

teacher at whatever level will deliberately avoid rigidity in individual student's learning pattern and learning rate by carefully sourcing and introducing instructional media and materials with in-built learning flexibilities. This gives room for individual differences amongst learners as they are provided with diverse opportunities to extract and utilize information in a number of perceptual modalities (i.e. seeing, hearing, touching, tasting and smelling). (Akinpelu, 1999, 2004)

The primary school age (5-11 years) has been noted in developmental psychology to be an age of plasticity, a malleable stage when each learner can be easily manipulated, influenced and sharpened to becoming whatever the teacher desires. It is the foundational level that determines the quality and extent of academic and developmental edifice that the society may aspire to erect through its citizenry, since education is the bedrock of societal development.

Research has also shown emphatically that at this stage (ages 5-11 years) between 50 and 90 percent of the child's intelligence has developed. This accounts for why he tends to ask questions, wants to use his hands to mould and construct, loves to play with items and displays interest in knowing. To deny him of all these activities is to refuse to sharpen the child's intelligence as such activities stand as challenges to his intellectual development and growth. What magic can then be played at the secondary school level if this fundamental stage is ruined?

Available Materials and Media for Instruction at the Primary School Level

There is hardly any topic in the school curriculum (primary or secondary) that cannot enjoy the usage of particular instructional materials and media depending on the level of pedagogical skill possessed by the teacher. Going by the major sense organs, three-type classification can be attempted:

(1.) *Visual Materials:* About 83 percent of what goes into human memory comes through the sense of sight. It is also evident that children today live in an information environment that is highly saturated with visual images. Instructional materials must also compete for attention in this rich visual environment. Instructional resources from traditional textbooks to the latest media technologies contain a wealth of pictorial representations that are capable of enhancing knowledge acquisition. When visuals are specially prepared and professionally utilized for instruction, learning rate cannot remain the same. Such materials include charts, posters, cut-outs from news papers, magazines, handbills etc. learner's visual sensitivity can be enhanced through such materials. It can also be in forms of projected visuals as in slides (power point presentation) transparencies, filmstrips and compact discs. Such materials become highly useful when descriptive facts and concepts are to be presented especially where real objects appear difficult or even impossible at teaching situations. Learning in such situations can be maximized through visual illustrations. In addition, children are better equipped when exposed early in life to the world of visuals. There are today, specific computer presentation softwares that act as conversation starters for children. Such materials help to engage young children in building oral language skills and learn the meaning of unfamiliar words through visuals. In all, teachers must develop children's capacity to understand and properly interpret technical visuals. Primary school setting stands as the most appropriate stage to introduce children to such needed life-long developmental tools. This is visual literacy.

(2.) *Audio Materials:* About 11 percent of what people learn comes through the sense of

- (3) **Audio-visual Materials:** we look forward to a time when public school teachers will confidently use for instructional purposes, materials and media that could appeal to both the senses of sight and hearing at the same time. Such include: television, computer, video tapes, films, resource persons, tape-text synchronized presentations, tape-slide synchronized presentations to mention a few.

For skill teaching in almost every subject, there are ready-made films, instructional video tapes, instructional Video compact discs, instructional audio tapes, slides and overhead projector transparencies. Almost every radio and television station today runs one educational programme or the other. A resourceful teacher will not only identify them out but also effectively utilize them either directly for teaching or for enrichment purposes. The principle of individual learner's media preference should also be considered in media utilization for teaching or learning processes since learning gain will be higher through a learner's preferred medium. This necessitates the multimedia approach to teaching and learning apart from the use of a balanced mixture of instructional methods, strategies and approaches (Akinade 1999). This equally explains why meaningful integration of digital technologies into the curriculum implementation process even at primary school level becomes very paramount. (Aduwa & Iyamu, 2004).

Resource Persons, Resource Places and Resource Events in Effective Teaching

Teaching in its modern sense has shifted its focus from being teacher- centred, teacher-managed and teacher-controlled. The learner has become the pivot upon which effective classroom activities hinge. In essence, teaching has become a group enterprise. Professionals whose fields of endeavour are found worthwhile on particular topics are brought to the class to provide first hand information on their areas of specialisation. Such people could be medical doctors, lawyers, artisans, traditional hunters e.t.c. They all stand as resource persons in whose involvement in the teaching-learning process has the capacity to initiate knowledge hike.

Every society has a number of places where first hand information could be collected on particular topics or subjects in the school curriculum. Such places include traditional markets, Post Office, banks, churches and mosques, industries, factories, botanical or zoological gardens, motor parks etc. these are resource places where knowledge acquisition can be highly enhanced. Planned visits to such places serve both enrichment and initiative functions in teaching.

We also have events of instructional worth in every society, which learners can attend and gain better knowledge than when they are taught about such events in class. Take for instance, traditional *Egungun* festival, football match, sport competitions, real court sessions, electoral campaigns and actual election situations. These are academically rewarding resource events.

On the whole, a teaching-learning situation without the use of appropriate instructional materials and media is a mockery of the teaching-learning process as it is not only arid but also intellectually barren, and shows the teacher's level of professional competence. It is an index of the level of training and experience any teacher can boast of.

Conclusion

At every level of education, Educational Technology is perceived as a vehicle for curriculum enhancement. Studies (including McDaniel, Melnerney & Armstrong, 1993; Aduwa & Iyamu, 2004) have indicated that Educational Technology has the potential for enhancing student learning the level notwithstanding.

Today, it is evident that there is more to learn and to know than ever before due to increase in scientific discoveries. To stress the fact of knowledge explosion is to say the least. The changing nature of the learner today is equally posing unique challenges not only to curriculum development but also to methods of implementation at all levels.

The necessity of instructional materials and media in effective display of pedagogical skill at different stages of lesson preparation and presentation at primary school level especially, cannot be over-emphasized. The inculcation and introduction of such professional skill by every teacher should then be desirable considering the sensitivity and the crucial nature of the developmental stage of a typical primary school aged child.

In addition, the level of efficiency of the teaching force can only be heightened through adequate exposure to modern teaching-learning methods, techniques and strategies together with the gamut of resources (human, material and machine) that make them work. This calls for time-to-time capacity building exercises for primary school teachers, in addition to effective budgetary allocation to education. This is however based on political will of Government at all levels.

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Introduction

The teaching-learning enterprise has always been a dynamic process with a singular aim of ensuring individual learner's knowledge and skill acquisition together with the development of the right kind of attitude towards self, others, event and the society at large. This is succinctly summarized in the concept "behavioural change". Today, protagonists of modern teaching-learning technology have always shunned the static and pedantic teacher-centred methods that give little or no room for learning flexibilities. Such methods, no doubt, negate the principle of equity, which is becoming a paramount concept in education as it emphasizes fair and just treatment of individual learner in terms of needs, interest, motivation and aspiration. This is where instructional material and media become very paramount.

Research has shown that learning stands to be a function of trust and faith between the learner and the teacher. Notable in research outcomes is the observation that the quality and competence of practising teachers remains a major yardstick to measure the level of success or failure of the entire system. It is also a basic fact that human beings have, over the years, developed a reasonable level of trust and faith in media (whatever form) as reliable tools for entertainment, information dissemination and instructional delivery. Since every human being derives pleasure and satisfaction from media, learning becomes easier. After all, whatever pleases, teaches very effectively. Akinpelu, Adewoyin and Otunla (1999) observed that the use of instructional media at whatever level is a major step towards democratising learning principles since learning happens to be a personal phenomenon which cannot be carried out for another person. In line with current trends in instructional delivery mechanisms, particularly in advanced economies of the world, Adeyanju et al (2007) observe that educators at all levels, in developing economies await the promise of technological realities that would guide them to higher self improvement through improved educational system.

Major classroom activities, are always found to have the following purposes:

- 1.) To teach specific skills (psychomotor domain)
- 2.) To present facts (cognitive domain)
- 3.) To organise knowledge into concepts (cognitive domain)
- 4.) To stimulate imagination (affective domain)
- 5.) To develop attitudes or change existing ones (affective domain)

The teacher's level of efficiency and effectiveness in carrying out the above stated activities are usually measured in terms of student's learning outcomes. In essence, when learners have not learnt, a teacher cannot claim to have taught, though there are a number of intrinsic factors that are capable of influencing learners' learning capacity. A resourceful