

Cognition enhancement through play among special remedial students

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The study is aimed to identify the extent to which play activities to play while learning improve students' level of thinking and recovery recognition. This study was conducted on six special remedial (Year 2) students aged 8 years old in a primary school. Datas were collected through observation and interviews. Datas were analyzed in narrative form. The results showed that there is a positive relationship between playing and learning activities and recovery cognition.

Keywords Play, rehabilitation students, learning activities, cognition enhancement

Introduction

According to studies by expert educators, children with special remedial have low intellect and intelligence and lack of ability to fully receive regular education. They are less able to make inferences and not confident to face their problems in learning activities. To help these students in their learning problems, the special remedial program is the most effective teaching and learning activity. Special remedial students are in a different class in terms of physical, emotional, spiritual, intellectual, experience and talents. Therefore, the ability to learn is also different. In class that surrounds many students, these differences cannot be addressed by the teacher. Moreover, teachers have to use whole-class method in their teaching activities to cover the syllabus. In this situation, students who have low ability to learn would not be able to understand properly what is taught by the teacher. As a result, students are left behind because they will not be able to master the information delivered by the teacher.

Therefore, remedial programs should be provided to special remedial students. According to Mohd Sharani (2006), children with learning disabilities are those with neurological problems that affect their understanding, use of language, composition, speech, writing, thinking, reading, spelling, mathematical skills and have learning difficulties. They do not have the ability to pursue a formal education like other children at their same age level.

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There are two main indicators to identify their learning difficulties. Although the special remedial students are able to learn, their learning rate is very slow and weak due to the development process that resembles children who are a few years younger than them. Secondly, the cognition development is deferred specifically in intellectual, language, academic achievement, social competence and vocational skills. The characteristics of a distressed child in learning are being weak in reading, writing, arithmetic as well as easily confused with particular numbers or alphabets. They are also not able to remember the sequence of numbers or alphabets. It is difficult for them to follow instructions, have emotional disturbance, a degree of intelligence between 70 and 80, lack motivation, shy, timid, easily distracted, always fail in training and testing.

Special remedial students need particular attention and guidance during learning activities. They are not motivated to learn, do not know how to learn and how to solve problems as well being indiscipline in class. They are also distracted and give up easily. They are usually less intelligent, slow thinking and responding and quick to forget skills or new facts which were just learnt. Therefore, special remedial programs should be available to help encounter their learning problems. Based on Concrete Operational Stage from 7 to 12 years old Piaget and Inhelder (1962) said that, children start to acquire transformation concept, control process and inversion process. In addition, the children are able to learn more than one aspect at one time. Children would have adequate information about inductive or deductive thinking as well as the concept of time and speed. Nevertheless, the ability to think logically is still limited and they are still unable to think in an abstract manner and solve complex problems.

Theory of Multiple Intelligences by Howard Gardner is defined as "An intelligence is the suggested ability to create products that's valued within one or more cultural settings." (Gardner, 1983). Multiple Intelligences include eight types, i.e. Verbal-Linguistic, Logical-Mathematical, Visual-space, Kinesthetic, Musical, Interpersonal, Intrapersonal and Naturalist. Verbal-Linguistic Programming is the ability to use words effectively in oral and writing. A person with this intelligence is skillful to manipulate the words and meaning. They can also communicate effectively through the activities of listening, speaking, reading, writing and relate. They are also alert to the various language functions, especially in terms of its ability to generate their emotions. The most effective way of learning for this group is to use the station as well as learning and teaching through verbal descriptions.

Mathematical logic is reasoning ability, solving complex problems, making connections like questioning, critical, efficient computation, making comparison, efficiently solving problems related to the number and using the computer. This intelligence combines both mathematical and scientific abilities. Mathematicians for example, tend to solve the abstract problem and reasoning. Scientists, however, are driven by the passion to explain the real physical world. The group learned more effectively through the methods of problem solving, inquiry, discovery and cooperative learning. The Visual space is the ability to detect and describe the form, space, color and lines, including the ability to present visual ideas and space graphically. They are also capable in the art and creative in the choice of use of colour, map reading and strong imagination. They learned effectively through demonstrations, videos and diagrams and this can contribute to the project through charts and diagrams.

Kinesthetic intelligence is the ability to use the body to state the ideas, feelings and to solve problems, including physical skills like coordination, flexibility, speed and balance. Someone who has the intelligence is well versed in manipulating objects and activities involving fine and gross motor skill. They enjoy physical activities such as

dancing, playing and exercising and efficient use of motor skill activities. They are capable to learn through acts such as simulations, games, role play and building models. Musical intelligence is the ability to detect rhythms, tone and melody, including the skills to know the song and change the tempo and rhythm of the simple melody. A person who has this intelligence is also sensitive to sounds like voices and musical instruments. Everyone has musical intelligence but on different degree. while some are more skilled than others. Students who have a high musical intelligence prefer to learn orally and like to do dance-type activity, gymnastics and background music.

Interpersonal intelligence is the ability to understand the feelings, motivation, desires, habits and others. Those who have interpersonal intelligence can work in group and communicate verbally or nonverbally with each other. Interpersonal skills are more complex. It is the ability of adults to read another person's intention even implicitly. Students with this intelligence will learn more effectively through cooperative learning and peer teaching in class discussions. Moreover intrapersonal intelligence is the ability to understand yourself inner strengths, weaknesses, wishes and desires, Naturalist intelligence is the ability to identify, classify and appreciate plants, minerals and animals including flora and fauna. Those who have this intelligence and polar could relate the close relationship between plants and animals habitat. Students with naturalist intelligence will learn effectively through outside the classroom activities.

According to Stagnitti et al. (2012), children's language and social skills over a 6-month period within a special school setting, using the Learn to Play program is an effective intervention for children with developmental disabilities. Playing is the most important element for the development of pupils in terms of physical, emotional, physical, spiritual, intellectual, and social creativity. According to Vygotsky (1976), the main function is to rebuild a reality without the influence of situations or obstacles and move directly intellectual development. Games can be used at all levels in language syllabus and with all types of pupils from primary school children to adults. This clearly shows that the learning game will help students to understand what is being taught by the teacher. According to Wong and Kasari (2012), children with autism engaged less time in symbolic play and joint attention behaviors as compared to children with other developmental delays. According to Mundy et. al. (2010), Stanley & Konstantareas (2007), student with special needs have cognitive deterioration and required special education and care.

The objectives of this study were to identify playing and learning activities to increase student retention and exclusive remedy, to identify playing activities while learning on the quality of students' special remedial reading and to identify play and learning activities will enhance their skills in a number of sensitivity among special remedial students.

Methodology

In this study, qualitative research was selected by using the case study method. Qualitative research refers to research that is produced from descriptive data acquired by a note or speaking and observation of one's behavior (Taylor & Bogdan, 1984). According to Chow Fook Meng (2005), the qualitative approach is a process of inquiry to explore social issues. Researchers are trying to build a holistic picture of the situation, an event or a complex phenomenon. Qualitative research does not aim to make a justification of a situation or case, but to understand the process of how a person gives meaning to the cases studied. Therefore, this research approach is to explore and

understand the views together with the study of the issues and processes that occur in real-life situations.

The participants for observation purpose in this study were 6 special remedial students of Year 2. Researchers also observed the students act without interference or without participating in every activity they did. This case study will involve special remedial students and 6 were selected from a primary school in Perak state. The researchers divided the sample according to the sample prior to the selection. Without Participating in observation, researchers simply observe and collect data without having to create any interaction with the participants or the environment. Parents are informed of the participants of this study and their consent was obtained through a letter of consent which is the informed consent letter.

In the 3 months period, the collection of data was carried out via interviews and a total of 3 observations, out of 6 pupils during the teaching and learning sessions in the special remedial room carried out.

During this period of data collection the researcher took the opportunities to talk to the school administrators and other teachers to know the participants better. Intensive data collection activities that have been done are sufficient for 3 months after obtaining all the necessary data. However, current data analysis activities (after March 2013), the relationship with the study participants, the special remedial teachers in school continued throughout the study, especially when he was asked to review the data that has been rewritten for verification purposes. In addition, there are times when he called to ask for further clarification of certain matters that were detected in the activity of data analysis.

Record Rate Scale can be used to indicate the degree of progress and achievement of a pupil's behavior. Teachers assess students' skills and practices based on the scale. Scales used can be expressed in figures or grade. Achievement level can be determined for a range of skills in the use of scales. The use of this instrument is specific to all cords. Anecdotal records a brief note about an event or behavior of students who are considered important, unique and significant to be recorded. Objectively written anecdotal records are used to explain what happened, when and where an event occurred. Among the things that need to be considered in anecdotal records is making observations of events, identifying the importance of the event, significant aspects of students' development, covering the advantages and disadvantages, writing the information after an event occurs and write what is viewed objectively.

In anecdotal records, regular information recorded is based on events that depict the development of language and literacy, social interaction patterns and problem solving skills of students. Continuous record was an entry in the form of stories or narratives that are made on an individual or group of students during the event. Each treatment and what is spoken by the pupils will be recorded during the observation. Detailed observations are usually carried out in three to eight minutes and it can take place in a period of time, which is about twenty-five to thirty minutes. Procedures to provide continuous records are first that the teachers should focus on helping those who want to be observed. Next, the item will be focused during the observation needs to be ensured. The third step is to record what is done by the students in detail. The record must be accurate and comprehensive. The last procedure should be observed by clearly noting every act in sequence.

This study covers several methods of data analysis and screening proposed by Miles and Huberman (1994). For this purpose, the researchers developed a data compilation and storage system by making summaries, reflection as well as memo notes. This data management is called as case study by Yin (1994) or case record (Patton,

1990). A great deal of data was obtained from this study. As explained, this information should be compiled and kept in a readily available form to be used in the analysis after data collection. Six video recordings made for intended use in observation. All recordings were played back to see the events and issues of content and focus research and learning in special remedial classes. According to Merriam (1998), analysis of data simultaneously and continuously during data collection continued to proceed further with more intensive in the case study. He suggested all the information gathered about the case should be grouped together.

According to Miles and Huberman (1994), an intensive analysis of the second stage will involve the screening of data, presentation of data and drawing conclusions. Screening of data was made during the early stages of the analysis process continued after the completion of data collection activities. In this study, a set of encoding is designed to serve as a guideline for data screening. Coding is performed based on predetermined categories and based on the theoretical framework and research questions which are known as analytical themes. Category is important in the analysis of qualitative data to give meaning based on the context and meaning of the study participants.

Findings

Summary of findings derived from this study is as follows:

1. Based on the first observation on sample 1 to sample 6 showed that cognition special remedial students is enhanced through play and learning activities. Pupils demonstrate positive behavior and characteristics as well as memory power that never appeared prior to this.
2. Based on the second observation, students can show that they can spell and read normal reading materials. It is proved that the activity of playing and learning to improve the quality of students' reading is an exclusive remedy.
3. Based on the third observation, students show such characteristics can develop sensitivity of numbers. This feature is very clearly seen through playing and learning activities among students of special remedial through how to answer the question, how to get involved, mimic face, body language, voice and others.
4. Based on the analysis of the interviews, the researchers found that the teachers are confident that the special remedial playing and learning activities can change the standard of special remedial students by improving various aspects of cognition. Teacher also explained that the development of memory, reading quality, sensitivity of numbers has existed in the minds of students through the typical remedial playing and learning activities.

Discussion and conclusion

Therefore when you see the importance of games based organized teaching and learning methods are needed to produce balanced students in aspects of cognition, then activities of teaching and learning should be planned and managed carefully and systematically to ensure that each special remedial student has equal opportunities in the teaching and learning either in class, group or individual. Further, adults who are directly involved with special remedial education must play their role in ensuring that weaker students are getting the proper rights in the country's education system to keep pace with the greater challenge that they will face in mainstream classes in future.

Special remedial teachers are the most important in the success of the concept of learning through playing activities that enhance cognition of special remedial students because the teacher is the frontline in the realization of the curriculum planned by the ministry. If the frontline does not play its due role then as any planned curriculum it would not have any meaning. Thus, the seriousness and sincerity of special remedial teachers in planning activities are compatible receiver play is very important. It is essential in realizing that the vision and goals of the National Education Philosophy is extremely welcomed by all parties. The findings of the study provide some suggestions for teaching and learning in order to be effective in producing a balanced student where development aspects of cognition continue. The level of cognition needs to be enhanced since school days and among the proposals which need to be considered are as follows:

1. To successfully study and implement activities effectively, and therefore the special remedial teachers need sufficient training and understanding. This enables the teachers to plan and conduct effective as well as interesting playing activities in the special remedial classes in order that this can help to enhance the cognition level of the students.
2. Further training for teachers who have been long specialized in cognition remedial teaching should be carried out so that it can equally follow the development of the latest educational technology in teaching adapted in special remedial classes .
3. Close relationship between the children's parents and the school special remedial should be established through discussions, meetings, specific activities, etc. so that the objectives to be achieved by the teachers and the school are known and supported by the parents.
4. The school administrators need to know and be concerned about the implementation of a special remedial program that could lead to the implementation of appropriate playing activities to enhance students' cognition. School administrators should also be given exposure and awareness of the importance of implementing appropriate activities to stimulate students' minds.
5. School administrators need to provide appropriate and relevant teaching aids so that the pupils' aspects of cognition can be improved effectively.
6. The schools need to create awareness among parents on the importance of appropriate games that sluggish children can develop mentally and learn to think effectively. Parents are aware that they can plan and implement playing activities in which children can learn and develop a skill.
7. Studies need to be done to build effective and suitable playing cum learning modules for a variety of special remedial students.
8. Studies need to be done on the factors that can help improve cognition so that special remedial teachers can focus more on aspects that can improve cognition of special remedial students.

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