A Person with Moderate Mentally Retardation How Able to Draw a Flower by Means of the Visual Clues

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Abstract

In this case study research, a person with moderate mental retardation was taught to draw a flower using incremental visual clues. This process was observed and evaluated. The case study was carried out with B.C. a seven year old child with moderate mental retardation. To record the findings an observation form was developed and utilised by the researcher. Using this form B.C.'s performance drawing a flower was observed and recorded over time. The data was transferred into a computer program where the results were analysed and displayed on statistical chart. The results of the research showed that B.C. acquired the ability to draw a flower independently after 13 sessions. Based on these results, further suggestions for research were made together with a discussion of potential applications for the method used in the study.

Key Words: mildly mentally retarded, Drawing, Visual Arts Education, Special Education.

Introduction

"At the base of learning structures of children, lies the skill to imitate. Children correlate between what they see and hear and the level of their ability to do and they try, experience and as a result, at the end of this process, they learn" (Morrow, 2005). Apart from children being able to do what they see, it is important to reflect what they see. The skill to reflect constitutes one of the fundamental criterion of visual arts education (Özsoy, 2003).

Generally, visual arts education is perceived by educators as an area where visual perception is intensely experienced and reflected. Accordingly, visual arts education is a type of education that adapts and puts emphasis on children's visual perception and visual structuring criteria (Kırışoğlu, 2002). It is known that children are introduced to visual arts education in early childhood. Examples of their experiences include; learning to hold a pen, creating marks on the paper, scribbling, drawing meaningful lines, using colours in lines among others.

Many children who develop normally explore linear trials involved in visual arts education by themselves within their normal process of development and implement them. More clearly, it can be said that most children who develop normally are able to observe people, houses, trees, flowers and similar objects and living creatures within their development process by observing their own environment and are able to reflect them on paper (implantation field). Therefore, children who develop normally do not need special teaching techniques to learn to draw during childhood. However, this is not the case for mentally retarded children who are among individuals with special needs. Mentally disabled children need special education to acquire skills in the area of visual arts just as they need special education to acquire the skills necessary in other areas (Kellogg and O'Dell, 1967; Salderay, 2008).

A child who develops normally can reflect a flower drawing on paper, even if schematically, with looking at a flower or an illustration of a flower. However, it does not seem very probable that a mentally retarded child can analyse the steps of drawing flowers and practise it on paper step by step by looking at a flower or from an illustration he has created. For that very reason, it would seem necessary that when teaching a mentally retarded child how to draw a flower, the steps must be sequenced from simple to more difficult, with each step being taught separately. This would include explicitly showing the onset points of lines, interval points and the direction of the lines.

Based on this hypothesis, the researcher wanted find out, "how the ability to draw a flower by a person with moderate mental retardation could be facilitated using structured visual clues" This issue has been explored and analysed from a variety of perspectives.

Method

This case study research is an observation using qualitative data. According to Karasar (1994: 156-158), an observation-based qualitative research comprises: participation in an observation process with a view to gather information about a certain person, place, event, object, situation and condition, to make observations intended for specific purposes.

The dependent variable of this research is the student's ability to perceive and draw the illustrations on the visually ordered flash cards that will be shown to her/him, on the paper, in the same order. The student himself/herself is the independent variable of the research.

In this case study research, the observation form (Table 1) method, which is a data collection technique in qualitative research, was used to record the outcome of the performance the of the mentally disabled seven-year-old child using visually sequenced illustration cards, in order to determine whether he had learnt to draw a flower.

Background of the Sample

The universe of the case study research is B.C who is a seven year old mildly mentally retarded child. Accordingly, the universe of the research has been implemented within the defined universe.

The Student Who Participated in the Case Study Research: B.C. is a male student with special needs, born on 02.01.2003. According to the education evaluation report prepared by the board of Antalya Counselling and Research Centre on 05.12.2008, B.C is defined as "Mildly Mentally Retarded". Taking this report as basis, B.C can be identified as an individual who has intellectual special needs. According to the said report prepared by the rehabilitation team (3 teachers for special education, 2 children's development teachers, 1 speech and language therapist, 1 psychologist and 1 physiotherapist) who have worked with B.C since 2007;

a) in terms of social communication skills: the child can adapt to the environment within the framework of the social rules his age requires, he gets excited in spontaneous changes and contracts and he has behavioural problems such as waving his right hand for a long period, but; he does not have any behavioural problems that would prevent him from learning and even though he cannot clearly communicate verbally, he tries to communicate and he can use his body language correctly, he obeys the rules in the class, he can adapt to new environments, he can queue in games,
b) in terms of cognitive skills: he is deficient in concepts of place/location, shape, form, colour, opposites (small-large, thin-thick, short-long, thin-fat... etc), numbers but; the student is able to hold the pencil and use it and with a systematic effort he may be able to draw meaningful lines as a preparation to writing, he can accomplish instructions that include two actions; he can imitate actions, he reacts to auditory and visual stimulus,
c) in terms of speech and language skills; he has receptive language (he understand what is being told) but he lacks expressive language and the ability to differentiate between homonyms, he can articulate some sounds (a, e, o, b .. etc -those that are labial and laryngeal-) but fails to articulate some others (s, ş, ç, ğ, r, z, v, j... etc -those that require breath and tongue movements-), he cannot combine sounds, he can accomplish two and three staged instructions, he can imitate words,
d) in terms of motor skills; he does not have any physical problems that may prevent him from acting,
e) daily life skills; he can use a fork and a spoon age appropriately, he can fill his glass with water from the bottle and drink it, he can clean the floor, the table, the chair .. etc with a wipe, he can spread jam, honey, chocolate spread etc on bread,
f) personal care skills; he can wash his hands and face age appropriately, he can dress and undress, he can put on and take off his valorise shoes, he can use the toilet, he can brush his teeth and he abides by the hygienic rules.

Developing the Data Collection Tool: Before starting the case study research, the researcher collected some information about the general performance of the student by interviewing the rehabilitation team that worked with the student (3 teachers for special education, 2 children's development teachers, 1 language and speech therapist, 1 psychologist and 1 physiotherapist) and the student's parents. In light of the information he gathered, the researcher discovered that the student experiences some difficulties in looking carefully at a sample shown (such as a photo or a picture), in reflecting what he sees on paper correctly; in drawing pictorially meaningful figures (drawing an object or a living creature schematically), in concentrating on what he does and in working in a focussed manner. Having gathered the information, a visual arts task (drawing a flower) was designed to serve the purpose of the study. The visual arts task was selected according to the student's preference. After the task had been selected, the researcher developed an observation form (Table 1) of 15 criteria to judge the performance of the child. Subsequently, the draft observation form was shown to the rehabilitation team (3 teachers for special education, 2 children's development teachers, 1 language and speech therapist, 1 psychologist and 1 physiotherapist) and three arts teachers for evaluation and was modified in line with their feedback. The revised observation form was sent to a specialist of Turkish Language and Literature for review of the terms used. In accordance with the expert views, it was decided that the observation form was well-designed and functional.

For the evaluation of the 15 questions included in the form, a grading scale consisting of two options was used. Accordingly, for each question, there were two options: 1) can do the action when shown the card (+), and 2) fails to do the action when shown the card (–). The researcher ticked the appropriate symbol on the observation form.

Collecting the Data

Prior to the researcher starting to teach the drawing task, he collected baseline data to ascertain the student's performance at the task without input. To do this, he observed the reactions of the student (his level of ability to draw flowers) three days in a row, by means of single opportunity technique and recorded data he obtained on the performance level form. The flower drawings which possessed schematic features and scribbles were then used determine the student's baseline performance level (Appx 1) using the observation form. The application of the observation form process lasted 10 weeks (from 01.12.2009 to 04.02.2010) and included 20 sessions of 15 minutes each. Within this process, visually sequenced and ranked drawing cards that reflected the questions in the observation form (Appx 2) were shown to the student in sequence and the performance of the student (his level of ability to know and do) was observed and put down in the form. Furthermore, the researcher took care to ensure that each session within study (within the observation form process) was carried out within the same external conditions (same venue, table, chair, time of day, pencil, paper, period etc). Under these conditions, the data obtained in 20 sessions were recorded on the observation form, and constituted the data of the research.

Findings and Comments

This section the question was analysed and findings and comments regarding the analysis are stated.

Table 1. The records of the Observation Form regarding Flower Drawing Using Visual Clues (Visually Staged and Ranked Drawing Cards)

Meanings of the symbols used: **+:** Can do the action when shown
-: Fails to do the action when shown

Questions		Session No:																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
		SYMBOLS USED IN THE SESSIONS																			
1	Can the student place an A4 page vertically on the table?	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
2	Can the student draw a circle with 3cm diameter in the middle of the paper?	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
3	Can the student put a dot on the upper end of the circle?	-	-	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
4	Can the student put a dot on the lower end of the circle?	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+
5	Can the student put a dot on the right hand side of the circle?	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
6	Can the student put a dot on the left hand side of the circle?	-	-	-	-	-	-	-	+	-	+	+	+	+	+	+	+	+	+	+	+
7	Can the student draw an oval line from the right hand side of the circle towards the upper end of the circle?	-	-	-	-	-	-	-	-	-	-	-	+	-	+	+	+	+	+	+	+
8	Can the student draw an oval line from the upper end of the circle towards the left hand side of the circle?	-	-	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+
9	Can the student draw an oval line from the left hand side of the circle towards the lower end of the circle?	-	-	+	+	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+
10	Can the student draw an oval line from the lower end of the circle towards the right hand side of the circle?	-	-	+	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+
11	Can the student draw a long downward line from the right hand side petal at the bottom of the circle?	-	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+
12	Can the student draw a long downward line from the left hand side petal at the bottom of the circle, which is parallel to the line on the right, with some space in between the two?	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
13	Can the student put a dot in the middle of the downward line on the right?	-	-	-	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
14	Can the student put another dot 1 cm below the other dot?	-	-	-	+	-	-	-	-	-	+	+	+	+	+	+	+	+	+	+	+
15	Can the student draw half an oval line that connects the two dots?	-	-	+	+	-	+	-	+	+	+	+	+	+	+	+	+	+	+	+	+

As can be seen in Table 1, the student can draw a flower when exposed to the visually staged and ranked drawing cards technique after the 13th session onwards. It can be seen that the student could accomplish only the 1st point in the 1st session. In the 2nd session, he could accomplish the 1st and the 2nd stages. Iin the 3rd session he could accomplish the 1st, 2nd, 9th, 10th and 15th stages. In the 4th session he could accomplish the 1st, 2nd , 3rd, 9th , 13th , 14th and 15th stages. In the 5th session he could accomplish the 1st , 2nd and 13th stages. In the 6th session he could accomplish the 1st , 2nd , 3rd , 12th , 13th and 15th stages. In the 7th session, he could accomplish the 1st, 2nd, 3rd, 12th and 13th stages. In the 8th session, he could accomplish the 1st , 2nd , 3rd , 4th , 6th , 12th , 13th and 15th stages. In the 9th session, he could accomplish the 1st , 2nd , 3rd , 4th , 11th , 12th, 13th and 15th stages. Iin the 10th 11th and 13th sessions he could accomplish the 1st , 2nd , 3rd , 4th , 5th , 6th , 11th , 12th , 13th , 14th and 15th stages. However, in the 14th, 15th, 16th , 17th , 18th , 19th and 20th sessions, he accomplished all 15 stages.

In addition to the student's positive performance that emerged after the use of the visually sequenced and ranked drawing cards technique, corresponding conclusions were reached upon the analysis of similar studies. Kalmanowitz and Kasabova (2004; 6, 7), which deals with the same subject, states that drawing studies that are realized in early childhood result in the child interacting with the work and help the child to give meaning to his environment and therefore help him participate in the adult world. Also, it is stated that, as the student individually closely interacts with the work in drawing studies, he gains experience and this helps them give meaning to symbolic expression and reflect them. However, Levorse (2008), states that mentally disabled children cannot learn to draw meaningful lines by way of this technique. Accordingly, he states that although mentally disabled children are eager to scribble and draw lines like children that present with normal development, they have difficulties in differentiating between linear symbols and writing and understanding them. He emphasizes that the student needs guidance to differentiate between linear structures and to give meaning to them. Arts Education Partnership (2002), USA national coalition, on the other hand mentions that guiding children properly during their first drawing attempts is a strategy that can be used. More clearly, this can be seen as utilising techniques that will help children see the things they are looking at more accurately, give meaning to them and reflect them on paper more accurately. Selfe (1983: 202) on the other hand, mentions that it is the responsibility of visual arts instructors (arts teachers) to intervene in children's drawing attempts.

Accordingly he emphasizes that the initial basic information to be given to children and the teaching techniques to be used should tailored to the children's needs. Therefore it can be said that the way in which the student perceives, attributes meanings to what he sees, and the way in which he applies what he attributes meanings to, is highly significant. Similarly, Kellogg and O'Dell (1967) mention that mentally disabled children need special teaching techniques to be able to draw linear expressions. It can be stated here that the special teaching technique to be used to teach the linear expression should be determined according to the needs of the child and his readiness. In light of all of the above, the positive performance that emerged at the end of the study where visually sequenced and ranked drawing cards were used to teach the student how to draw a flower correspond to other studies in the field. Moreover, it can also be said that the intense eagerness and motivation of the student towards the study had a positive effect on his performance. Furthermore, it can be said that the fact that the linear structures were concrete and were sequenced in order of difficult, had a positive effect on the student's ability to perceive and to reflect. It should also be mentioned that the fact that the student clearly saw that he could accomplish the task and succeed in the assignment using the technique played a role in his performance. The fact that the instructor was passive and the student was active during the study benefited the student's performance. Finally, it can be said that the fact that the study was novel to the student had a positive impact on his performance.

Conclusıon

This case-study research was carried out to identify functional teaching stages and methods for use with a person with moderate mental retardation. It presents a structured and sequenced teaching programme which has analysed the stages needed to produce a flower-drawing and has created a tested and approved practical example in which a person with moderate mental retardation was enabled to carry out a flower-drawing independently. To this end, B.C. a seven year old child with moderate mental retardation was used as an example for the case study research. Thus the chronological progress and performance of B.C. during the structured teaching programme was observed and evaluated as an example.

The study took place over ten weeks, comprising 20 sessions of 15 minutes each in total. An observation form, developed by the researcher, was used in each of the sessions to record the results. As shown on the observation form, the programmed used with B.C. was structured in sequential stages, ordered from simple to more difficult where each step was taught separately. The visual clues included an indication of the onset points of lines, reminder points at regular intervals and the direction of lines. At the end of the teaching programme used with B.C. it was noted that he had accomplished the task within the stages provided and succeeded in the outcome of drawing a flower using the method outlined in this study.

Consequently mildly mentally retarded B.C. acquired the ability to draw a flower independently after the 13th session using the visual clues provided.

Also, at the end of the case study research, suggestions based on the results of the study were stated regarding application and further studies.

Suggestions regarding application:

1. Visually staged and ranked drawing cards technique can be used to teach mentally disabled individuals how to draw human figures, plants and animals, objects and structures.
2. Visually staged and ranked drawing cards technique can be used to help individuals who have difficulties in perceiving what they see and linearly reflecting them, to overcome these problems.
3. Visually staged and ranked drawing cards technique can be used to help students who are learning how to read and write, to perceive linear symbols and imitate them and to improve their skill to generalize.

Suggestions regarding further studies:

1. A similar study can be carried out to cover students with attention deficit.
2. A similar study can be carried out to cover dyslexia cases which include reverse perception.
3. A similar study can be carried out in a way to cover various drawing structures (such as houses, trees, flowers ... etc) together.

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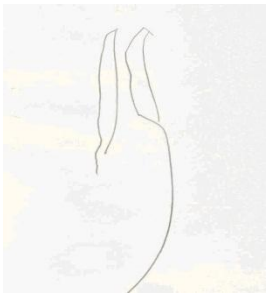
Appendices

Appendix 1

Flower drawings by B.Ç. which were used to evaluate his level of performance before the teaching technique was used.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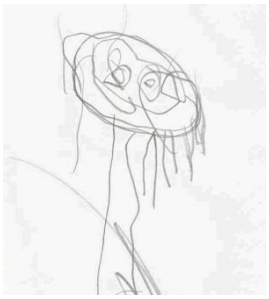
1.2.


1.3.

Appendix 2

Visually staged and ranked drawing cards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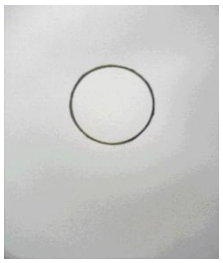
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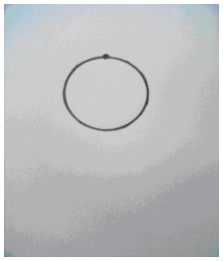
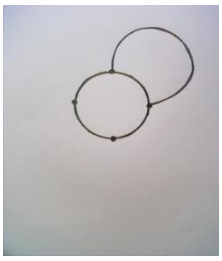

2.3.


2.4.


2.5.


2.6.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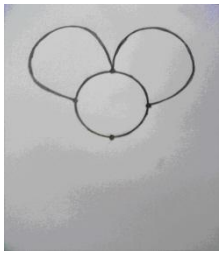
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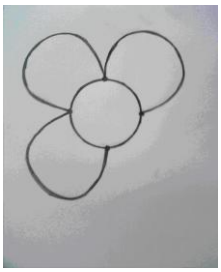
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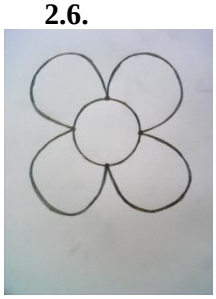
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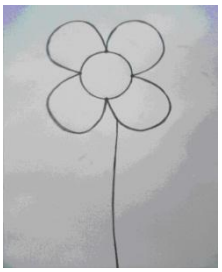
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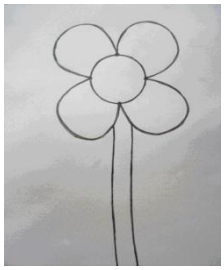
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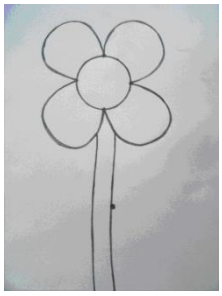
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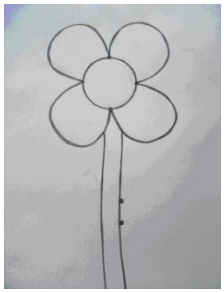
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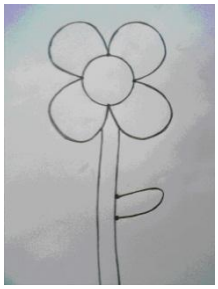
2.15.

Appendix 3

The flower drawing B.Ç. did at the 20th session