SELECTION AND UTILIZATION OF INSTRUCTIONAL MEDIA FOR EFFECTIVE PRACTICE TEACHING

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Abstract

This paper examined the essentials of instructional media for effective communication, especially during teaching practice sessions. The various types of media that could be selected and utilized by a teacher trainee for effective practice teaching were discussed. The paper highlighted the use of media in promoting trainee teachers‘ efficiency in the design, production and handling of media. General guiding principles for effective media selection during practice teaching were also examined and recommended for efficient classroom interaction between the trainee teacher and students to be ensured.

Introduction

Teaching practice is an important aspect of teacher education. In training schools and colleges, trainee teachers basically learn about their subject, that is, specialized knowledge in a particular subject area. The techniques of teaching subject content (pedagogy/methodology) and how children learn are acquired through courses in basic education and the study of education principles (Boulay, 1987). Through practice teaching, trainee teachers are introduced into the teaching profession in a practical manner. This ensures that teacher education is not only theoretically supported, but also practice oriented. Therefore, teaching practice provides students teachers with the opportunity to become fully acquainted with practical way, the details of classroom procedure, control and relationship with students and immediate matters of teaching materials, syllabus, and methods of evaluation, among others (Apel, 1993). Effective practice teaching is dependent on good communication between the trainee teacher and the students. Verbal instruction, which seems to be the easiest form of instructional delivery system besides real experience, is always very abstract. Since students enter into schools with varying degrees of abilities and potentials, trainee teachers need instructional media to help them communicate effectively, and thus cope with students needs based on their abilities. Instructional media are all forms of information carriers which can be used to record, store, preserve, transmit, or retrieve information for purposes of teaching and learning. They are materials used by practising and trainee teachers to present, illustrate, and elucidate teaching posits (Agun, 1988). Educators have long recognized the intrinsic value of instructional media in the teaching and learning processes. This-recognition engendered the inclusion of components of media education in teacher training programmes. For instance, trainee teachers in Nigerian universities and colleges of education are expected to offer at least a 2-credit course in educational technology. Within the perspective of the course content are communication
models, historical development of Educational. Technology, theoretical and "hand on" experience in media design, production, utilization and evaluation, and so on.

There are several inherent advantages in the use of media in practice teaching by trainee teachers. First, effectively used media are vital for encouraging and facilitating students' learning. Second, through the use of media, subject content can be more carefully selected and organized. Thus, the quality of instruction delivered by trainee teacher can be improved as subject content can be delivered in a well organized, consistent, specific, and clearly defined manner. Third, trainee's delivery of instruction can be much more standardized as learners' with varying abilities can receive the same message and their individual differences catered for using media. Also, instructional media usage in practice teaching can make instruction to be much more interesting and enjoyable. The changing images and use of special effects, among others, can reduce boredom on the part of learners. Furthermore, classroom interaction can be interactive. Media can also promote student-student interaction, student-teacher interaction, and teacher-student interaction, if pre-instructional planning incorporates principles such as stimulus variation, feedback, reinforcement, learner' participation, and so on. Media also save teaching time as they require short-time to present large information. They can be used to reveal needs and stimulate students' question. Thus learners' interest can be aroused, maintained, and stimulated to promote their imaginative power. On the whole, media ensure the application of classroom-oriented communication techniques. Therefore, learners should be assisted, encouraged and motivated not only to learn, but also to continue to learn (Blythe-Lord, 1991Farrant, 1981, Francis, 1985, Genhardt, 1982, Kemp & Smellie 1989, and Nicholls, 1975).

Types of Media and their Application in Practice Teaching

There is a profusion of instructional media, which can be used by trainee teachers to enrich their classroom teaching. The plethora of media offers trainee teachers considerable opportunities to make their teaching more effective and efficient. Effectiveness in this context implies how well educational goals and objectives are achieved, while efficiency refers to how instructional media are utilized to achieve teaching goals and objectives. Generally, media are categorized as print, non-print, audio, audio-visual electronics, non-electronics, and so on. Some of the instructional media considered relevant to trainee teachers in the classroom are discussed as follow.

Print Media:

The print media are some of the oldest media in education, this category of media are useful for informational or motivational purposes. They are used to convey verbal information through print. They form the most widely used media in education and they include textbooks, periodicals encyclopedia, newspapers magazines, file records minutes, and so on. They provide good source for trainee teachers to structure their lesson plans and notes. There are legions of textbooks on all areas of subject discipline. Sometime, they carry the main responsibility of organizing instruction and they can be used as basic instructional guide.
Newspapers, magazines, documents, file record and so on, are also very relevant for disciplines in the social sciences, art, and the pure sciences. Information contained in them can be current. Almanac also provides useful source of medium for trainee teachers in their classroom. Print medium can be used to supplement other media with maximum effect. Print can also incorporate several other media, like pictures and graphic materials, thus serving as multi-media (Blythe-lord, 1991 and Kemp & Smellie, 199989).

**Chalks and Chalkboard:**

They can be used to present instructional content as immediate sketchbook, and they are essentially temporary, for delineating ideas. When integrated with other media, they can give full explanation. However, most teachers in Nigerian schools do not use chalk and classroom presentation in all subject areas.

Neatness of the chalkboard must be ensured through the use of guidelines, templates, compasses and straight-edged rulers. Chalkboard should be divided into sections. Lettering should follow the occidental form of lettering, that is from the left sector of the chalkboard to the right, or use of only the middle portion of the chalkboard. Chalks to be used for teaching must be in form for wedges and cones, so as to give uniform thickness of line. Coloured chalks may be used when it is appropriate to show distinction among parts of drawings and for emphasis of teaching points (Blythe-Lord, 1991 and Jaroiimek, 1971).

**Graphic Materials:**

They are non-photographic, two-dimensional materials designed to communicate a message to the learners. They may incorporate symbolic visual and verbal cues. Graphic media include drawings, charts graphs, posters, among others. Drawings are more finished and representational arrangement of lives to represent persons, places, things, and concepts. Charts are abstract representations of abstract relationships, like tabular charts, time line, and classification charts. Graphs are visual representation of numerical data, like polar graphs, scatter graph, line graph, and so on. Graphs are useful for trainee teachers in subjects like economics, geography, and mathematics. Posters are also useful graphic media using combination of lines, colour and texts. Cartoons are line drawings that can be used to encourage students and enliven instruction. Flip charts and well charts can be used as speaker support and key point reference. They should be designed in a way, to ensure that they are large and short in content.

**Realia:**

These are real things or objects (as opposed to representation or models) as they are without alteration. They include coins, tools, artifacts, plants and animals among others. Specimen, exhibits, and cut-away objects are some of the classifications used for realia which have great value in virtually every subject. They can be relevant in subjects in the sciences (biology, physics, chemistry), history, economics, and so on. For instance, the of realia by a trainee biology teacher can do much promote student's interest in life science and care for insects, fish and animals. Students would also become much more involved in the classroom learning. Realia eliminate distortion in student's knowledge on the topics being taught. Furthermore,
using the display and exhibit method, realia provide students with opportunities for "hand on" interactions and experience (AECT, 1977, Blythe-Lord, 1991 and Kemp & Smellie, 1989).

Still Pictures:
They are non-projected, non-motion pictures in opaque form. They are photography representation of people, places or things, and can be used to present information in all subject areas: They are readily available for resourceful trainee teachers, in magazine, calendars, illustrations from textbooks, newspapers, and so on. When still pictures are properly mounted on cardboard, with proper edges, as individual pictures or in composite form, that is, combination of one or more pictures to produce a single visual, they can be used to pass across wide range of information (Kemp & Smellie, 1989 and Wittich & Schuller, 1973).

Models and Mock-Ups:
Models and mock-ups are three-dimensional representation of a real thing. Like actual objects, a model or mock-up can be looked at from all sides as it has breadth, length and depth. Models are representations of real things that are infinitely large, like earth or solar system, or real things that are small, whether animate or inanimate. They may be complete or real things that are small, whether animate or inanimate. They may be complete in every detail or more simplified than the original. Some models can be disassembled for learners' close observation.

On the other hand, mock-ups are differentiated from models by their usually larger size and by their moving and operating parts. Models and mock-ups have wide application in such subjects like physics, geography, biology, chemistry, and so on. Trainee teachers can buy commercially produced models or they can be improvised, using paper match (Blythe-Lord, 1991, Kemp & Smellie, 1989 and Wittch & Schuller, 1973).

Audio Media:
Audio media offer a wide range of opportunities for group or individual use. They can be used to deliver instruction involving verbal information, and also for guiding the learning of intellectual and motor skills. With the availability of small compact cassette recorders, audio medium can be produced by trainee teachers. It can also be used to supplement other media like filmstrips and slides. They are also relevant for learning objectives related to the affective domain of learning. Audio recording can provide response drill in mathematics, and language. Furthermore, several copies of the media can be produced easily. Audio medium is equally good for all types of instruction, from the precision of speech to the mental imagery formed by music and sound effect (Kemp & Smellie, 1989 and Wittich & Schuller, 1973).

Overhead Projectors:
Using the overhead projector, transparent materials are projected so that a group can see. It is simple to operate, and it is a versatile media for teachers to use. Transparency can face the audience from the front of the room and maintain eye-to-eye contact with students while projecting transparencies in a lighted room (Blythe-Lord, 1991 and Kemp & Smellie, 1989).
Slide Projectors and Filmstrip Projector:
Slide projectors are used to project slides—small format photographic transparency in colour or black and white, individually mounted and used to transmit instructional content. On the other hand, filmstrip projectors project images contained in filmstrips, which are series of small slides photographed in permanent sequence on a 35mm or 16mm film either in colour, or black and white. Some filmstrip projectors can also be used to project slides. Trainee teachers can use filmstrips and slides to enrich their instruction. They are less expensive, easily handled and stored for future use. They are adaptable for use in every subject area, and the rate of presentation for classroom use can be controlled by trainee teachers using remote, reverse, and advance mechanisms. Their presentations can be accompanied with print or audio recording (Blythe-Lord, 1991, Erickson & Curl, 1972, Farrant, 1981 Kemp & Smellie, 1989 and Wittich & Schuller, 1973).

Film Projector and Video Player/Projector:
Film projectors and videotape projectors are used to project motion pictures, when motion is a significant factor of a subject. Educational films are in black and white, and colour. There are also sound and silent motion pictures. Videotape availability has further widened the possibilities for the use of motion pictures, as they can be shown through monitor, that is, cathode ray tube, or projected using video projector or through the digital projector, for group use.

Motion pictures are relevant for all subject disciplines, in sciences, art, social sciences, and physical education. Motion pictures when accompanied by sound, may constitute a very effective way of emphasizing distinctive features for the tasks, which needs distinguishing the visual aspects of simulation. Motion pictures are also very good for ensuring students' positive attitude toward the subject of instruction. They can also be used to modify students' attitude in such areas like ecology, good work habit, hygiene in health education, and so on (Blythe-Lord, 11991 and Wittich & Schuller, 1973).

Multi-Media Presentation:
This involves combinations of visual materials. It is a learning resource package, which can be effective when several media are used concurrently for specific instructional purposes. When two or more pictures are projected simultaneously, on one or more screens for group viewing, the compound concept multi-image is used. However, when two or more different types of media are used, sequentially in a single instruction or for self-paced learning package, the term multi-media is used. Using multi media or multi-image, a large amount of information can be passed across to students, and high interest can be created in students. Furthermore, different media can be tailored towards different objectives outlined for the lesson (Blythe-Lord, 1991, Kemp & Smellie, 1989, and Wittich & Schuller, 1973).

General Guidelines for the Use of Instructional Media in Practice Teaching
While the instructional value of media in enriching the teaching of students by teachers cannot be doubted, media in themselves cannot assure good teaching. Their effective use can be through the integration of media in

(a) A trainee teacher should consider the entire school environment as a laboratory for students’ learning and the practical application of his/her knowledge. Therefore, instructional media selection, arrangement and re-arrangement of learning environment, and the use of materials and equipment to promote learning are basic in self-contained classroom.

(b) The entire neighborhood of the school and community resources should be viewed and utilized as a laboratory for student learning.

(c) Media should be designed, produced, selected, or used as resources to attain specific instructional objectives. That is, objectives should not be tailored to the media, rather, objectives should guide media utilization.

(d) Media to be used by a trainee teacher should be considered in terms of concreteness or abstractness of experience which the media would produce. Trainee teachers should be sensitive to the changing situation within the classroom and have alternative media to meet individual differences of the learners.

(e) Media should be selected for instructional purpose based on specific criteria which are directly related to instructional planning. These include:

(i) the nature of the audience, in terms of chronological age, sex, social, cultural, environmental, and economic background of the learners,
(ii) entry level,
(iii) motivation,
(iv) the physical abilities or disabilities of learners,
(v) learners long-established perception and cultural characteristics,
(vi) the objectives to be achieved (whether cognitive, affective or psychomotor),
(vii) nature of the subject content,
(viii) physical qualities of the media, that is, the attributes, authenticity and significance of the content,
(ix) cost of the media,
(x) expected role of students, and
(xi) the mode of instruction among others.

(f) Instructional media should be utilized in the content of a variety of teaching strategies. Use of resources should be observed and guided. The possibility of using multi-media should be considered. This is because a single media may not be adequate to achieve all the objectives outlined for a lesson.

(g) Media utilization should require learners' response. Thus, when designing any media, the trainee teacher should build into the programme things that will ensure learners' participation, through discussion, project, dramatization, and so on.

(h) Evaluating the use of media can be done through observation, individual project, and use of questionnaire. The information from the evaluation can be used to improve on media usage in subsequent lesson.

Conclusion
The foregoing presentation should have shown the significance of media in practice teaching, the myriad of media available for trainee teachers to enrich their instruction, and the guidelines for effective use of media. Through resourceful use of media, trainee teachers can present their lesson in an understandable way. Media, when carefully selected and integrated,
can ensure that student develop the right attitude toward-instructional content. Furthermore, classroom interaction between the trainee teacher and students can be enhanced. The use of media would also promote trainee teachers' efficiency in the design, production and handling of media. The experience could be transferred to their post training assignment as teachers, thus bringing about near perfection in later years as serving teachers. When media are used by trainee teachers, they can make students' attitude more positive, encourage their self-motivation, demonstrate associated factors and ideas, highlight specific topics and concepts, encourage relevance and credibility, and enhance understanding. This is because with media trainee teachers can deliver their lessons with much more vigour. Vigour implies brevity with exactness, as sophisticated and delicate ideas 'can be expressed with the faintest shades of meaning revealed through media.

References
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