

COLOUR AS INSTRUCTIONAL STRATEGY FOR DEVELOPING LANGUAGE SKILLS FOR FUNCTIONAL LITERACY AMONG CHILDREN

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Abstract

This study examines the wonders of colour as an active instructional strategy for developing language skills for functional literacy among primary school children in Owerri Urban. The study seeks to proffer answer to the question, does colour impact the learners performance in literacy skills in the study area? The design for the study was quasi-experimental research. The design aimed to enable the researchers utilize different learning strategies with different colours to teach the children, test their level of comprehension and performance in terms of identification, spelling, reading, writing and recalling of words. The population for the study consists 1,710 basic 1-3 pupils, the sample size of the study was 70 pupils. Three major objectives and three null hypotheses were formulated to guide the study. The theoretical framework guiding the study is Dewey 1913 theory of "Learning by doing" which is anchored on the learners' interest. The Analysis of Covariance (ANCOVA) was adopted to analyse the hypotheses. The finding revealed that children's ability to identify words is affected by the colours with which the words are printed. The children's ability to spell, read, draw, colour objects and write their words is affected by colours with which the words are printed. Also, the children's ability to recall words is affected by colour. Based on the results, some recommendations were made, among which are that old and new teachers and trainee-teachers should explore the magical effects of colours and their instructional relevance. Efforts should be geared towards utilizing the advantages of colours in planning and delivering of the instruction.

Keywords

Colour,
Instructional
strategy,
Language skills,
Functional literacy

Introduction

Language skills are communication skills that help a language user to communicate ideas with clarity and precision, while literacy skills are all the skills needed for reading and writing example, awareness of sounds, awareness of prints and the relationship between letters and sounds.

The wonders of colour as effective instructional strategy seem to

be under-utilized especially among early readers. Within the academic world, theories of literacy have emerged from those focused on changes in individuals to a more complex perspective comprising the broader social milieu that enhances literacy activities. The concept of literacy has truly expanded from looking at language as a simple process of acquiring initial cognitive skills to using these skills in ways that

contribute to social awareness of individuals and groups as a basis for social relevance.

Therefore, functional literacy focuses on language utilisation, for the learners' practical needs and environment. People are regarded as been functionally literate when they have acquired the essential knowledge and skills which enable them to engage in all those activities in which language is required for effective communication in the four language skills (Listening, speaking, reading and writing). Listening and reading are receptive skills while speaking and writing are productive skills. This makes it possible for them to continue using these skills for self-reliance and community development (UNESCO, 2013).

Literacy skills can be used interchangeably with language skills in this context. Functional literacy skills, therefore, emanate from the ability of a language user to listen effectively or attentively before speaking so as to benefit from a given instruction, then read and write. However, it is surprising that many people who can read and write lack the corresponding ability to listen attentively and speak effectively. Obviously, this attitude undermines the campaign for functional literacy. Precisely, functionally literate individuals meet the demands of language usage expected of them by their society. With reference to the Scripture (1kings 3:16-27), King Solomon was counted as a wise king because he listened attentively to the two harlots whose children died before giving the judgment. That is to say, "To be a good Judge you must be a good listener".

Recall that the major objectives of basic education are to train and teach the pupils to read, write and to acquire elementary work skills, societal norms and values in preparation for adulthood

and membership of the larger society. This transition is determined by the learner's academic performance (FRN, 2013).

Muodumogu & Terwase (2016) describe academic achievement as the scholastic standing of a student at a given moment. This scholastic standing could be explained in-terms of the grades obtained in a course or group of subjects. It is a measure of output and the main input in teaching and learning situations are expressed in observable outcomes such as changes in knowledge, skills and attitudes of individuals borne out of their learning experiences within the context of learning. Egbe (2012), supported this argument and reported that academic achievement is the level of attainment of an individual in a text or examination. That is, how a person is able to demonstrate his/her ultimate ability in a given test or examination. Other parameters such as initial skill development, regular attendance to class, improved behaviour and personal competence for learning are indicators for learners' performance.

In the classroom setting, it takes a competent teacher who is functionally literate to adopt certain instructional strategies to achieve effective communication and the lesson objectives. Instructional strategies in this context refer to all the various means a teacher employs to achieve the performance objectives of a given lesson. These include:

- A well-planned lesson with variety of learning experiences.
- Good language of communication
- Appropriate assessment technique/feedback

Colour is the property visible in an object which is capable of producing different sensations on the eye/other sense organs as a result of the way it

reflects meaning. Colours serve many purposes: for decoration and attraction of attention (Onyebuchi, Kanu and Orji, 2012) assert that colour can be assumed to be the most important visual experience to human being capable of functioning as a powerful channel of information to the human cognitive system and can play a significant role in memory enhancement. To this effect, Okoro, Akueshi and Okoroafor (2014), highlighting the instructional relevance of jolly phonics for early readers, outlined five steps under instructional procedure encapsulating the usefulness of colour in planning lessons for early readers.

Therefore, observe the following steps as a language teacher who wishes to teach pronunciation skill (sounds of English).

Step I: Introduce the lesson and tell the story associated with the particular sound you want to teach, demonstrate the action and drill the children to repeat after you.

Step II: Display the well-designed, colourful flash cards for the letter sound, objects and words associated with the pictures.

Step III: Ask the learners to identify the colours, sounds, mention some objects that have the sound, picture of some words that have the sound too.

Step IV: Give them their workbooks for drawing, colouring and writing as the case maybe.

Step V: The teacher gives take home assignments based on the lesson to produce flash cards using appropriate colours to associate objects with letter sounds. In a lesson like this, you cannot imagine the mastery of the receptive and productive skills in relation to the magical effects of colours in

facilitating the achievement of instructional objectives.

Sequel to these expositions, the professional language teachers know how best to put up great efforts to enhance the aesthetics of their learning environment with many colours, art works, pictures and colourful write-ups.

This is believed to have a wonderful effect on the learners' psychological reasoning hence some colours act as psychological pacifiers. Since the environment educates, man being a sensory creature, reacts to stimuli of his environment. That is to say, in order to maximize learning, there must be a symbiotic relationship between the learning environment, instructional strategy and the learners' interest.

Colour is a powerful force of communication. It affects human perception, giving different impressions of objects. It affects human emotion. Certain colours are used in business and increase brand recognition by up to 80% . (Uwazurike, Them-Chijioke &Eziaghighala, 2021)

In corroborating the above stance, Ogumuonyela (2011) reported positive results in his study of the effects of the use of colour over a period of twelve (12) months on reading skills and perception of reading ability. In the same vein, Okebukola (2009) gave a similar finding on the use of colour in reading. Based on the above discourse, the researchers seek to examine the impact of colour on functional literacy skills and performance of learners in selected primary schools in Owerri Urban, Imo state.

Theoretical Framework

This study is built on the proposition of learning theory called "learning by doing" anchored on interest by John Dewey 1913. Dewey observes that interest plays an important role in

learning, No matter how good or effective a teacher is, that can neither replace nor surpass \ the personal engagement derivable from interest which is intrinsic in a learner. He concludes that interest mediates the relationship between teacher-effectiveness and learners' differences and what they are interested in, they will automatically be motivated to engage in activities that appeal to their senses. Dewey further explicates that interest in doing something meaningful cannot be superimposed externally, rather ought to be fostered in a teaching and learning environment that is learner-friendly with a variety of learning materials or instructional strategies that coincide with their choices and interests.

This learning theory by Dewey is germane to this study because in teaching the rudimentary skill of speaking, the learners' interest in paying attention to what the instructor says is paramount. Suppose the lesson is fun and an opportunity for practice is made available based on what they see. In that case, the learners will feel integrated, and participate actively by showing interest and the tendency to construct knowledge and retain information will abound. Therefore, teachers should act as guide to learners when teaching children the language skills by using various strategies that appeal to their sense of humour.

Statement of the Research Problem

The early development of literacy skills prepares the children/learners to be useful both to themselves and their society. Therefore, deficits in the process of language development of children may adversely impact their reading abilities. So, the possession of a reading disability in the future can be traceable to poor development of basic language skills. Acquiring functional literacy skills will prepare young learners for effective use of the language in the future. On the other

hand, lack of proper development of effective listening before speaking, reading and writing skills account for the poor performance of learners in the subjects taught in the school. One of the primary education objectives is the inculcation of permanent literacy and numeracy skills.

Many schools in the state were not provided with necessary opportunities and experiences emanating from the use of apt instructional strategies/materials through workshops / seminars' participation in reading activities. This practice in the classroom these days seems to be a paradigm shift from the principles of child-centered learning hence, the teaching and learning of reading and writing skills in most schools especially public schools has remained orthodox. Regrettably, many people who can read and write, lack a corresponding ability to listen attentively before speaking. Consequently, this study tends to answer the question: Does colour impact the learners' performance in literacy skills in the selected primary schools in Owerri Urban Imo state?

Objectives of the Study

The major concern of this study is to examine the relationship between colours and performance in literacy skills of early learners' in Owerri Urban, Imo State. Specifically, the study sets to

1. Determine the impact of colours on early learners' ability to identify letter sounds in words.
2. Determine the impact of colours on early learners' ability to spell, read, draw and colour objects.
3. Examine the impacts of colours on the learners' ability to recall letter sounds and names of objects.

Null Hypotheses

The following null hypotheses were tested at 0.5 level of significance:

- i. There is no significant effect of colours on children's ability to identify letter sounds in words.
- ii. There is no significant effect of colours on the ability of children to spell, read, draw and colour objects.
- iii. There is no significant effect of colours on children's ability to recall names of objects in the selected primary schools in the study area.

Method

Research Design

The design for the study was quasi-experimental. The aim and choice of this design was to enable the researchers utilize different learning strategies with different colours to teach the children, test their level of comprehension and performance in terms of identification of sounds, objects and words associated with them.

Population of the study

The population consist 1710 basic one-to-three learners in the 8 selected private Nursery/Primary Schools in Owerri Urban, Imo State.

Sample and Sampling Technique

Using a multi-stage sampling method, 70 basic three learners were sampled for the study.

Instruments for Data Collection

The researchers designed the instrument for data collection tagged "Wonders of Colour and Performance in Functional Literacy Skills Test (WCPFLST)". The items in the instrument were within the ability of the learners to identify, spell, read, write and recall words taught using different colours for each question, every learner was scored using bi-polar scale based on options such as correct vs wrong and weighted as I and O respectively.

Validation of the Instrument

The WCPFLST instrument was subjected to face and content validation. This was done by presenting it to two experts in Measurement and Evaluation, Department of Educational Psychology, School of General Education, Alvan Ikoku Federal College of Education, Owerri and one Basic three teacher. The validators were required to assess the appropriateness of the instrument and its relevance to the objectives of the study. Their observations and comments were effected to modify the instrument for the study.

Reliability of the Instrument

To ensure the reliability of the test instrument (WCPFLST), copies of the instrument were distributed to 20 learners in some schools not part of the schools under study.

The data collected were analysed using the Cronbach's alpha co-efficient. A coefficient of 0.81 was obtained, thus, the instrument was confirmed reliable.

Administration of the instrument

The researchers obtained permission from the head-teachers in the sampled schools. The selected learners in each school were assembled in one classroom for teaching of three-letter words printed using various colours, specifically: red, blue, yellow, black by the teacher who served as research assistant. The words were boldly written using cardboard papers.

Tests were administered on the learners after a week. The copies of the test instrument for data collection (WCPFLST) were administered to the learners by the researchers with the help of the research assistants.

Method of Data Analysis

The data obtained from (WCPFLST) were analyzed using analysis of variance (ANOVA) at 0.05

level of significance to test the null hypotheses.

Results and Discussion of Findings

Hypothesis one: There is no significant impact of colours on learners’ ability to identify letter sounds associated with some words.

Table 1: Analysis of variance on the impact of colours on learners’ ability to identify letter sounds in printed words

Sources of Variation	SS	DF	MS	F	P-Value	Fcrit
Between Groups	77.57	3	25.86	10.87	0.000	2.66
Within Groups	371.13	156	2.38			
Total	448.70	159				

The result in Table 1 reveals that the calculated F ration of 10.87 is greater than the critical F- value of 2.66 at 0.05 alpha level significance. This result rejected the null hypothesis of no significant impact of colours on learners’ ability to identify letter sounds in words. This means that learners’ ability to identify words is affected by colours with which the words are printed. This result is in agreement with the findings of Uwazurike et al (2012); who discovered that colour increased the recognition of natural scenes by participants who viewed a sequence of images of natural scenes on a computer monitor. It also corroborates Onyebuchi et al (2012)

who found that colours as a component of visual art affect learners’ performance in a web-based learning management system. It is evident from the findings that when learners’ engage in result-oriented tasks for example identifying objects or words, may bring an impact due to variation in colours used. Therefore, learners should be able to identify the letter sounds, objects, read and spell words printed with a given colour that catches their fancy better than others.

Hypothesis Two: There is no significant impact of colours on learners’ ability to spell, read, draw, colour and write names of objects.

Table 2: Analysis of Variance on the impact of colours on learners’ ability to spell, read, draw and colour objects

Sources of Variation	SS	DF	MS	F	P-	F crit
Between Groups	108.75	3	36.25	12.05	0.000	2.66
Within Groups	469.25	156	3.01			
Total	578	159				

The result in Table 2 shows that the calculated F- ration of 12.05 is greater than the critical F-value of 2.66 at alpha level of significance. With this result, the null hypothesis of no significant effect of colours on learners’ ability to spell, read,

draw, colour or write names of objects was rejected. This shows that learners’ ability to spell, read and write names of objects is affected by colours with which those words are printed. This result agrees with the findings of Okoro,

Akueshi and Okoroafor (2014) who state that colours can contribute to the improvement of the learning process and performance.

Also, in line with Okebukola (2009), with respect to writing, it is evident that colour improves the creative ability of an individual such as in painting and colouring.

Moreover, printing of varying colours has also shown increased

creative ability in individuals or learners to reproduce the images or words. Hence, writing representing the viewed images/words can be improved, especially when the targeted words are printed using stimulating colours.

Hypothesis Three:

There is no significant impact of colours on learners’ ability to recall letter sounds and names of objects.

Table 3: Analysis of variance on the impact of colours on learners’ ability to recall letter sounds and names of objects.

Sources of variation	SS	DF	MS	F	P-Value	F crit
Between Groups	106.03	3	35.34	11.91	0.000	2.66
Within Groups	462.75	156	2.97			
Total	568.78	159				

The result in Table 3 shows that the calculated F-ration of 11.91 is greater than the critical F-value shows that the calculated F-ration of 11.91 is greater than the critical F-value of 2.66 at 0.5 alpha level of significance.

Therefore, the null hypothesis of no significant impact of colours on learners’ ability to recall letter sounds in words associated with objects was rejected. This means that the learners’ ability to recall words is affected by colours in which those words are printed. This result is in line with the findings of Ogunwonyela (2011), who discovered that children’s memory and recall performances were higher with the use of yellow background when compared with other colours.

Ogunwonyela (2011) also found that the colours of a paper used for learning affect the children’s performances. This result also agrees with the findings of Okebukola (2009) who investigated the effectiveness of colour on students’ cognitive achievement and found that students

who were exposed to colour vision of the photographic prints performed better than their black and white counterparts. From the ongoing, it is obvious that using colours as instructional aid can arouse the learners’ senses and enhance recalling of learning experiences.

Recommendations

The following recommendations are made based on the findings thus:

1. Curriculum designers and other stakeholders should emphasize that textbook publishers MUST explore complimentary advantages of colours when preparing text illustrations to achieve instructional objectives.
2. Teachers should be able to attend seminars, conferences and workshops, where most of these strategies are show-cased.
3. Teachers should also be mindful of colours and how they are used when selecting literary texts.
4. The resourceful teacher should endeavour to use photo-series as

they aid retention and the ability to recall what is learnt.

5. The instructional benefits of colour should be advocated for and utilized by teachers to achieve effective lesson delivery.

Conclusion

In this study, the instructional relevance of colour for developing functional literacy skills has been explored. From the standpoint of Dewey's theory of learning by doing which capitalizes on the interest of the learner or learners, we discover that no matter the teacher's effectiveness and how good a lesson plan may seem to be, the interest of a learner in performing a task in a teaching and learning situation remains cardinal. Therefore, the utilitarian value of "colour" as an instructional strategy for developing initial language skills has been authenticated by findings of this study.

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