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**STRATEGIES FOR SELECTING INSTRUCTIONAL MEDIA IN PRIMARY AND POST PRIMARY
SCHOOL IN RIVERS STATE**

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ABSTRACT

Psychologists working in the field of education study how people learn and retain knowledge. They apply psychological science to improve the learning process and promote educational success for all students. This study examines the strategies for selecting instructional media in primary and post primary school in Rivers State. The study concludes that the use and application of hardware and software technologies may prove quite beneficial not only in terms of providing a substitute for the direct real experiences, but also as a better means and media for the effective teaching and learning. The study recommends the utilization of hardware and software technologies, material and equipment like radio, television, tape recorder, films, models, charts, diagrams, maps, slides and transparencies for the organization and execution of the tasks and activities related to education. In addition to this, the use of software technology in the form of dramatic participation, demonstration, excursion or field trips, exhibition, visual and verbal symbols are also recommended.

Keywords: Instructional Media, Effective Teaching, Primary and Post-Primary, Schools, Rivers State.

Introduction

'Psychology is generally defined as the science of behaviour. Through one of its applied aspects known as educational psychology, it helps the teacher as well as learners in shaping the behaviour of the latter in accordance with the aims and objectives of education. Educational psychology, being a science of education, thus helps both the teachers and learners to bring essential modifications in their teacher behaviour or learner behaviour for the effective realization of the teaching-learning objectives. It suggests and paves the way for the application of hardware and software technologies for softening the process of teaching-learning much to the benefit of both teachers and learners. For example, it may provide certain principles, maxims and theories of teaching and learning or may put forward the generalizations like "experience is the great teacher" or "senses are the gateway to knowledge". Such path-showing statements and generalizations supported with the sound psychological principles and theories of teaching-learning may in fact be credited to provide a strong psychological base for the use and application of hardware and software technologies in the field of education.

Theoretical Framework of the Study

The famous educationist, Edgar Dale, through his work (2014) cited in Ivowi (2020) introduced the cone of experiences, a "visual aid to explain the interrelationships of the various types" of audio-visual materials as well as their individual position in the learning process." In its characteristics he described his cone as an attractive "visual metaphor of learning experiences in which the various kinds of audio-visual materials appears in the order of increased abstraction as one proceeds from direct experience (Dale 1946:38)."

In the final (1969:108) edition of his work Audio-visual Methods in Teaching, Dale introduced the cone of experiences as a "pictorial device" for showing the progression of learning experiences from direct first hand participation to pictorial representation and on to purely abstract, symbolic expression. On subsequent illustration, he gave the specific attributes of his cone in the following manner:

- It indicates the broad base that direct experiences provide for learning's and communication;
- It classifies instructional material according to the degree of experiential concreteness that each provides; its various levels may suggest the most appropriate method for teaching an abstract concept given the child's needs and abilities at the time; and
- It suggests the interrelated and interdependent nature of learning experiences and instructional materials.

Thus, it can be properly concluded that the famous educationist Edgar Dale has given us a solid psychological base for the use of methods, materials and equipment related to hardware and software technologies in the name of various types of audio-visual materials and equipment. In figure 1, Edgar Dale has arranged the learning experiences from the point of view of the young learners in the order of increasing abstractness or decreasing concreteness (taking the start point from the base of the cone). Let us try to have some idea about the classification titles mentioned in this cone of experience.

Real Direct Experience

These experiences have least abstractness and maximum concreteness. A learner himself experiences these by coming into direct contact with the actual happenings in a real life situation. The consequences of his own doing (What he does and in return to what he gets) and impressions of his sensory input (through listening, seeing, touching, smelling, and tasting) can provide him such type of direct first-hand experiences, e.g., When one does not slow the speed of his vehicle while driving on a public road even after reading or seeing the clear signal of a blockade, he is bound to suffer the consequences of his action (encountered in a real life situation directly by himself through his own doing) and will automatically result into most impressive and purposeful learning; Thus, according to Edger Dale, experiences gained by us in real life through our direct involvement on the first-hand basis may always prove to be the best mode, means or channels for the desired outcomes in a teaching-learning process.

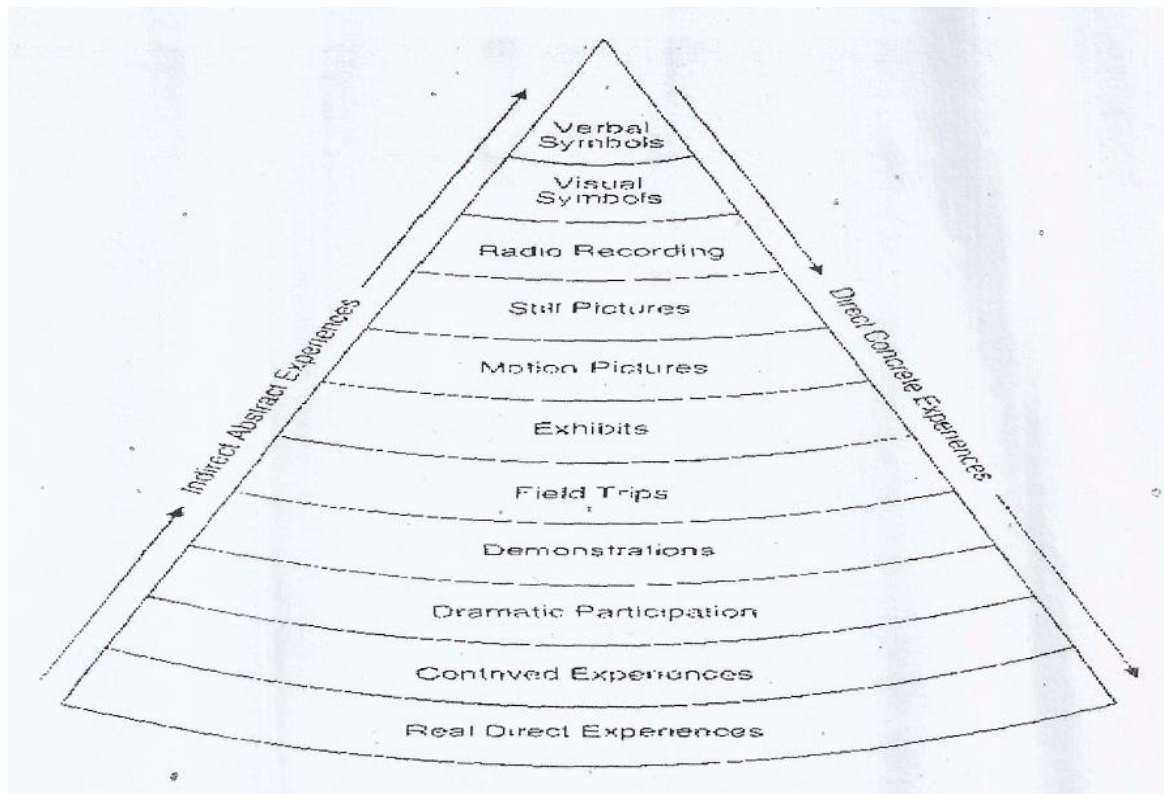


Figure 1: Adopted from Edgar Dale's cone of experiences.

Consequently, we should always aim to provide real life practical experiences to the students the shape of showing real objects and allowing them to come in direct contact with the realities of life on their own strived experiences.

Contrived Experiences

Some experiences are not very rich, concrete, and direct as real life direct experience. However, some experiences in are nicely planned and arranged which provide a closet alternative to the real direct experiences in the situation where it is neither possible nor feasible as well as practicable in real life direct experiences. Thinking in this way, "contrived experiences may be provided by the help of some laboratory experiments or working model. Since this limitation or replica of the reality is well-planned with an eye over the realization of the set instructional objectives, it may many times prove more fruitful than the experiences gained through real object of first-hand encounter.

Dramatic Participation

This classification includes the experiences gained by the students through their active participation and role playing in dramatic activities (activities in which the real events of the past or present are represented through visual display and role playing). Experiences gained through such activities may prove quite effective in the teaching-learning of many subjects like history, political science, language and literature? These activities may have a variety of forms like full length play, one act play, puppet shows, pageants, pantomimes, tableaux, dialogues, on the spot spontaneous acting and mock conventions, etc.

Demonstration

"Here, the experiences are gained by the students through the observation of what is being demonstrated by the teacher on the demonstration table in the form of actual objects

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or models. As example he can demonstrate the construction ;and working of a water pump, cycle and football pump, or may explain the structure and functioning of eyes, ears, lungs or heart through the demonstration of some simple and working models. For getting better results, a teacher should try to involve the students in the demonstration process through question and answers or taking their help in the arrangement and performance of demonstration.

Field Trips

These arranged situations in the form of educational tours, trips, excursions and outings may provide valuable opportunities to the students for giving real life direct experiences for the learning of many concepts and gaining useful information, knowledge and skills (coupled with a lot of entertainment) related to various issues of school curriculum.

Exhibition

Many times, it is not possible to go to the places for experiencing the reality and gaining first-hand experience. As an alternative the teacher may help the students by gaining useful experiences through the observation and organization of educationally significant exhibitions. One may have a museum or an exhibit established in some corner of the institution or may occasionally plan for the exhibition of the things, events and processes related to the general education and curricular issues of the school subjects. You must be surely examining the nature of the increasing order of the type of experiences in the Dale's cone of experiences. In field trips, we provide outlet for students to come in contact with the realities of life and gaining first-hand experiences. However, it can happen quite occasionally and may not be much fruitful in terms of the formal concrete educational gains. So a substitute (though less concrete or direct in terms of providing direct practical experiences) is provided by gaining some experiences through arranged exhibits.

Motion Pictures

Arranging exhibitions for concrete gain in terms of supplementing formal teaching-learning of the school subjects may not prove much fruitful and practicable. Therefore, Edgar Dale suggested the use of motion pictures, an audio as well as visual device. Although it is an artificial representation of the realities of things, persons, events or processes of the real life (past, present and future), yet the experiences gained through the use of motion pictures are very effective in terms of the realization of the teaching-learning objectives. The use of television and video recording and its playing may also be included in this type of audiovisual experiences, aimed as an alternative to direct first-hand experiences.

Still Pictures

In the category of still pictures, we may have all types of projective material such as pictures, charts, graphs, maps, illustrations, diagrams, cartoons, posters, slides or film strips which can be shown to the students with the help of any projective equipment. Essentially, these fall in the category of visual aids calling the use of the sense of sight on the part of students for gaining some visual experiences of the concrete reality. Hence, it is a sort of abstract artificial representation of the reality in comparison to motion pictures, television, and video appliances where we can have less abstract and more effective representation of the reality through the use of auditory as well as sight senses.

Radio Recordings

Radio, as an educational aid, may provide valuable auditory experience to the learners through certain specially arranged talks and discussions and information broadcast by the radio station as part of their scheduled institutional or general mass educational programmes. These programmes can be taped on audio tapes for their timely reference and use afterwards in classroom situations. Various types of sound and auditory experiences may also be taped through tape recorder and can be played back as and when needed so for the useful educational gains. In this way, tape recorder, microphone, radio recording and gramophone may be used as an effective audio device for the artificial audio representation of the realities. Such audio representation of reality, according to cone of experience, falls in the higher category of abstract and indirect representation in comparison to audio-visual or even visual presentation of the reality.

Visual Symbols

In the journey towards abstraction, presentation in the form of visual symbols provide more real and concrete experiences than the verbalism or verbal symbols presentation. Visual symbols presentation in the classroom situation may include the use of visual graphic material like charts, maps, diagrams, sketches, cartoons, posters, photographs, blackboard drawings, and sketching. Visual symbols (free of the use of any language) mostly comprise a universal language for communication. Their appeal is more forceful than verbalism and hence, they can provide a more potent source for the effective communication in the teaching-learning process. Their effectiveness can be sufficiently increased if a running commentary or necessary explanation regarding their messages is provided side by side by the teacher in his own voice or through any mechanical means like tape recorder.

Verbal Symbols

In the Dale's cone of experiences the verbal symbol presentation are marked as the most abstract learning experiences. The use of any language in its written or spoken form or both comes in this category of most abstraction. However, in comparison, spoken words are more abstract than the written words (comprised of some fixed visual symbols for carrying out the process of communication). In spite of their abstract nature, verbal symbols in the form of communication language are said to be a very effective tool, in terms of the economy of time, labour and money, for carrying out the communication process whether in the classroom or in the outside world.

Their strength lies in the process of proper encoding and decoding on the part of the sender and receiver of the message. With the help of words, a teacher is able to provide more information and knowledge to more students within the limited resources in the short time. However, use of the lecture or chalk and talk method may invite negative consequences of verbalism. It may enforce the habit of spoon feeding, memorizing of facts without understanding. Hence, pure abstraction through the use of mere verbal symbols should always be discarded, especially while dealing with youngsters in any teaching-learning process.

Conclusion

The use and application of hardware and software technologies for the organization and execution of the tasks and activities related to education possess a sound psychological

base as these can be helpful in the utilization of the principles and theories of learning, behavioural science and instructional psychology. Edgar Dale's cone of experience and multi-sensory instructional approach may be cited as the living testimony of such a claim. The cone of experience put forward by Edgar Dale tells us what type of learning experiences and mode of teaching and learning will prove advantageous to what type of learners in a given teaching-learning situation. In the light of such analysis, a subject teacher should accordingly plan the use and application of the hardware and software technologies in his instructional activities. Through his cone of experiences, Dale gives teaching-learning a solid psychological base by providing or acquiring real direct experiences. However, in its absence, we can otherwise proceed for an alternative in the form of the contrived and the organized virtual experiences.

The use of hardware and software technologies, material and equipment like radio, television, tape recorder, films, models, charts, diagrams, maps, slides and transparencies may prove quite beneficial not only in terms of providing a substitute for the direct real experiences, but also as a better means and media for the effective teaching and learning. In addition to this, the use of software technology in the form of dramatic participation, demonstration, contrived experiences, excursion or field trips, exhibition, still and motion pictures, radio recordings, visual and verbal symbols also enhances effective teaching-learning processes.

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