

Viewing Student Learning through a Theoretical Lens

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Abstract

This study investigated a student with attention deficit/hyperactivity disorder (ADHD), named Jack, and his learning through examining the following three research questions: What has caused a student's, Jack, misbehavior and low academic achievement? Why is it important to solve the ADHD problem? What do teachers have to do to help ADHD students? This study aimed to discover the solutions to the ADHD problem. The participant was a 10 years old boy in Grade 4. The data gathering consisted of observation and teacher-student interactions. Qualitative approach was used to analyse the data. A number of recommendations have been made in relation to this study to assist primary teachers to help students with ADHD problem. The findings from this study have the potential to assist current and future primary school teachers in identifying effective strategies to solve students' problems of misbehaviour and learning difficulties for the purpose of enhancing their academic achievements.

Keywords: ADHD, learning progress, misbehaviour

1. Introduction

Students' learning progress is never at the same rate. It would be very hard for the teacher to give lessons to the whole class when students do not progress at the same level. The students who already have that knowledge would feel very bored, while the students who are left too far behind would feel frustrated in understanding the lesson. Some students, especially those who have difficulties or disadvantages in learning cannot understand the teacher's lessons. If they do not get extra help from the teacher immediately, over time, they would be left too far behind by other students, and cannot catch up. Moreover, as they are often criticized for their low academic achievement, they will lose self-confidence, and self-esteem. They would probably misbehave to attract people's attention or to show that they are important. The more they are criticized, the more they would misbehave. According to Vaughn, Haager, Hogan, & Kouzekanani (as cited in Nowicki, 2003, p. 172), "Long-term effects of childhood rejection can result in later risk of dropping out of school, poor workplace success, and adult adjustment problems". Consequently, the sequence would be linked into a cycle of poor social success and loss of self-esteem.

1.1 Background

When I did PE1 in Taroona primary school, I observed that in Grade 4, one boy named Jack had difficulties in concentrating on the class or doing class work. He could not make himself focus on learning, and could not manage his time effectively to complete class work. What he usually did is moving around, playing and talking with other students. When the teacher urged students to hand in their class work, he quickly produced low standard work. He also could not control his behavior and usually made a lot of noise during the class. Even though the teacher really understood Jack's psychological problem in learning and sent him to see a psychologist, she still got very angry and criticized him when he made noise in the class. Jack's academic performance, especially English spelling, reading, and writing, is much lower than his classmates. On one page of his punctuation exercise, the teacher wrote: Jack, you need help! However, the teacher did not get time to really help with his punctuation. It is true that it is impossible for the teacher to look after every student, giving extra help to the students who were left behind, and at the same time challenging the students who learned faster.

1.2 The Reason for Jack's Misbehavior and Low Academic Achievement

To solve students' misbehavior, instead of simply criticizing them, teachers have to know what reasons make them misbehave. By removing the causes, it is expected that the teachers will be able to solve students' misbehaving problem. Theory helps teachers with understanding that students' misbehavior may result from their psychological problems. From the psychological point of view, Jack's problem is called attention deficit/hyperactivity disorder (ADHD) (Habib, 2000). His behavior has most of the indicators of ADHD, for example, "easily distracted by stimuli, difficulty staying on task/completing task, makes careless mistakes, interrupts or intrudes on activities or conversations, blurts out answers, talks, and fidgets or moves excessively, gets up from desk work, has difficulty engaging in tasks quietly" (Woolfolk & Margetts, 2007, p. 156). As Jack has learning difficulties, if he does not get extra help, he cannot achieve in learning as much as the students who do not have the learning difficulties. Due to his misbehavior during school time, he was also often criticized by other teachers. However, if the teacher helps him to overcome his attention-deficit disorder, and to improve his academic performance, there may be less misbehavior from Jack.

1.3 The Importance of Problem Solving

It is very important for the teachers to help students with solving ADHD problem. This is because, firstly, a large population is affected by ADHD in schools. According to the American Psychiatric Association and Barkley (as cited in Ota & DuPaul, 2002, p.242), "Attention-deficit hyperactivity disorder (ADHD) is considered one of the most common childhood behavior problems, affecting from 3% to 5% of school-aged children". In recent years the number of children being treated for ADHD has substantially increased (Stein & Orlando, 2001). More boys than girls are identified as hyperactive (Woolfolk & Margetts, 2007). Since a lot of school students are negatively influenced by ADHD, teachers have to take it seriously.

Secondly, this ADHD problem solving is important because the academic and behavioral difficulties associated with ADHD problem are severe and chronic. The ADHD problem can lead to many negative results on students, for example, making noise, bullying, and lower academic achievement. According to Barkley (1998) and DuPaul and Stoner (1994) (as cited in Ota & DuPaul, 2002, p. 242), "Children with ADHD experience higher than average difficulties with academic achievement, and approximately 25% to 30% may also have one or more learning disabilities". The misbehavior from students with ADHD will also negatively influence other students' learning. Teachers will feel that ADHD students are too difficult and challenging to teach. Jack frequently makes noise or talks with other students during class time. This gives the teacher a lot of difficulties helping other students' learning. Also due to his low academic achievement, he cannot understand the lesson. If he does not catch up, over time, he will probably drop out of school.

Thirdly, the high risk for social difficulties in ADHD students' future life makes it necessary to solve their psychological problems. According to Woolfolk & Margetts (2007, p. 78), "Young children tend to make self-concept appraisals based on their improvement over time". Since Jack often receives criticism, and less praise from teachers, he will be likely to form low self-concept and low self-esteem. When he goes into society after schooling, he will be at a greater risk for social difficulties than average- to high-achieving children, and he will not appear to have accurate self-perceptions of social acceptance. As Nowicki (2003, p. 172) points out, "Children with learning disabilities are at greater risk for social rejection and negative self-esteem issues than are average- to high-achieving children".

In addition, inclusive education requires each child getting equal education, regardless of the presence or absence of disabilities. Inclusion means that children with and without disabilities are educated in the same general setting, often with special measures to facilitate interaction between disabled and non-disabled children (Tetzchner, Brekke, Sjøthun & Grindheim, 2005). According to Rogers (as cited in Nowicki, 2003, p. 172), "Inclusive education is the commitment to educate each child to the maximum extent appropriate in the school and classroom that the child would otherwise attend". Every child has the right to receive the same educational opportunities. Also because the economic development and political security of a country need every citizen's contribution, everybody has to be educated as much as possible, regardless of his/her disabilities.

2. Method

This study adopted a qualitative method, which enabled the researcher to gain an insider's view of the field through close association with both participants and activities within the setting (Burns, 1994). The data in this study was collected through observations of classroom practices and students. Observations took place in a Year-Four classroom. The researcher took notes on the important information related to a student's learning difficulties.

Data analysis is “the process of systematically searching and arranging the interview transcripts, field notes, and other materials that you accumulate to increase your understanding of them [the participants] and to enable you to present what you have discovered to others” (Bogdan & Biklen, 1992, p. 153). The data analysis in this study employed a qualitative approach which included the procedure of identifying patterns, labelling themes, and developing category systems.

3. Possible Solutions to the ADHD Problem

The teacher only sent Jack to visit a psychologist for help. She did not try different strategies to help him individually. One of the important reasons was that the teacher was too busy to teach him individually since she had another 22 students in her class to help. This makes it difficult to apply theory to practice. During lessons, the teacher used many role-play activities and games with the whole class. Jack enjoyed only those activities. However, when he listened to the teacher’s formal instructions or did class work individually, he still could not concentrate on it. As solving ADHD problem is important, rather than simply criticizing his misbehavior, teachers should learn effective strategies from educational theory, and apply it to their teaching. There are many interventions applied to treat students’ ADHD. Below are discussed four possible methods: drug therapy, self-control method, parental intervention, and teaching strategies.

3.1 Drug Therapy

Because drug therapy is the cheapest method and is easy to handle, it is the most common approach to intervention for the treatment of ADHD (Purdie, Hattie & Carroll, 2002). It does have many positive effects on the behavior of ADHD students, for example, inattention, hyperactivity, and misbehavior. By changing their behavior to focusing on learning tasks, it is reasonable to hope that students with ADHD will improve their learning.

However, there is ongoing concern about the possible side effects. According to Hedges, Frederick, Reimberr, Rogers, Strong, and Wender (as cited in Purdie, Hattie & Carroll, 2002, p. 88), “39% of individuals had significant problems with side effects, particularly fatigue and confusion, and had difficulty staying on their medication. Fifty percent of individuals experienced nausea, and 17% experienced lowered energy, gas, diarrhea or pain, insomnia, tremor, muscular tension or teeth grinding”. Varley & McClellan (as cited in Purdie, Hattie & Carroll, 2002) reported that some people even died of the pharmacological treatment of ADHD. There are also other negative effects on weight, appetite, blood pressure, heart rate, and sleep patterns, and so on (Purdie, Hattie & Carroll, 2002). It is possible that the negative effect was greater since the side effects may not be calculated in all studies.

Moreover, little is known about whether people with ADHD will be cured by using medication (Woolfolk & Margetts, 2007). Students are likely to behave the same as before if they stop using drugs. There also is no evidence that the drugs lead to improvement in academic learning (Woolfolk & Margetts, 2007). Because this drug therapy has many side effects, and there is lack of long-term benefit for students with ADHD, other solutions are important to be discovered to improve both students’ behavior and the educational learning outcomes, e.g., the students’ general cognition and their achievement in school subjects such as math and language.

3.2 Self-Control Method

When using the self-control method, students are taught to use self-monitoring, and self-managing as problem solving and motivational strategies, to develop self-control of their attention and impulse behavior problems, and to develop the ability of learning independently of teachers. According to Beresford (2003, p. 126), “Students need to develop the ability of independent learning, problem-solving skills and techniques in order to process and learn from the wide information base now available”. They need to develop and refine their own learning strategies so that they can organize their time to learn independently. Jack did not know how to manage time efficiently. Either he first walked around, played and talked with other students. When the teacher pushed him to hand in his class work, he quickly finished low standard work. Or he quickly handed in low standard work first, so that he could get time to do something he liked. Anyhow, he only spent very short time doing class work. Due to the fact that he did not spend long time in learning, he did not achieve as much as other students.

An idea is that the development of certain teacher behaviors in schools will improve teaching. In the same way, it is suggested that the development of certain student behaviors will improve learning (Beresford, 2003). Students, with and without ADHD, need to learn and develop a habit of self-controlling their behavior in order to focus on their tasks. They need to improve attention, academic productivity, and decrease off-task behavior in the classroom to enhance their learning. In doing so, students can decrease the reliance on teachers, parents, or peers for behavior change, and maintain acquired skills in untrained settings.

Students can be taught to self-observe their own behavior on a specific aspect, and ask themselves “Am I paying attention?” By using this method, hopefully students will self-control their attention on tasks. Students can also use the MotivAider to self-monitor their attention. The MotivAider is an electronic beeper that vibrates to provide a tactile cue to self-monitor. It attaches to the student’s waistband and can be programmed to emit a cue for any desired length of time and on a continuous or intermittent schedule (Amato-Zech, Hoff & Doepke, 2006). Students viewed the MotivAider as a tool to help them stay on task. “Upon implementation of the self-monitoring intervention, students increased levels of on-task behavior from a mean of 55% to more than 90% of the intervals observed” (Amato-Zech, Hoff & Doepke, 2006, p. 218). Therefore, it is reasonable to say that students with learning and behavioral challenges can effectively improve their behavior by using self-monitoring method. If Jack receives this self-control method, he would be likely to develop self-control, self-management, and independent learning. In the long run, this development will benefit him by regulating and promoting his behavior change, and enhancing his academic performance.

3.3 Parental Intervention

Parental intervention is “when parents assist to manage their children’s ADHD-type behaviors by learning the relevant skills” (Purdie, Hattie & Carroll, 2002, p. 68). Parents are children’s important teachers at home. Children’s growth needs supportive environments from both home and school. As Atkin et al (as cited in Bartholomew and Gustafsson, 1997, p. 1) pointed out, “When professionals and parents share some of the same goals, and work together in an active partnership, things can really begin to happen”. Therefore, it is necessary for parents to develop some basic knowledge and skills to deal with children’s ADHD-type behaviors. Teachers could frequently interact with ADHD students’ parents, and exchange ideas and observations of their behavior. They could also communicate with students’ parents to find which methods are effective in order to keep doing them, and which methods are not effective in order to change them. With parents’ help, it is expected that ADHD students would improve their both behavior and academic performance.

However, parents may not be able to help their ADHD children at home. They may not be well educated, and it is impossible for teachers to educate them. As a result, they do not know how to help their children. Some parents may have bad habits like taking drugs or drinking alcohol. They thus could not be able to give their children supportive environment at home. Reviews by Fischer (1990), Mash and Johnson (1990), and Pelham and Lang (1993) (as cited in Purdie, Hattie & Carroll, 2002, p. 68) indicated that “Families of ADHD children are often dysfunctional in a range of areas, for example, maternal stress and depression, paternal alcohol abuse, and inappropriate parental discipline”. Jack’s parents are not well educated. When the teacher reported Jack’s misbehavior to his mother, his mother got very angry at Jack. The teacher thus did not dare to let his mother know because of her reaction. She had a dilemma about whether or not to communicate with Jack’s mother about his behavior. Therefore, although adopting theory is helpful to ADHD students, it is hard to do.

3.4 Teaching Strategies

To enhance students’ educational outcomes, it is necessary to use teaching strategies. According to Beresford (2003, p. 133), “Students seem to learn best when teachers use a variety of teaching styles and strategies, students are equipped to cope with the range of teaching styles and strategies, students find lessons interesting, and students are taught new ways of working and learning”. Dupaul and Eckert (as cited in Purdie, Hattie & Carroll, 2002, p. 89) also suggested, “If we are looking to promote educational success among students with ADHD, we must use strategies that directly address their academic difficulties”. It is most likely that teaching strategies that work with other students are also effective with ADHD students. Teachers can adopt some strategies suggested by Woolfolk & Margetts (2007): Using lots of pictures (visual clues) to help students learn, reinforcing when they are doing well, realizing that they are intelligent, allowing them to walk around the classroom, being patient, giving them more breaks and recess.

They can also use tools, such as computer software, to assist their teaching. It is assumed that using software with a game format may be useful in supplementing teacher-delivered math instruction for students with ADHD, because of the stimulating nature of the stimuli and it can provide students with the immediate performance feedback. Ford et al. (as cited in Ota & DuPaul, 2002, p. 254) found that “Using this software with a game format decreased off-task behaviors and increased active engagement compared to typical classroom instruction”. Students’ academic performance is normally affected by many factors, for example, opportunities to respond, salience of reinforcement, feedback, and opportunities for error correction.

4. Conclusion

In this study, the observation of a student, Jack, with ADHD is described. To deal with his behavioral and academic difficulties, the causes of difficulties, the importance of problem-solving, and some possible solutions

are discussed. ADHD is the main cause which leads to Jack's behavioral and academic difficulties. As ADHD is a severe and chronic problem, and it negatively influences a large population in schools, it needs to be solved as quickly as possible. A variety of interventions, for example, drug therapy, self-control method, parental intervention, and teaching strategies, are possible to enhance the classroom functioning of students with ADHD. The single intervention may not be effective to solve students' ADHD problem. Therefore, a combination of interventions is likely to meet students' needs comprehensively, and the specific combination of interventions has to vary among students depending on individual student and classroom environment factors (Ota & DuPaul, 2002). Although sometimes it is difficult to apply theory to practice, it is very important for teachers to learn from theory and master many different strategies, so that they can flexibly use the most effective method to deal with students' different difficulties.

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