

Using Assorted Fruits to Teach Cultural and Creative Art Concepts in Primary Schools in Nasarawa State

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Abstract: This study identified fruits that could be used to teach cultural and creative art concepts in the primary school. The area of the study was Nasarawa State. The research design was survey. Teachers in government and private primary schools formed the respondents. A sample of 200 teachers was randomly selected. A structured questionnaire was used for data collection. Reliability coefficient of 0.8 was obtained as the overall coefficient for the instrument. The findings of the study revealed that fruits could be used to teach concepts such as colour, shapes, texture, printing, taste, among others. Some recommendations were put forward based on the findings of the study.

Key words: Assorted fruits, cultural and creative arts, primary pupils, texture, taste, shapes, and colours.

I. INTRODUCTION

Primary school education is the education given in an educational institution to children aged 6-12 years before entering the secondary school (Federal Republic of Nigeria, 2014). The purpose of primary school education as stated by National Policy on Education (2014) among others shall be to provide the child with the basic skill in logical thinking, to introduce the child to the basic concept of spatial relationships and to prepare children for the secondary education. The primary school programme is usually done for six years with the aim of grooming the child for the next level of education as stated by NPE (2014). In other to make this aim come true, certain subjects are taught.

Subjects offered in primary schools in Nigeria include, English language, Mathematics, basic science and technology, Religion and National values, cultural and creative arts and prevocational studies. Cultural and creative arts is composed of many creative endeavours and disciplines. It's the expression of creativity, imagination and arrangement of concepts such as, texture, measurement, colours, shapes, printings, taste. At this state, the child can associate objects with colours, taste, shapes, texture with concrete things he sees, touches, eats, listens to (that is the child learns best when he involves the five senses in the process of learning). Teaching a child cultural and creative arts at this level calls for taking into consideration the behavioural characteristics exhibited at this stage, Simmel and Georg, (2009) stated that primary school age children show more interest, learn better when they are involved in the learning process especially when their five senses are involved. Varied activities and teaching aids help to increase their attention span. This is so because the school aged has

been found to have small attention span though very creative. Vernon, (2007) opined that teachers should change their activities within short periods to avoid the child becoming restless and bored.

In teaching cultural and creative arts, the teacher must develop or improve creative arts teaching materials in such a way that a child can see and touch different types of objects through playing with them in the learning process. At the primary school stage, the teacher is expected to develop instructional materials that will be utilized to teach the concepts of cultural and creative arts (printing, shapes, colours, texture and taste being some of the concepts taught in cultural and creative arts. Yanyang and Babuje(2008) stressed that young children need play-based opportunities to develop and deepen their conceptual understanding of every subject (creative arts inclusive). Viewing learning from the social constructivist perspective, learning is more likely to occur if adults or more competent peer mediate children's learning experiences. Fwangle, and Dang (2000) observed that primary school education should deepen and expand the conceptual knowledge that children at this level have already develop. Job (2001) stated that the role of the teacher is to build on this knowledge to other higher levels of understanding, hence this study on the use of fruits to teach cultural and creative arts concepts.

Fruit is defined as the seed bearing structure in flowering plants formed from the ovary after flowering (Wikipedia). George, Pamplona-Roger and Malaxelxebamia (2001) stated that fruits could be classified as, citrus fruits such as oranges, grape fruits, stone fruits, tropical and exotics such as bananas and mangoes, berries is also another classification with example as straw-berries, blue-berries, passion fruits among others. The authors further stressed that fruits are an excellent source of essential vitamins and minerals and are high in fiber. Fruits also provide a wide range of health boasting antioxidant. The authors further observed that fruits are best eaten raw to take advantage of their healthy and medicinal properties. This is because heat destroys a significant portion of their vitamins if cooking happens in a liquid medium, some minerals dissolve in the water. Saidu and Pam (2009) observed that since fruits are eatable, not harmful, and familiar to the pupils, they could be used to teach pupils cultural and creative arts in the primary school. Hence, this study involved the use of assorted fruits which could be for print making, identifying shapes,

colours, texture and taste to teach cultural and creative arts in the primary school.

At the primary school level, creative arts could be taught to pupils using assorted fruits such as, bananas, oranges, apples, mangoes, lemons, grape fruits and pear among others, to teach the concepts of printing, shapes, colours, texture and taste. Improvising or locally produced materials by teachers for effective lesson delivery has been accepted by most educationist. Yau'wane (2007) viewed that the improvising of instructional materials has been generally regarded as an important skill which every teacher in Nigeria must possess, if teaching is to be carried out effectively. Fwangle (2000) stressed the need for teachers especially at the elementary level of education to improvise instructional material from locally sourced materials that are familiar to the students for better learning of concepts. Cultural and creative art is a subject that encourages imagination, creativity, skill development and plays an important role in the national development especially in this technological era where skill development and self-reliance is emphasized. It is the recognition of this role that the study of cultural and creative arts is one of the important subjects taught in every level of education in Nigeria. Rena (2000) noted that skills and competence that will qualify students to gain entry into any tertiary institution and succeed in Architecture, Fine Arts and Industrial design and related careers are at the heart of cultural and creative arts. Barber, (1994) said that students who study cultural and creative arts related courses at the tertiary level who had no prior knowledge in creative arts find it difficult to cope. A lot of school teachers have used many conventional instructional materials such as pictures, textbooks, charts among others to teach texture, taste, colours, shapes and other related concepts. It has been observed that these materials could be improved upon for the children's better performance and solid foundation for future success in creative arts and related courses. This has informed this study which is an investigation into teaching primary school pupils cultural and creative arts concepts using assorted fruits.

Purpose of the Study

The general purpose of the study was to evolve various teacher and pupil activities that could be derived from the use of assorted fruits to teach primary school pupils selected concepts in cultural and creative arts in Nasarawa State. Specifically, the study determined teacher and pupil activities using assorted fruits to teach the following art concepts:

1. colours
2. printing
3. shapes
4. texture
5. taste

Research Question

The following question guided the study; in what ways could fruits be used to teach the following to pupils in primary schools in Nasarawa State:

1. Colours?
2. Printing?
3. Shapes?
4. Texture?
5. Taste?

II. METHODOLOGY

Research Design: the study adopted descriptive survey research design. Eze (2004) stated that descriptive survey research design is one in which a group of people is studied by collecting and analyzing data from only a few considered to be representative of the entire population using a questionnaire.

Area of the Study: the study was conducted in Nasarawa State. The State is located at the middle belt of Nigeria. Nasarawa State has educational zones.

Population for the Study: the population for the study 550 made up of 250 and 300 teachers from Government and private primary schools of the state respectively. Only teachers with minimum qualification of National Certificate in Education (NCE) and Bachelor of Education B.Ed. formed the population for the study. Male and female teachers also formed the population.

Sample for the Study: sampling was drawn through simple random sampling technique was adopted for selection of the teachers as follows: in the first stage the western senatorial zones selected from the three senatorial zones. This gave a total of five Local Government Areas. In the next stage, ten schools were randomly selected to include Government and Private primary schools. 62 teachers were randomly selected from the Government primary schools while 48 teachers from the Private primary schools giving a of 110 teachers being the sample for the study.

Instrument for Data Collection: the instrument for data collection was a structured questionnaire designed by the researchers and organized base on the research questions which carried a 5 point scale. The response modes were strongly agree (5), agree (4), slightly agree (3), disagree (2) and strongly disagree (1). Mean of 3.0 was accepted for deciding the level of acceptance. More data was obtained from the teacher's responses from the suggested activities that teachers and pupils could be involved in for effective teaching and learning of colours, printing, shapes, texture and taste using fruits for teaching primary school pupils cultural and creative arts concepts.

Colour;

- a) Grouping fruits that have primary colours
- b) Writing the name of fruits that have secondary colours and pasting the names on the fruits
- c) Sketching down and colouring fruits that are purple, brown and orange.
- d) Slice different coloured fruits and arrange them to give a rain-bow design

- e) Make fruit salad in a transparent bowl so that the different fruit colours could be seen
- f) Squeeze juice from different fruits and label each colour from each fruits.

Shapes- Fruits could be used to teach shapes in the following ways:

1. Cutting out different shapes from different fruits (square, round, rectangle etc).
2. Grouping similar shapes of fruits together and labeling the different shapes.
3. Joining different shapes of cutout fruits to produce other shapes.
4. Naming the different shapes of fruits.
5. Singing different rhymes with different shapes of fruits.

Texture; this is done by feeling the back of the provided raw and ripe fruits, grouping the fruits by their texture, drawing and painting fruits that have smooth texture, mentioning names and colours of the rough textured fruits.

Taste; this is done by:

- Slicing small pieces of fruits and tasting the fruits to find out the taste.
- Writing down the taste of each fruit on paper.
- Peeling, slicing, blending, sieving and mixing assorted fruit juice into a container to discover the mix taste.
- Comparing the taste of the outer and the inner part of each fruit and describe it verbally to the class in turns.
- Drawing and painting sweet/sour taste fruits in their books and label them.

Data Collection Technique: the questionnaire was administered by hand to 62 teachers of government primary schools and 48 of private primary school teachers in their individual classrooms. 100 percent return rate was recorded of the questionnaire.

Data Analysis: data obtained were analyzed using mean.

III. FINDINGS

TABLE 1; Mean and Standard Deviation of Responses on Teacher's and Pupil's Activities for using Fruits to Teach Colours

S/N	Teacher's Activities	Pupil's Activities	X	SD	Remark
1	Guide pupils to group fruits according to Primary colours.	Grouping fruits according to primary colours.	4.25	0.56	Agree
2	Allow pupils to write the names of fruits that have secondary colours and pasting the names on the fruits.	Writing names of fruits that have secondary colours and pasting the names on the fruits.	4.35	0.6	Agree

3	Pupils to sketch down and colour fruits that are purple, brown and orange.	Sketching down and colouring fruits that are purple, brown and orange.	4.17	0.67	Agree
4	Pupils to slice different coloured fruits and arrange rain-bow design. them to give a	Slicing different coloured fruits and arranging them to a rainbow design.	4.14	0.78	Agree
5	To make fruit salad in a transparent bowl so that the different fruit colours could be seen	Making fruit salad and examine the different colours of fruits.	3.82	0.64	Agree
6	To squeeze juice from different fruits and label the colours of each fruit juice.	Squeezing fruit juice and labeling the colours.	3.89	0.69	Agree

X= Mean SD= Standard Deviation

Table 1 above indicates clearly that all items could be used to teach colour as seen in their mean scores of 4.23, 4.35, 4.17, 4.14, 3.82 and 3.89. All of these mean scores are above the cutoff point thus; all were accepted to be used for teaching primary school pupils. Table I; Indicates that all the items in this section are rated high by the respondents with the mean score of 3.79, 3.86, 4.14, 4.11, 4.06 and 4.38. This shows that fruits could be used to teach colour concept in cultural and creative arts as accepted by the respondents.

Table 2: Mean and Standard Deviation of Responses on Teacher and Pupil Activities for using Assorted Fruits to Teach Printing.

S/N	Teacher's Activities	Pupil's Activities	X	SD	Remark
1	Children to print the texture of selected fruits on paper	the pupils pick out all the fruit with texture in a bowl	4.14	0.55	Agree
2	Children to feel the texture of printable texture with hands.	Feeling the printable with the hands	4.23	0.56	Agree
3	Children to slice fruits and print with poster colours on paper.	Slicing and printing with poster colours on paper	4.35	0.6	Agree
4	Children to print with poster colours on paper exploring the basic design principles.	Printing with poster colours on paper to explore the basic design principles.	4.38	0.6	Agree

X= Mean SD= Standard Deviation

Table 2 indicates that all the items fall within the acceptance mean range of 4.14, 4.23, 4.35 and 4.38. This was interpreted to mean that all the respondents (primary school teachers)

agreed on all the items in section one as ways fruits (assorted) could be used to teach printing concepts with fruits.

Table 3: Mean and Standard Deviation of Responses on Teachers and Pupils Activities for using Fruits to Teach Shapes

S/N	Teacher's Activities	Pupil's Activities	X	SD	Remark
1	Let pupils cutout different shapes from assorted fruits.	pupils cutout different shapes from different fruits.	3.79	0.68	Agree
2	Let pupils group similar shapes of fruits together and label the	pupils group similar shapes of fruits together shapes.	3.86	0.59	Agree
3	Pupils to join different shapes of cutout fruits to produce another shape or whole.	Pupils engage in joining different shapes of cutout fruits to produce shape or whole	4.14	0.78	Agree
4	Pupils to name the different shapes of fruits.	Naming of different types of fruits.	4.11	0.67	Agree
5.	Pupils to measure the size of the different shapes of fruits (circumference, radius and diameter).	Measuring the size of the different shapes of fruits.	4.06	0.06	Agree
6.	Pupils to sing rhymes of different shapes with fruits.	Singing rhymes of different shapes with fruits.	4.38	0.67	Agree

X= Mean SD= Standard Deviation

Table 3 indicate that all the items fall within acceptance mean range of 3.79, 3.86, 4.14, 4.11, 4.06 and 4.38 this was interpreted to mean that all the respondents agreed on all the items in this section as ways fruits could be used to tach shapes concepts.

Table 4: Mean and Standard deviation of Responses on Teachers and Pupils Activities for using Fruits Teach Texture

S/N Texture	Teacher's Activities	Pupil's Activities	X	SD	Remark
1	Pupils to feel the back of the provided raw and ripe fruits.	Feeling the back of the provided raw and ripe fruits.	4.35	0.6	Agree
2	To let pupils group the fruits by their texture.	Grouping fruits by their texture.	4.18	0.55	Agree
3	To let pupils draw fruits that have rough texture.	Drawing of fruits that have rough texture.	3.82	0.64	Agree
4	Pupils to mention names and colours of the rough textured fruits.	Mentioning names and colours of the rough textured fruits.	4.23	0.56	Agree

X= Mean SD= Standard Deviation

Table 4 shows all the items in the group are rated high by the respondents with the mean scores ranging from 4.35, 4.18, 3.82 and 4.23. This indicates that all the items could be used to teach texture concept because all of these means scores are above the cutoff point therefore, all were accepted to be used for teaching primary school pupils.

Table 5: Mean and Standard Deviation of Responses on Teachers and Pupils Activities for using Fruits to Teach Taste

S/N	Teacher's Activities	Pupil's Activities	X	SD	Remark
1	Pupils to slice small pieces of fruits and tasting them to discover their taste.	Slicing small pieces of fruits and tasting them to discover their taste.	3.82	0.64	Agree
2	Pupils to write down the taste of each fruit on paper.	Writing the taste of each fruit on paper.	4.14	0.78	Agree
3	Guides pupils to peel, slice, blend, sieve and mix assorted fruits juice into a container to find out the mix taste.	Peeling, slicing, blending, sieving and mixing assorted fruit juice to find out the mix taste.	3.86	0.59	Agree
4	Pupils to compare the taste of the outer and inner part of fruits.	Comparing the taste of the outer and inner part of each fruit.	4.06	0.65	Agree
5	Pupils to draw and paint sour and sweet taste fruits.	Drawing and painting sour and sweet taste fruits.	3.86	0.59	Agree

X= Mean SD= Standard Deviation

Table 5 shows all items in the group to be rated high by the respondents (primary school teachers) with the mean scores ranging from 3.82, 4.14, 3.86, 4.06 and 3.86. This indicates that the entire fruit items could be used to teach taste concept.

IV. DISCUSSION OF FINDINGS

This study revealed that fruits could be used to teach concepts of colours, printing, shapes texture, and taste. All the fruits suggested teaching cultural and creative arts were accepted by the respondents (primary school teachers). The items all are within the acceptance mean of 3.79 and 4.38. This means that all the assorted fruits are suitable for teaching the primary school pupils cultural and creative arts concepts. This is in agreement with Yau'wane (2007) who opined that the improvising of instructional materials has been generally regarded as an important skill which every school teacher in Nigeria must possess if teaching is to be carried out effectively at the elementary level of education to improvise instructional materials that are familiar to the students for better learning of concepts. The author observed that abstract operations by younger children are better explained and understood by the use of variety of instructional material.

In using fruits to teach colors, all the items have mean scores ranging from 3.82-4.35. The high scores could mean that the respondents (primary school teachers) are experienced teachers at this level of education, thus their responses were higher in the items. The items identified are mostly fruits the pupils have been eating, touching, seeing feeling and hearing of. This was stated by Fwangle (2000) that there is the need for teacher to improvise instructional materials from the local environment that are known to the pupils for better learning of concepts.

Teaching shapes using fruits was rated high with mean scores of 3.79-4.38 because fruits could be used as play based to develop the lesson materials. This is in line with the view of Bot et-al(2013) who pointed out that teachers must develop cultural and creative art teaching material in such a way that the child can see, touch taste, manipulate with his hands, observe the dimensions of different types of objects through playing with them.

Shapes are taught in cultural and creative arts lessons using fruits to teach shapes to the primary school children could introduce imagination, effective use of the five senses and creativity in the pupils.

The mean score of 3.79, 3.86, 4.14, 4.11, 4.06 and 4.38 were obtained. This was pointed out by Dashua(2001) who stated that young children should be guided to think for themselves, experiment and come up with the answers. The author stressed that this helps the child to be more creative using fruits to teach texture was rated high ranging from 3.82-4.35. This could be so due to the nature of the activities the pupils were involved in . This is in consonance with Fwangle(2003) that stressed the need for teachers to vary their activities and methods of teaching to fastrack learning and minimize boredom by pupil.

Teaching pupils in the primary school taste using fruits was all accepted by the respondents and the mean scores of 3.82,4.14 ,3.86, 4.06, and 3.86 giving the score range of 3.82-4.14. This could be due to the nature of activities by the pupils with instant result as they tasted the product. This is in line with Anyakoha and Anyanwu(2003) that teachers should assist pupils to have a good feeling towards learning situations and activities.

Using fruits to print on paper was rated high because these printing activities have been used to teach arts and craft. This agrees with Yan'ware(2007) who opined that the different needs and interests of pupils as well as their individual differences have to be taken into consideration when making appropriate choice of teaching materials .the use of real objects that encourage perception of colours, size, texture in teaching has been stressed by (Igbo,2006).

V. CONCLUSION

Fruits could be made use of for teaching primary school pupils concepts such as colours, printing, shapes, texture and taste. Primary school pupils are familiar with different fruits

because they partake in eating, buying and seeing the different fruit trees .The study discovered that a teacher could guide the pupils through activities for better learning and retention of these concepts and motivate to be creative through the use of the assorted fruits since the pupils are familiar with them. These concepts could be used for teaching, cultural and creative arts, English and Mathematics at this level, since the subjects are compulsory at this level. The children therefore could be given a sound base since they will later build on them even in other complex subjects and levels of education like foods and nutrition, industrial design, physics among others.

VI. RECOMMENDATIONS

The following recommendations were made;

- 1) Fruits especially familiar ones to primary school children should be used to teach concepts such as colours, printing, shapes, texture and taste.
- 2) Children should be involved in the learning activities to encourage creativity and retention of knowledge for life.
- 3) Teachers at this level of education should be encouraged to attend seminars and workshops on the development and use of assorted learning materials to create interest, creativity and active participation by the pupils in the lesson.
- 4) Children –centered base methods of teaching should be emphasized.

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