Proposed Program for Developing Some Concepts for Nursery School Children in Egypt Using Artistic Activities

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Abstract—The study presents a proposed program for nursery school children in Egypt. The program consists of a collection of artistic activities and aims to develop the language, mathematical, and artistic skills of preschool children. Furthermore, the researcher has presented a questionnaire to experts about the link between the target group and the content. Finally, the proposed program was applied to group of 30 children. In addition, the researcher has prepared another questionnaire for measuring the effect of the program. This questionnaire was used as a pre-test and post-test, and at the end of the study, a significant difference was determined in favour of the post-test results.

Keywords—Developing, concepts, nursery, children, artistic activities.

I. INTRODUCTION

EARLY childhood is one of the critical developmental periods in life in which health behaviours are developed [1], [2]. In this period, regular physical activity helps to limit unhealthy weight and aids in the child's development [3], [4]. Many physical activities have been developed specifically for different stages of childhood, namely for kindergarten from four to six years old, toddlers from one to three years old, and even for infants [5], [6].

Physical activity plays a pivotal role in the overall health and well-being of children. Among young children under the age of five years, regular physical activity has been linked to decreases in cardiovascular risk [7] as well as improvements in motor development [8], and psychosocial and cognitive factors [3]. According to recent studies, there are significant variances in the prevalence estimates of children's measured physical activity [9]-[11]. In fact, over the past decade, a great deal of research has focused on the physical activity and sedentary levels of preschoolers [8]-[10]. Interestingly, investigations into the physical activity and sedentary behaviour of toddlers are limited. In this study, the research used some activities to improve the language, mathematical, and artistic skills

II. METHOD

The program has been developed to be suitable for nursery children, and was presented to 30 preschool-aged children. The program took 24 hours, it was divided into twelve meetings; each one is two hours long.

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The program aims to improve the skills of nursery school children in Egypt. The researcher has designed a questionnaire for experts to measure the appropriateness of the proposed activities for children of this age. They agreed the proposed program of activities are suitable and can be used to develop the skills of preschool children. The program consists of twelve artistic activities, which are described in detail in Tables I-XII.

TABLE I
ACTIVITY 1: DRAWING SHAPES IN SAND

Activity 1: Drawing Shapes In Sand
Goal:
• Drawing some shapes in a tray of sand
Tools :
• Tray of wet sand
Age:
• Over two years
Areas of learning:
• Mathematical development
• Creative development
• Language, Literacy and Communication skills

Activity 1 (Table I), is a simple and fun way for children over the age of two to increase their familiarity with different shapes and their properties. In this activity, the children are provided with a tray of wet sand and encouraged to draw shapes in it.

As the children draw different shapes, the teacher is recommended to talk to the children about the shapes they are drawing and the properties of these shapes, the number of sides and corners, etc. that they have, for example.

TABLE II
ACTIVITY 2: MAKING TREES

Activity 2: Making Trees
Goal:
• Creative autumn activity
Tools :
• Leaves
• Paint
• Paint brushes
• Plain paper
Age:
• Over two years
Areas of learning:
• Knowledge and Understanding of the world
• Creative development

Activity 2 (Table II), is a creative activity that introduces the children to autumn and the seasonal changes that are affected. This activity is appropriate for children over two

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years of age. It includes making an autumn tree which may be used as part of a larger wall display. In this activity, the children go to the garden and gather fallen leaves. The leaves are then placed in the centre of table, and the children are given paint palettes with colours related to autumn, for example oranges, reds and browns. The children then choose leaves and paint them in their preferred colour. The painted leaves are placed paint-side down on a sheet of blank paper to dry. Once dry, the printed leaves are cut out to be used as part of a larger group picture.

On a larger sheet of paper, the teacher can draw the outline of a tree truck which the children can paint and then attach their dried painted leaves and leaf cut-outs to. To understand the seasons, some leaves should be attached at the bottom to represent the fallen leaves.

TABLE III
ACTIVITY 3: CREATING MY PET PICTURES

Activity 3: Creating My Pet Pictures
Goal:
• Drawing a picture
Tools :
• Plain paper
• Pens, pencils, crayons or paints
• or a choice of collage materials
• Image of the child's pet or favourite animal
Age:
• All ages.
Areas of learning:
• Creative development
• Language, Literacy and Communication skills

Activity 3 (Table III) can be conducted by children of most ages as it is a straightforward task. Furthermore, it can be presented as a part of a pet/animal theme. In this activity, children are given a piece of plain paper and they are allowed to select their favourite drawing and colouring tools. The children are asked to name their pet or favourite animal and to draw them using their chosen tools and colours. Once the drawings are complete, write the name of each child and the name of their pet or animal at the bottom. Finally, place the original image next to the final pictures on the wall for everyone to see. In addition, after completing the activity with the older children, teachers can form groups of younger children and allow the older children to show their pictures and talk about their pets.

TABLE IV
ACTIVITY 4: MAKE A HANDPRINT ELEPHANT

Activity 4: Make A Handprint Elephant
Goal:
• Creating a handprint for an elephant
Tools :
• Plain paper
• Grey paint
• Googly eyes
• Scissors
• Glue
Age:
• All ages
Areas of learning:
• Knowledge and understanding of the world
• Creative development

Activity 4 (Table IV), is a very simple activity that can be conducted by children of any age.

Paint the child's hand in the grey paint and press it onto the paper, with the thumb stretched out from the other fingers, to represent the four legs and the trunk of an elephant. Leave the handprint to dry before cutting it out. Older children can do the preparation themselves. Turn the handprint around so the fingers are pointing downwards, representing the elephants legs, and the thumb will be the trunk. Glue two googly eyes onto the palm of the hand near the thumb to complete the elephant.

TABLE V
ACTIVITY 5: PLASTIC CUTLERY PAINTING

Activity 5: Plastic Cutlery Painting
Goal:
• Creating colourful patterns
Tools :
• Paper
• Paints in a variety of colours
• Plastic cutlery
Age:
• Over two years
Areas of learning:
• Creative development
• Mathematical development
• Language, Literacy and Communication skills

Activity 5 (Table V) is a very simple activity for children over the age of two to experiment making colourful creative patterns.

The children are given several paints with a plastic fork, spoon, and knife in each colour. Each child then uses these tools to paint a pattern or a shape. While the children are doing the activity, the teacher can talk to them about the patterns or shapes they are making. The teacher should also encourage the children to use the tools in different ways to produce various effects. For example, the pattern produced by the serrated side of a knife is different from the flat edge.

TABLE VI
ACTIVITY 6: FORK PRINTING FLOWERS

Activity 6: Fork Printing Flowers
Goal:
• Create a card for mothers' day or spring collage
Tools :
• Coloured paints
• Plastic forks
• Paintbrushes
• Paper
Age:
• Over three years
Areas of learning:
• Knowledge and understanding of the world
• Personal and social development
• Mathematical development
• Physical development

Activity 6 (Table VI) is an interesting activity for children over three years of age. The flowers produced in this activity are easy to create and can be considered as a part of a Mother's day card or as part of a spring display.

Coloured paints are placed onto shallow paint pallets, so the children can dip the forks easily. Using the curved under side

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of the fork that has been dipped into the paint, the children then press it onto the paper to create flower petals; a paintbrush or marker can be used to the draw the flower stems and leaves. This activity can be presented in spring as drawing several flowers creates a colourful collage.

TABLE VII
ACTIVITY 7: MAKE YOUR OWN UNDER WATER SCENE

Activity 7: Make Your Own Under Water Scene
Goal:
• Creating a scene
Tools :
• Blue paper
• Images or photocopied blank colouring pages of fish
• Images or photocopied blank colouring pages of a coral reef
• Sticky tape
• Glue
• Coloured paints
• Large shallow clear water trays
Age:
• Over two years
Areas of learning:
• Creative development
• Personal and social development

Activity 7 (Table VII) is a simple activity and suitable for all ages. This activity teaches the underwater environment. To begin, the teacher cuts a sheet of blue paper to size, enough to cover the transparent water tray being used. If there is no blue paper, the teacher can paint some paper. Using coloured-in outlined pictures or images of fishes and coral reefs, glue them to the blue paper to create an underwater image. Depending on the age of the children, the teacher can also provide the materials for the participants to create their own fish to be used in the display. Older children can also be tasked with cutting out and gluing the pictures on themselves. After finishing all the pictures, the teacher fills the water trays and places them over the top of the completed paintings, so the images are visible to create an underwater scene. The children can then play with toys in the water. This activity can also be used to teach older children about fish and coral reef in more detail.

TABLE VIII
ACTIVITY 8: CREATING A COLOUR TABLE

Activity 8: Creating A Colour Table
Goals:
• Learning about colours
Tools :
• Materials in the chosen colour
• Name of the colour printed onto the paper
• Colour flash cards
Age:
• Over three years
Areas of learning:
• Mathematical development
• Language, literacy and communication skills

Activity 8 (Table VIII) is suitable for all children over the age of three years and can be used to learn the colours through a group display. Moreover, the teacher can change the display weekly to represent various colours. In this activity, the teacher uses colourful cards to teach the children the colours, for example, if the colour of the week is red, the teacher uses

red card and writes the word red on it and mounts it to the wall above the table. After that, the children are asked to place red objects on the table. The children search the room to find red objects that they can place on the table to create their display. This activity can be regularly presented at the beginning of the week. In addition, the teacher can incorporate healthy eating into the display, by including red vegetables or fruits.

TABLE IX
ACTIVITY 9: MESSY HAND PAINTING

Activity 9: Messy Hand Painting
Goal:
• Creating a drawing
Tools:
• Large pieces of blank paper
• Sticky tape
• Coloured paints
Age:
• All ages
Areas of learning:
• Creative development
• Personal and social development

Activity 9 (Table IX) is a messy activity that is suitable for children of all ages. The activity can be done in small groups or individually.

To begin, the teacher places a large piece of paper on the floor, and shallow trays of paint around the edge. Then, the children are asked to dip their hands in the paint and create their own pictures on the paper.

TABLE X
ACTIVITY 10: MESSY FEET PAINTING

Activity 10: Messy Feet Painting
Goals:
• Creating a painting using feet
Tools :
• Large pieces of blank paper
• Sticky tape
• Coloured paints
Age:
• All ages
Areas of learning:
• Creative development
• Personal and social development

Activity 10 (Table X) is similar to the previous activity however, here the children use their feet instead of their hands to create drawings.

TABLE XI
ACTIVITY 11: NUMBER SPONGE PAINTING

Activity 11: Number Sponge Painting
Goal:
• To provide information about numbers and shapes as (square, circle)
Tools :
• Coloured paints
• Painting trays
• Number-shaped sponges
• Blank paper
Age:
• All ages
Areas of learning:
• Mathematical development
• Creative development
• Language, literacy/numeracy and communication skills

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Activity 12 (Table XI) is another messy activity which can be done by children of all ages. Moreover, additional instruction can be given to older children to learn more about numbers and counting.

Using trays of coloured paint and number-shaped sponges, the children are asked to dip the sponges into the paint and press them onto their own paper.

III. RESULTS

The researcher has designed a questionnaire for measuring the skills of the children, and focuses on their mathematical, language, and artistic abilities. The researcher has applied the program to 30 children. In the current study, a pre-test, a post-test, and a quasi-experimental design without a control group were applied. Table XII and Fig. 1 show a comparison of the results before and after the program.

TABLE XII
THE RESULT OF APPLYING THE PROGRAM

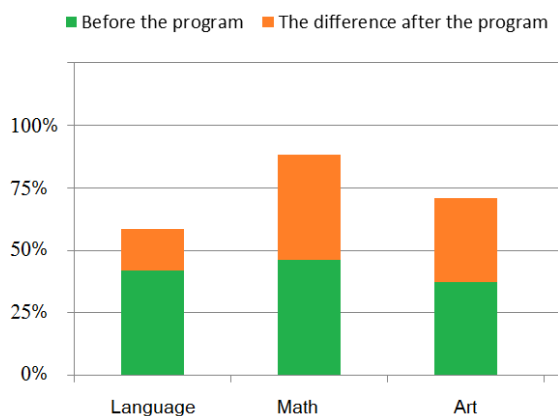|	Item	Before applying (%)	After applying (%)	Difference (%)
1	Language skill	42.32	58.46	16.14
2	Mathematical skill	46.15	88.45	42.30
3	Artistic skill	37.31	71.15	33.84

Fig. 1 The results of applying the program

Fig. 1 shows that the skills of the children have improved by various degrees. The improvement in the mathematical skills of the children is much higher than their language skills, because children at this age do not have the ability to memorize many words. In addition, a major disparity has been found between the children in terms of artistic skills, but on average, a remarkable improvement was shown overall.

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