



Historical Development of Instructional Design: Implications to Visual Arts in the Present-Day Classroom Processes

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Abstract

The paper offers an academic discourse on the historical development of instructional design and analyses and its implication to the present-day classroom processes. The paper presents history as a continuous dialogue between the past, the present and enables man to predict the future. This is necessitated by the needs to build historical values in Trainee Teachers and Educationists. Therefore, it further examines the importance of the historical development of instructional designs, outlines the various personages and their contributions to the subject matter and explores their implications in present day classroom situations. The paper contends that the contents of these contributions are still potent and very valuable to the modern classroom situations and therefore implores Trainee Teachers and Professionals to adapt these outcomes to valuable use in their educational practice.

Keywords: Historical Development, Instructional Design, Implications, Visual Arts, Classroom Processes

Introduction

The basic concept of history as a precursor for man's decision making is a valuable tenet the paper tenaciously pursues. The importance of history can be deduced from failures of non-adherence to mistakes of the past, therefore pay dearly and successes resulting from man's ability to analyze and make use of it for his benefits. Therefore, history does not end from its historical narratives, but from its analyses and synthesis and interpretation of the past events or happenings that give vantage understanding of the events of the time with the hope of knowing the future.

Concerns are observed that most teachers approach subject matters in line with their personal observations and concepts, without due regard to basic educational tenets, theories and principles of instructional designs for effective teaching and learning in the classroom for the achievement of the overall objectives. Cooper (2000) posits that, a teacher's personal concepts or theory may be an unverifiable opinion and therefore may work against the natural principle of learning therefore suggested that teachers must consult verifiable educational theories and principles for successful classroom processes.

Conceptual Approaches and Definitions of History

The concept of history is understood from diverse points of view and its uses is expressed according to the perception of the personality and background. Therefore, the concept and utility of history is approached through the educational theories and principles, results will therefore be



adopted to the present classroom situation. To begin with, Osokoya (2007) is interested in the interpretation and education of what history stands for, he was poised to make clear his points and supported that history deals on the stories of human beings that actually lived. Which means, it is not only that of the distant past but also of the present world we are living in. Here are some of Osokoya's (2007) collection definitions.

1. History is the continuous interaction between the historian and his facts and an unending dialogue between the present and the past (Carr).
2. History is the story or the evolution environment of one's, its development and the explanation of the present (Burton)
3. History is connected with all those sayings, thoughts, deeds and sufferings which occurred in the past (Ecton).

Though the collections of the definitions of history are few as compiled by Ogbondah and Okai(2003), however they concluded that, history is rather practiced consciously and adapted from various types that present best determined approach to forward their course. This paper, having surveyed a variety of concepts and definitions of history, view history as the narrative of man's past, both remote and contemporary times to safe guard errors and application of similar events to better life. Therefore, the narratives of instructional design in this paper is being reviewed in order to apply such educational tenets to further the education of Trainees and Professional Teachers.

Significance of History of Instructional Design Theories and Principles

The significance of the works of Educational Psychologists and Theorists can be better valued and useful when history projects its course. The following are some highlights of the significance of historical development of instructional design theories and principles.

- 1 It brings to focus some data-base on the theory, principles and practice of instructional systems and instructional design, which will be adapted in the Visual Arts Classrooms.
- 2 It transmits the intellectual output of the past Psychologists and Philosophers to interface with the present and project to the future. This is necessary; hence, Artists teachers would integrate art theories and make comparisons to enhance effective usage in the classroom.
- 3 It authenticates the tested learning principles and creates windows for further discourse on the subjects, in the process of Visual Arts practice in the Studio.
- 4 It teaches Visual Arts teacher and students of education and others in need of it to discover some fundamental approaches to overcome some classroom challenges.
- 5 It transmits the use of specific and vital instructional skills, prompts teachers and educationists to organize, prepare and plan and deliver the instructional processes
- 6 It provides the Visual Arts teacher the necessary tools for strategies of designing the instructions at different levels for successful operation of the organization in view, especially the Visual Arts.
- 7 It enables the Visual arts teacher to understand the psychological instances of human behaviour and learning, in order to approximate the range of their extremes, average and limitations.



Concept of Instructional Design

Instructional design is defined by Gagne and Briggs (1979) as a set of events that will affect learners in the manner that will facilitate learning. The idea behind instructions is to coordinate facilities in an appropriate manner, as stated by Gagne and Briggs to facilitate learning. If teaching and learning can be coordinated, the outcome must be value and goal oriented. Hence, Romiszozdki (1995) defined instruction as a teaching process that is goal directed, more or less pre-planned. He further explained, that nonetheless, the goal is set by the learner or external body, for example the teacher, or adopted from a syllabus. It is pertinent to state that irrespective of who sets the goal, it is important to determine and identify and follow up strictly.

For this paper, instruction is defined as the systematic approach to present and receive information, data and engage the learner in useful activities within the set of objectives even beyond, in other that learning will be promoted. This definition sees the learner as part of the process, hence plays a significant role, while there could be concepts and practices that are referred to “self-instructions”, whereas the term teaching is subsumed in instruction. While instruction covers a wider variety, teacher is limited, though very significant.

For these reasons of instruction to achieve the main goal, there must be packages, designed for effective attainment of goals, creating appealing environment for learning that could provide minimal comfort. This is commonly referred to instructional design, also known as instructional planning. Burden and Byrd (2003) see instructional planning as the creation or selection of the teaching, the learning activities, instructional materials and objectives of the lesson. They consider important among others, the objectives, this ii overall direct the process of the planning.

The History of Instructional Design Theories and Personages

The desire for knowledge and the need to educate people predates modern history – mainly because of its usefulness to the individuals and society is enormous and practicable. Ancient historical postulations have shown the impact of philosophers and their thought provoking questions and answers which changed man’s ordinary life. Style to complex one and the way man viewed the world. This and other changed happenings that generated education and the manner with which we should function.

Education in the ancient Greek world and possibly others was a privilege adventure, giving opportunities to the children of Aristocrats and the wealthy people in order to prepare leaders and condition others for regimented followership. Hence, the rise of Plato, Socrates and Aristotle have variously from several philosophical treaties of ideals of man. The existence of these philosophers and their intellectual activities evoke the desire to understand human mode of learning and knowledge acquisition, for example, two aspects of knowledge (epistemology), were in contention. These are empiricism and rationalism, Plato is of the former and Desecrates later (Edgar, 2012). Rationalism sees knowledge arising from reason, while Empiricism considers knowledge from the background of experience; from these standpoints, its doubtless that, these philosophical discourses had generated the present stance, hence gave rise to other disciplinary interventions on how learning takes place, for example psychology.



From ancient times, human beings had evolved, demanding to understand varieties of issues for example, human existence and the human mind (Edgar, 2013). As a result, learning was not only necessary for the wealthy and for the making of the kings and leaders, but to the ordinary people as well, in order to contribute to the society in general. It started with the learning of three (3Rs), reading, writing and arithmetic) which requires recitation and proving knowledge of language and calculation. These demands were upgraded to skills that could service the new industries, especially those of the Western world, the Industrial Revolution brought about the need to learn how to operate sophisticated Machines and Manipulation of highly skillful tools.

Moving on, new nationalism concepts, the Industrial Revolution with Political Economy evolved, where countries sought for economic strength and ultimately acquire superpower and superiority. All these require education and reeducation of its peoples to partake in the struggle. At the backdrop of these, there was need for change, according to Edgar (2012); World War 1 (WW1) stimulated further changes, especially the production systems of Industrial Revolution influenced the school system. The schools emulated the production pattern of the industries, basically because of high demand. Edgar (2012) emphasized, this affected the curriculum, instruction and assessment, which stimulated seven cardinal principles in American Educational System which include; health, command of fundamental processes, worthy home membership, vocation, civic education worthy use of leisure, and ethical character.

Beyond this, the world war 11 (WW 11) brought to the fore variety of challenges as regards Instructional Systems and Instructional Designs in the American educational history. The war operations needed all to recruit soldiers, who are proficient in education, not only in reading skills, but military personal that could interpret manuals attached to military gadgets for the purpose of the war. Therefore, the problem was to quickly train and prepare large number of military personal to take responsibility in the warfare. The solution to the problem was approached by educational psychologists, wholly through learning theories, advocated for planned and systematic development of uniform and effective training procedures (Roblyer. 2016).

They expressed the belief that, both human (teacher) and non-human (media) resources can be contained effectively to address instructional problem, hence, educational technology was utilized to solve educational problem. According to Edgar (2012), Robert Gagne was at the centre of it, through the theory of conditions of learning. Therefore, the package was utilized in the American educational sector of both the university and the k-12 schools projects.

Chronological Historical Survey of Instructional Design Models and Theories.

This excerpt was developed from the work of Pappas (2013).

1. 1903 – Ivan Pavlov discovers classical conditioning theory, while conditioning research on the digestive system of dogs.
2. 1910 – Thorndike introduces its laws and connectionism theory, which are based on the Active learning principle.
3. 1922 – Max Wertheimer, Kurt Koffka and Wolfgang Kholer introduce Gestall Psychology.



4. 1932 – Psychologist Frederic Bartlett proposes the Scheme theory.
5. 1937 – B.F. Skinner introduces the Operant conditioning theory.
6. 1937 – May and Doob Publish Competition and Cooperation, where he Cooperative and collaborative learning. Theory is launched, discussed and analyzed.
7. 1950_s – The information processing theory emerges.
8. 1950_s– Computer-based instruction is used in educational training environments.
9. 1954 – Skinner introduces the programmed instruction educational Model.
10. 1960_s – Howard Barrows introduces problem-based learning (PBL) in the medical education program at McMaster University in Canada.
11. 1963 – David Ausubel publishes his finds on the Subsumption Theory.
12. 1962 – The Keller Plan revolved around the individual instruction Model and is used in educational environment throughout the United States.
13. 1971 – Allan Paivic hypothesized about the Dual coding Theory; a theory of cognition.
14. 1974- - Merlin Wittrock publishes the Generative learning theory.
15. 1978 – Vygotsky’s Socioculture learning theory influences the west.
16. 1979 – Charles Reigeluth introduces the Elaboration Theory.
17. 1980 – Reginald Revans introduces the Action learning model.
18. 1983 – David Merrill introduces the component display theory and instructional model.
19. 1983 – J.M. Keller’s ARCS Model of motivation is published.
20. 1988 – Spiro, Feltovich, and Coulson introduce that cognition Flexibility theory.
21. 1989 – Brown, Collins, Duguld and Newman introduce their situated Cognition theory and the cognition apprenticeship model.
22. 1990 – The cognition & Technology Group at Vanderbilt University develops the Anchored instruction education model.
23. 1990_s – Multimedia and CD-ROMs were introduced in educational environments.
24. 1991 – Lave and Wenger introduces the communities of Practice model and the situated learning theory in “Situated learning legitimate peripheral participation”.
25. 1991 – Hudspeth and Knirk publish the case-based learning model in performance improvement quarterly.
26. 1992 – Roger C. Schank releases a a technical report, intruding the Goal-base4d Scenario model.
27. 1993 – The first computer-supported intentional learning Environments (CSILESS) prototype is used in a university setting.
28. 1995 – Saltzberg and Polyson publish Distributed learning on the world wide web, which outlines the distributed learning model.
29. 1995 – Dodge and March develop WebQuest.

Implication of the listed theories to Present Day Classroom Process

In the pursuit of the connection between instructional history to today’s classroom process, we read Edgar (2012) emphasized that “History is a great teacher” and implored



educators to understand in his words, the “Fallacies of worthy practices of the past” to further improve their job and realize the classroom objectives.

The survey of instructional design history presented above are still quite influential in our classroom interactions, these submissions are varied and multiple hence, few will be presented. In as much as these works have their critical reviews and a number of new ideas have been celebrated and utilized, the early 20th century theories and principles are contemporaneous and still implicit in the methods adopted in the present-day classroom situation.

Let us examine the design of the connect vision of the psychology of Edward Thorndike of the 19th and the 20th centuries, which still holds sways to the current classroom activities. This theory connects an aspect of learning in one and to the other. An instance to be drawn is the basic Drawing Potential developed in the Fine Arts classroom is certainly applied or connected to their areas of learning or practices. For examples, to the design needed for the execution of sculpture, ceramics, painting and graphic arts. On this lateral plane, the knowledge developed from drawing is applied to the engineering, medical and architecture, to mention a few. This perspective of learning by association reveals the broader theory of behaviourism which evoke stimulus response initiated by Pavlov, with the likes of Watson, Thorndike and Skinner.

Today’s referential to the theory in the classroom system takes us to the “previous knowledge” which is an important component of the curriculum and lesson or instructional design and at last lesson delivery. The former focus on instructional process that dealt on environment influence (Behaviourism) was replaced with Cognitivism, which believes that the learners can create knowledge by themselves. The proponents are Gagne, Piaget, Bruner and Dewey. They emphasized on problem solving therefore, learners were exposed to complex and rigorous learning environment, therefore research and investigative skills are developed to explore the environment to discover. To this end, today’s classroom instructional design and processes adopt scientific investigations, drawing example from ‘Project Method’, where individuals or groups undertake discovery approach to learning.

Our current curriculum and lesson plan are derived from Robert Glaser’s Instructional Plan Concepts of 1962, developed as a result of the needs for determining learning outcome, which demands the objectives of the instruction. Hence, today’s cue to the Discovery Method by Robert Glasier still affect the teaching and learning process. In this process, the objectives as outlined by the teacher to guide the instruction continues to be one of the important factors on the lesson plan as well as the classroom process. For instance, the induction process, determining the entry behaviour, formative and summative assessments are necessities of the instructional design.

Edger (2012) considers it “a milestone that elaborated the analysis of learning objectives and went on to relate different classes of learning objectives to appropriate instructional design”. The propagation of task analysis by Gagne was devised to give tasks, broken down into sequence, steps and hierarchical order, prompting the teacher to lead the learners to follow in order to achieve the instructional objectives. This is appropriate in today’s learning environment. Among the variety of theories not treated, one of which could be referred to as futuristic theory is the Systems Approach or System Instructional Design among others may include Glaser (Criterion Reference Testing).



Robert Mager (Instructional Objectives), Cronbach and Scriven (Formative and Summative Evaluation, David Merrill (Component Display Theory) and Charles Reigeluth (Elaboration Theory) project Instructional Design and processes to compact structural sequence with one devoid of complacency, but to achieve the objectives outlined. The theories configured computer tutorials that engineer self-paced study and distance learning (Roblyer, 2006). The referential deals and practice of today's classroom operation stems from the functional educational systems of these theories, where challenges are further turned to advantage. For instance, issues that begot distance learning, has its answer within this theory

It is therefore, pertinent to draw the reader's attention to Vygostky's approach to Instructional Structure which should open the mind to the reality of human learning capabilities; that the learner is a biological being and is part of the society. Hence, he emphasized that, the child should interact with the society to develop himself/herself, for that reason he opined that the child's culture is a critical factor that determines his cognitive growth. This knowledge, will certainly assist the teacher play the important role to guide, supervise and facilitate learning.

Conclusion

Centuries past, Philosophers, Psychologists and Educators have questioned the right and appropriate instructional methods and processes of teaching and learning, as a result, diverse and volumes of answers have been amassed impinging on critical issues of sweeping acceptance and criticism. The world has changed from simple to complex one, hence, issues that confront man is approached accordingly.

Instructional problems approach has evolved from mere literary recitation to extractive literature (Edgar, 2013), and problem solving and knowledge creation. All of these theories still find their place in the present-day classroom system. Therefore, as teachers' trainers, it is therefore needful to recognize the fact that, this class of professionals are bestowed with enormous responsibilities to explore students' potentials, create enabling environment and coordinate these for successful classroom achievement. If possible, propagate theories with effective, locally underlining principles that will mitigate current instructional issues.

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