

## A Case Study on Teaching ADHD Student

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### Abstract

**Special education is highly valued in Hong Kong. Financial support and sufficient teaching resources have been provided by government every year, advocating equal access to education for all. ADHD has captured attention of many educators, researchers, mental health professionals, and parents across the country in recent years. The purpose of this study is based on an ADHD case study to make an intervention plan on teaching strategies to help ADHD student achieve school success and fulfil effective learning.**

### Keywords

**ADHD; Intervention; Teaching strategies.**

### 1. Introduction

For a long period of time, students with mental retardation, physical disability, or sensory impairment were considered to have special needs (Luan,2010). As a result, countries have set up special education or other institutions to meet their special needs. According to Sun (2014), Hong Kong launched the Integrated Education Pilot Program in 1997. Later, the government issued a new funding model in 2003, providing a certain amount of subsidy and teaching support to schools who offer opportunities for special needs students. The new funding model has continuously been developed since 2008. Today, Hong Kong has formed its own unique three-tier support model in inclusion. Xian and Du (2001) point out that inclusion provides equal education right to all children, advocates students with special learning needs to attend mainstream schools and gives exceptional learners opportunities to participate fully in all activities offered to people who do not have disabilities.

During recent years, ADHD has captured attention of many educators, researchers, mental health professionals, and parents across the country. Bender (1997, p.8) defines Attention Deficit Hyperactive Disorder (ADHD) as “a set of behavioral symptoms including impulsive participation, an inability to attend to task and overactivity.” Knowles (2006, p.10) holds a similar view that ADHD is a “neurological disorder characterized by impulsivity, hyperactivity, and in attention.” From above definitions we can find that the main characteristic of ADHD students is that they are easily to be distracted and hard to stay seated for a long time. Bender and Mathes (1995) also claims that such kind of students often demonstrate significant educational problems. Deficits have shown in written expression (Resta&Eliot,1994), listening skills (Forster&Doyle,1989), impulse control (Korkman&Pesonen,1994), reading (Fergusson&Horwood,1992; Rowe&Rowe,1992), and general academic achievement (APA,1994). To be successful in learning, these academic deficits will often require significant educational interventions beyond what is required by children without ADHD. Based on a certain case of ADHD student, this paper mainly aims at proposing teaching strategies in helping ADHD students learn.

### 2. Case Study

The case is an excerpt from a book written by George and Gary.

Greg is a 7-year-old first grader in a general education classroom in a public elementary school. According to his parents, his physical and psychological development were “normal” until about the age of 3 when he first attended nursery school. His preschool and kindergarten teachers reported Greg to have a short attention span, to have difficulties staying seated during group activities, and to interrupt conversations frequently. These behaviors were evident increasingly at home as well. Currently, Greg is achieving at a level commensurate with his classmates in all academic areas. Unfortunately, he continues to evidence problems with inattention, impulsivity, and motor restlessness. These behaviors are displayed more frequently when Greg is supposed to be listening to the teacher or completing an independent task. His teacher is concerned that Greg may begin to exhibit academic problems if his attention and behavior do not improve. (George & Gary, 2003, pp.1-2).

Therefore, as Greg’s teacher, in order to help him achieve school success, it is important to implement some interventions in teaching.

### 3. Intervention

Greg is going to learn some food items in his English class. Upon completion of the lesson, Greg is able to achieve three intervention objectives: 1) Follow the instruction that teacher gives him; 2) Concentrate more on learning tasks; 3) Have a better concept about what appropriate behavior is and what is not so that he knows how to behave well in class and get along with classmates. Based on Greg’s case, some strategies are proposed for teaching in class (appendix 1).

#### 3.1. Display Classroom Rules

In the intervention, students have four rules to follow in this class: 1) I will be nice to other people in the class; 2) Get along with other people; 3) Follow instruction teacher gives me; 4) Do my best. According to Dowdy (1998, p.73), “A very good method for managing classroom behaviors is to establish rules.” It is necessary for teacher to state classroom rules clearly before class, to let students know what is expected of them and what the consequences will be if they disobey the rules. Without this control, little learning will take place. Visual display of classroom rules is also needed, and teacher should stick to board to remind students. Visual display can attract student’s attention. “An attractive display of the rules will help focus students’ attention” (Dowdy, 1998, p.74). Once developed, teacher should consistently review the rules with students. “This is the most important aspect of classroom rules. When not applied consistently, classroom rules can become a barrier to classroom management” (Dowdy, 1998, p.74).

#### 3.2. Token Economy

In the intervention, stars are chosen as tokens with 4 kinds of colors to represent 4 different rules. If students behave appropriately will receive a token as reward. At the end of the class, all the tokens will be accumulated to exchange for reward, such as “privileges, activities or tangibles” (Linda, 1996, p.88). Parker (2002, p.32) describes token economy as “a form of behavioral contracting which uses tokens as an immediate reward for certain behavior or task performance.” Token economy provides immediate reinforcement to “sustain effort on low-interest tasks and maintain motivation” (Sandra, 2005, p.127). “Tokens are especially effective for ADHD students because they can be given right away and often” to monitor students behavior and increase appropriate behavior (Linda, 1996, p.88). If students show inappropriate behaviors, response cost will play its role. Students will get a reduction from the tokens they have already got. Bender (1997, p.165) states a response cost strategy is used to decrease inappropriate behavior. Teacher should make clear the implementation rule when adopting this strategy in class.

### 3.3. Instructional Strategies

#### 3.3.1. Visual Aids

Flashcards (appendix 2) and video are used as teaching materials. Peter (1973, p.14) shares the opinion that “Good visuals are powerful motivators. They can capture and hold the learner’s attention.” Bender (1997) and Janet (et al.,1995) also claim that visual aids increase ADHD students’ learning motivation. William and Helen (1968, p.1) point out that “visual aids help to provide situations which light up the meaning of the utterances used.” Salah (1974, p.2) views such kind of aids meaningful in contributing a great deal to “make learning more enjoyable and more efficient”, such as “making vague ideas clear and bringing them within the level of understanding of the student” and “helping learners to remember the material for a longer period of time” (Salah,1974, p.8). Sandra (2005, p.427) also describes that visual aids “enhance memory and retention.” Chomsky (1988, p.181) claims that “the importance of activating the motivation of a learner is ninety-nine percent of teaching is making the students feel interested in the material.”

#### 3.3.2. Cooperative Learning

Students are divided into a group of four to make sandwiches. In order to avoid quarrel and impulsivity of ADHD student, specific jobs are given to each group member. In addition, they have to follow one rule, which requires everyone to participate and support each other. Bender (1997, p.220) points out that “cooperative learning is particularly beneficial for the student with ADHD in the classroom because it allows for high response opportunities, shorter wait time, and increased structured peer interactions.”

#### 3.3.3. Questioning

Frequent questions are given to students in the intervention, especially to student with ADHD. Sandra (2005, p.149) holds a view that “one of the most effective ways of ensuring that all students are actively engaged is through specific questioning techniques that require a high rate of student response.” Wragg and Brown (2001, p.56) agrees that “questioning is a valuable stimulus for active learning.”

#### 3.3.4. Activity

“It is often difficult for students with ADHD to sit and work for a long period of time. Note-taking sessions that last 20-25 minutes can be especially challenging for students with ADHD” (Bender,1997, p.155). Therefore, three activities are designed in the intervention: sing a song, leave seats to do a survey (appendix 4) and make a sandwich. The activities created can offer student with ADHD a pleasant learning environment and an opportunity to stretch and move around. According to Harmer (2007), activity creates a bridge between learning and doing. Kim (1995) shares the view that classroom games can help teachers achieve good classroom dynamics in language teaching because games usually create a meaningful context to energize a dull lesson and play a significant role in encouraging students’ cooperation and communication.

### 3.4. Immediate Feedback

At the end of the class, immediate feedback about behavior is given to student with ADHD. Parker (2002, p.30) claims that “behavior of students with ADHD is modified best when feedback is provided at the ‘point of performance’ and not several minutes, hours, or even days later.” Positive reinforcement strengthens appropriate behavior while punishment will weaken inappropriate behavior.

## 4. Conclusion

Although there is currently no clear medicine to cure ADHD. However, from educational perspective, though meeting the needs of ADHD students presents significant challenges to educators, but this kind of students are teachable. Therefore, in order to achieve successful teaching and learning, educators must expand their understanding and increase awareness of the students with this disorder. At the same time, educators need to be patient and responsible, taking every teaching task seriously and adopting different teaching methods and activities based on the different characteristics of ADHD students, so as to help them manage their behavior and improve academic performance.

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## Appendix 1: Intervention plan

Topic: Food

Subject: English

Grade: Primary 1

**Lesson duration:** 40 minutes

### Intervention objectives:

Upon completion of the lesson, Greg is able to

- 1) Follow the instructions that teacher gives him
- 2) Concentrate more on learning tasks
- 3) Know how to behave well

### Teaching methods:

Audio-visual teaching; cooperative learning

**Teaching resources:** word audio; flashcards; tokens; song video; worksheets; color markers; bread, lettuce, jam, milk, cups,

### Rundown of the lesson:

Time	Teaching content	Teaching procedure	Intervention	Material used
8 mins	To learn or review some food items: rice, eggs, bread, fish, sandwich, pizza, milk, chocolate, sweets, cake, ice cream, chicken, hamburger, jam, coconut, strawberry, pear, cherry, grapes, pineapple, watermelon, peas, carrot, broccoli, mushrooms, lettuce, tea, orange juice	<ol style="list-style-type: none"> <li>1. Teacher show each flashcard one by one (stick the flashcard to blackboard when showed to students or ask students to stick). If teacher thinks students know the word, try to elicit students saying out the word. If they do not know, then teach the pronunciation and spelling.</li> <li>2. Teacher play word audio and ask students to match the related pictures on blackboard to examine what students know and what words are new to them. For those words they are not familiar with, try to repeat several times until they are familiar with.</li> </ol>	<ol style="list-style-type: none"> <li>1. Teacher states clearly that the class will follow a token economy rule: if you behave appropriately will receive a token as reward. At the end of the class, all tokens will be accumulated to exchange for rewards, the more the better.</li> <li>2. Teacher invites Greg to the blackboard and point out the correct picture he hears. The other students check whether he is right. Teacher can also ask question to draw his attention, such as "what is your favorite food".</li> </ol>	Flashcards ; word audio; tokens

			3. Visual display to attract Greg's attention.	
20 mins	1. Food song: chocolate cake ( <a href="https://www.youtube.com/watch?v=dQWdRg9vCes">https://www.youtube.com/watch?v=dQWdRg9vCes</a> )	<p>2. Teacher plays the song for students.</p> <p>3. Teacher plays the song again and follows the lyrics to make a demonstration for students, clapping and tapping. Let students get involved in (twice).</p> <p>4. Teacher asks students: Do you like chicken rice and peas? Put your hands up (the other two same) and count the total number.</p> <p>5. Based on the counting, teacher asks students is chocolate cake the most popular? Students give the right answer of the most popular food.</p> <p>6. Teacher leads students to do the worksheet 1. Teacher can invite students to answer, especially Greg.</p> <p>7. Teacher asks students to survey their classmates about the food they like and finish worksheet 2. Explain the instruction clearly before let students start: Students are required to create four more questions and then survey their classmates. If they say yes, put a tick next to the question. Monitor and help while students are doing the survey.</p> <p>8. After the survey, show students how to complete the bar chart by doing an example on the blackboard. Demonstrate counting the ticks for each food, such as asking how many ticks have you got for each food? (Teacher can especially invite Greg to give his result) Let students count the ticks. Write the word and then color the corresponding number of squares in the line.</p> <p>9. When they finish the counting, ask them in their survey, which food is the most and the least popular.</p>	<p>1. Music for relaxation</p> <p>2. frequently asking questions to check whether students follow instructions.</p> <p>3. Provide students with time to leave their seats doing a survey, especially good for Greg.</p> <p>4. Audio-visual teaching.</p>	Song video; worksheets; color markers
10 mins	Make a sandwich	<p>1. Teacher asks students to form a group of 4 and stand up in this activity.</p> <p>2. Teacher states the activity and assign specific jobs to each student: We are going to</p>	<p>1. As for Greg's group, arrange him to the group of well-behavior students.</p> <p>2. Assign specific jobs to each student to</p>	Bread; lettuce; jam; milk; cups

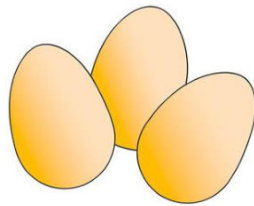
		<p>make a sandwich. The ingredients we need are bread, lettuce, jam, milk (teacher present the real materials). Now I want each group appoints one person to the platform and take some bread for your group. Next person comes to take the lettuce. Next person comes to get the jam. The last person will prepare the milk when the sandwich is ready.</p> <p>3. Teacher teaches how to make a sandwich: 1) The one who holds bread (ask students to put their hands up to see whether they follow instruction, so do the following steps) put one piece of bread in your palm. 2) The one who has jam add it to the bread. 3) The one who has the lettuce put the lettuce on the bread. 4) The one who has bread put another piece of bread on the lettuce. Done!</p> <p>4. Teacher asks students to repeat the procedures and make three more sandwiches so that everyone in the group will have a sandwich. Monitor and help while students are making a sandwich.</p> <p>5. When everyone gets a sandwich, the last one who does not have ingredient goes to the platform and prepares 4 cups of milk for each group member. Monitor and help while student is pouring milk.</p> <p>6. Enjoy the sandwich.</p>	<p>avoid quarrel.</p> <p>3. Provide student the opportunity to learn through hands-on practice so that they can be attracted, concentrate more and learn more effectively.</p> <p>4. Cooperative learning helps peers monitor each other's learning progress and promote efficiency.</p>	
<p>2 mins</p>	<p>Reinforcement</p>	<p>Teacher accumulates Greg's tokens. Ask why he has got many or few, to let him do a self-reflection on what he has done right or done wrong. If he has done well, teacher gives verbal praise and ask him to keep on. Exchange reward for him because he deserves that. If he has not done well, invite another student together with him to act his inappropriate behavior out, and ask Greg such as "Do you like it? Do you want people to treat you like this? Then what should you do next time?"</p>	<p>Give feedback to Greg so that he knows what appropriate behavior is and what is not. Next time he can then try harder to manage himself and improve.</p>	



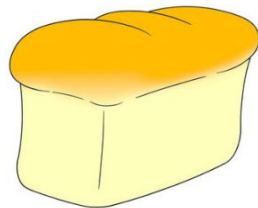
## Appendix 2: Flashcards



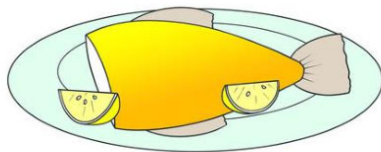
rice



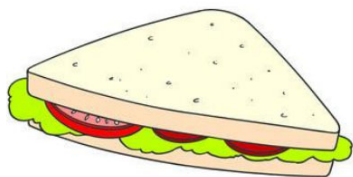
eggs



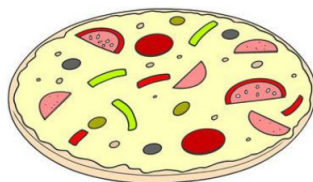
bread



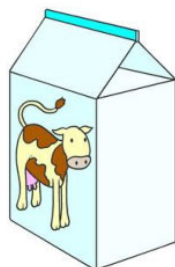
fish



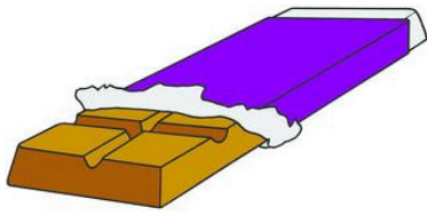
sandwich



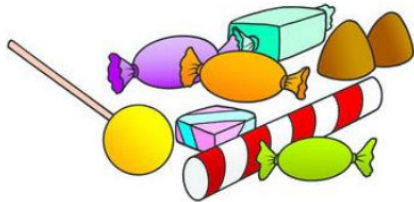
pizza



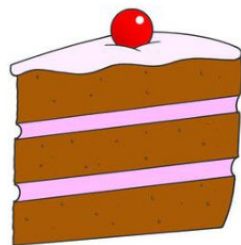
milk



chocolate



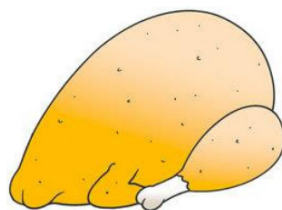
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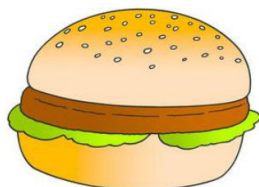
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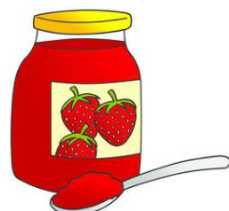
ice cream



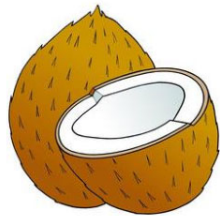
chicken



hamburger



jam



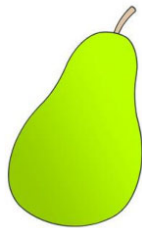
coconut



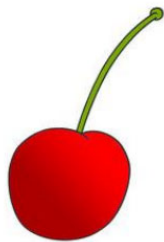
tea



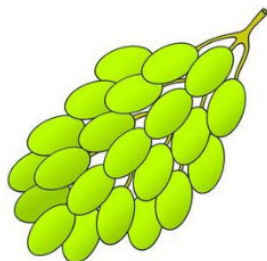
strawberry



pear



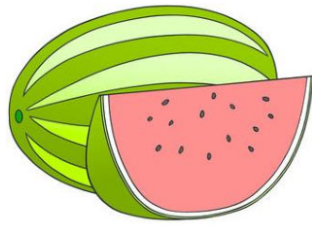
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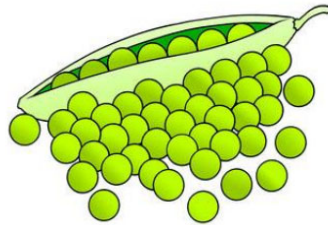
grapes



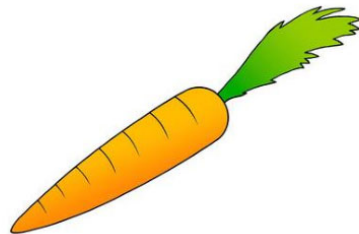
pineapple



watermelon



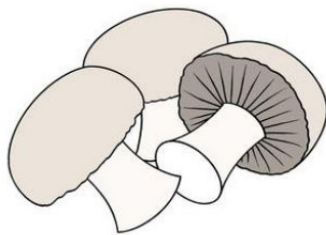
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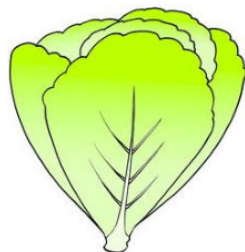
carrot



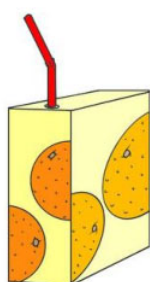
broccoli



mushrooms

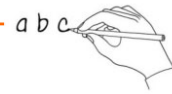


lettuce



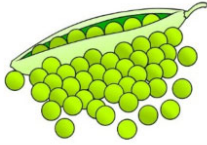

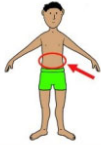
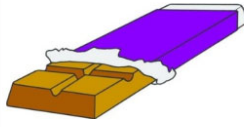
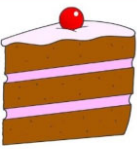
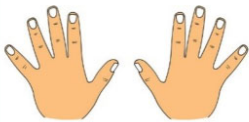


orange  
juice

## Appendix 3: Worksheet 1



### 1. What's the word?

Write the word under the pictures.

chicken	rice	peas	juice
chocolate	cake	hands	tummy
			
	chicken		
			

## Appendix 4: Worksheet 2

### Ask your friends!

What food do you like?

Do you like chocolate cake? ✓									
_____?									
_____?									
_____?									
_____?									
_____ chocolate cake :									
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