

The Role of Adult Learning Styles and Instructional Design in Promoting Teaching and Learning in Colleges of Education, Ghana

Ohene Sefah Joseph^{1*}, Akosua Tachie-Menson², Benjamin Semenyó Lifeson³

¹Academic Counselor, Visual Arts Unit, Presbyterian College of Education, Akropong-Akuapem, Ghana

²Department of Educational Innovations in Science and Technology, KNUST, Ghana

³Unit Head/Academic Counselor, Visual Arts, Presbyterian College of Education, Akropong-Akuapem, Ghana

*Corresponding author: Ohene Sefah Joseph, Academic Counselor, Visual Arts Unit, Presbyterian College of Education, Akropong-Akuapem, Ghana. Tel: 0247473127; Email: ohenesefahj@gmail.com

Citation: Joseph OS, Menson AT, Lifeson BS (2023) The Role of Adult Learning Styles and Instructional Design in Promoting Teaching and Learning in Colleges of Education, Ghana. American J Sci Edu Re: AJSER-116. Doi: 10.47378/2835-6764/AJSER-117.

Received Date: May 17, 2023; **Accepted Date:** May 23, 2023; **Published Date:** May 30, 2023

Abstract

This research focused on the role of adult learning styles and instructional design in promoting teaching and learning in Colleges of Education in Ghana. The adult learning theories according to Malcolm Knowles (1984) and the ISMAN (2011) new model on instructional design were adapted for this study.

The mixed research design was chosen for the study. The population for the study was 103; including students and tutors of the Visual Arts unit of PCE, Akropong-Akuapem, Ghana. Only 33 samples were selected for the study. Interviews, observations, Questionnaire and Document analysis were the instruments used in collecting data for this study.

After the study, it was realized that Experiential learning style is the preferred learning style among the second-year students of the College. Also, tutors must prepare their lessons based on a specific instructional design for an improved learning outcome.

Keywords:

Instructional design, adult learning and students.

1. Introduction

Instruction is a systematic process in which every component (i.e. teachers, students, materials, and learning environment) is crucial to successful learning [1]. Instruction deals with teaching and learning activities. These activities should assist students to have knowledge through learning and move this knowledge from short-term memory to long-term memory. To do that, students need to learn how to rehearse, encode, process and feedback on new knowledge to be able to remember when they need.

In the instructional design process, there are a lot of factors that should be taken into consideration. These factors are closely related to each other and affect each other to a certain extent. These factors should be organized in the instructional design steps. For example, if the goals and objectives are not chosen, specified or written properly, then the next and other steps will contain some problems because of the inappropriate and incomplete items in the previous step. In the instructional design, the steps are all interrelated with each other. It is very important to order the steps in a way that will be logical and in relation to other steps. In other words, instructional design is a big responsibility to design teaching and learning activities. All steps should be thought through and chosen carefully and should be ordered in a meaningful way. Every detail can play an important role during the implementation. Every decision should be given due to a reason, not just for the sake of doing so [2].

The key to successful learning in most formal instructional settings is effective instructional design (ID). Instructional design for teachers serves as an organized source of directions,

which can help classroom teachers to integrate available resources to improve students' acquisition of the instructional goals [3].

Notwithstanding, tutors must consider their learner's learning styles anytime they are preparing lessons for a particular class. This gives room for instructors to identify individual learning styles hence, incorporating suitable methods and activities during instructional delivery. When the individual learning styles are fully recognized by the teacher, every learner feels recognized and also gets involved in the lesson delivery. This on the side of some teachers, also seem unnoticed as majority of teachers hardly take some moments to identify the style of learning for each learner. These teachers often prepare their lesson based on their past experiences with different year groups although learners have different preferences when it comes to learning.

1.1 Objectives of the study

1. To identify the instructional design tutors, use for teaching among second year Visual Art students of PCE Akropong-Akuapem, Ghana.
2. To describe the learning styles that are suitable for second year Visual Art students of PCE, Akropong-Akuapem, Ghana.
3. To adapt an instructional design for teaching and learning in second year Visual Art Students of PCE, Akropong-Akuapem, Ghana.

2.1 What is instructional design?

Instruction is a plan of teaching and learning activities in which learning is organized. This instructional plan motivates students to learn. The aim of instruction is to make the learning process take place [2].

Instruction is a systematic process in which every component (i.e. teachers, students, materials, and learning environment) is crucial to successfully learning [1].

Instruction deals with teaching and learning activities. These activities should assist students to get knowledge and move this knowledge from short term memory to long term memory.

Instructional Design (ID) focuses on ensuring the flow of the learning content and the development of the storyboard; while in other workplaces, the ID has to be involved in the media and graphic designing tasks. Despite these tasks, the ID is considered as the soul of creating effective learning materials [4].

Instructional design is a process that assists in the design, creation, and delivery of instructional resources, experiences, and courses. This discipline, also known as Instructional Systems Design (ISD), follows a multi-step approach to create various successful online courses effectively. In simpler terms, instructional design is about using our knowledge of how people learn to guide our instructional sequences and strategies to meet students' needs and desired learning outcomes.

2.2 The ISMAN's instructional design

The ISMAN (2011) instructional model considered these three theories (Behaviorism, Cognitivism and Constructivism) during the designing. It describes a five-step systematic planning process. These are: Input, Process, Output, Feedback, and Learning.

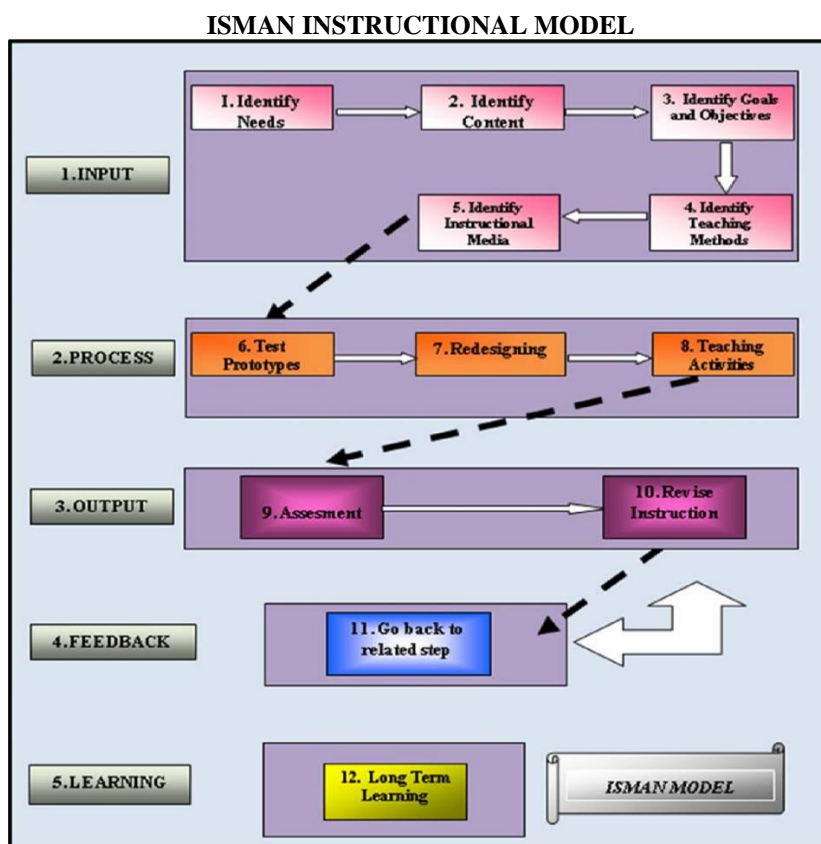


Figure 1: New Instructional design Isman model

2.3 Adult Learning Styles

Adults pursuing education can be done in formal setting as in higher education, apprenticeship or trade school. Adults who desire to acquire skill set pursue education to achieve their objective.

Developed by Malcolm Knowles in 1968, adult learning theory or andragogy is the concept or study of how adults learn and how it differs from how children learn.

Adult learning theories provide insight into how adults learn, and can help instructors be more effective in their practice and more responsive to the needs of the learners they serve (Teaching Excellence in Adult Literacy, 2011).

Adult learning theories provide insight into how adults learn, and can help instructors be more effective in their practice and

more responsive to the needs of the learners they serve (Teaching Excellence in Adult Literacy, 2011).

Adult learning theories take into account the distinct principles that have proven effective in steering adult learners to expand what they know, enhance their problem-solving skills, achieve their goals, and find their meaningful places in their respective societies [5].

Adult learning theory is a concept that explains the differences in learning approaches between children and adults [6].

It is the essential principles and assumptions of adult learning and how it impacts both educational and corporate organizations, as well as education practitioners [6].

Let them also be part of the reasons why a specific lesson must be scheduled on a particular day, time or period. They must be

considered in such decision as majority of adult learners have a lot of responsibilities attached to their studies. When these are considered by instructors and instructional designers of adult learning, they will pay much attention during lessons [7].

According to Malcom Knowles (1968) adults have five learning styles that must be considered for their learning. These include experiential learning, self-directed learning, project base learning, transformational learning and action learning.

3. Research Design and Methodology

A qualitative approach is one in which the inquirer often makes knowledge claims based primarily on constructivist perspectives. It also uses strategies of inquiry such as narratives, phenomenologies, ethnographies, grounded theory studies, or case studies. The researcher collects open-ended emerging data with the primary intent of developing themes from the data [8].

3.1 Population for the study

The population for the study was 103; including students and tutors of the Visual Arts unit of PCE, Akropong-Akuapem, Ghana.

3.2 Sample size

This study was conducted on 31 second year Visual Arts Students of PCE, Akropong-Akuapem. Out of the 31 students, 27(87.1%) respondents and 2 (100%) tutors participated in the study. The learning styles that were studied include; Experiential, Self-directed, Project Based, Transformational and Action Learning. The purposive sampling technique was used to select the thirty-one (31) students and two (2) tutors; 33 samples for the study. The following research instruments were used to collect the data for this study; interview, document analysis and questionnaire. Interviews, Document Analyses, Questionnaire

4. Presentation of findings

4.1 Teacher preparation towards lessons delivery

This was determined by using interviews and observations. The interview section was conducted with the class teacher a day before the lesson was delivered. The teacher was asked how he is preparing for lesson ahead. According to the teacher, he has been handling that course for more than a year now and as such, he needs not waste time going back to things he already knew.

Interview with some students that were sampled revealed that some students hardly understand the course or some topics delivered by the teacher as they find it difficult to comprehend the teacher. They feel ignored and not involved in the lesson.

Table 1 showing responses from the learners on their styles of learning.

MaxLS - Transform 2	Counts	% of Total	Cumulative %
AL	1	3.7 %	3.7 %
ExL	13	48.1 %	51.9 %
PL	2	7.4 %	59.3 %
SD	7	25.9 %	85.2 %
TL	4	14.8 %	100.0 %

Source.....Jamovi, 2022

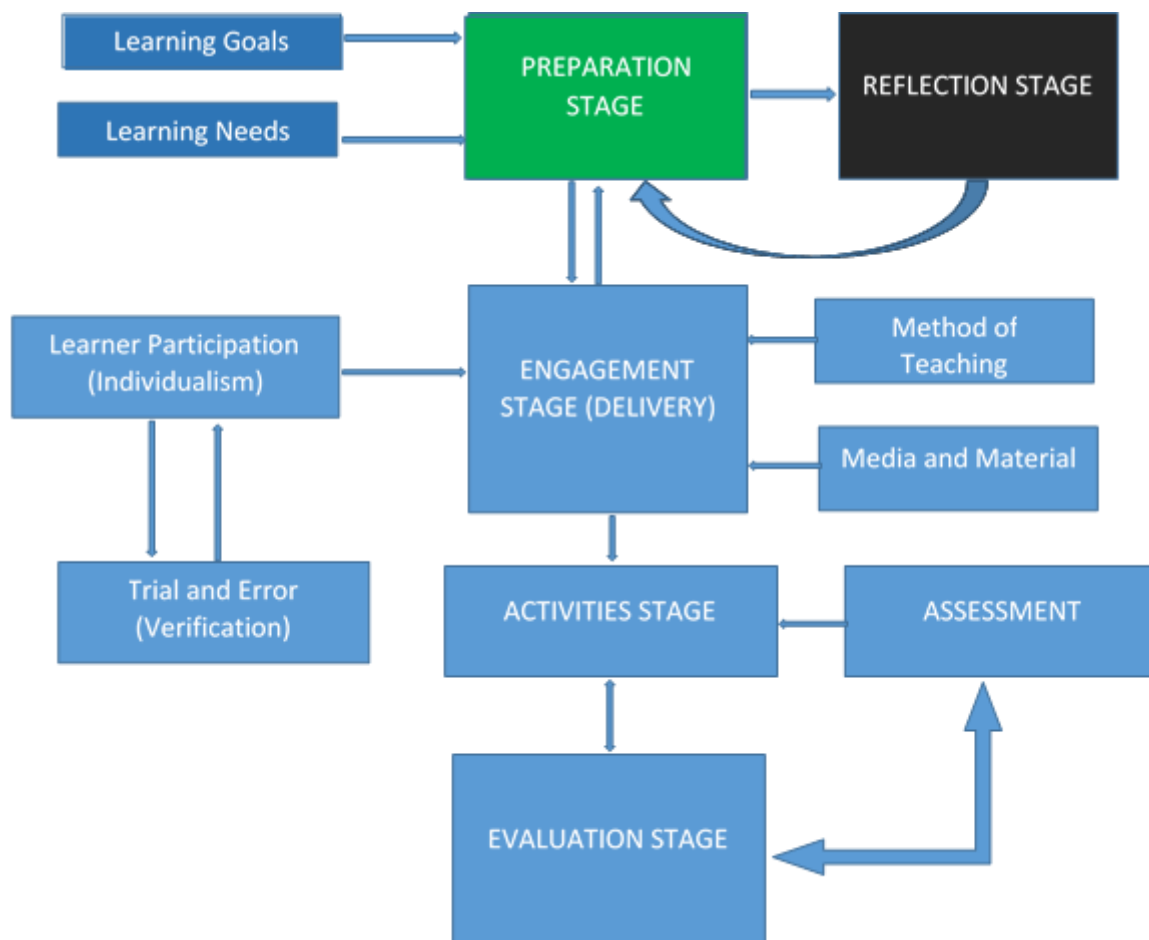
The total number of students who answered the questionnaire were 27. After the exercise, it was realized that 13(48.1%) are experiential learners and that is the highest as against Action Learning which received 1(3.7%) being the lowest. Instructors designing a model for this class must also focus on activities that create room for sharing of experiences related to lessons taught so that learners do not get stacked as the learning goes on. This also helps learners to break lessons down in their own understanding.

Notwithstanding, in order not to overlook the lowest group of learners; 1(3.7%) students who are Action learners, it is advisable for the teacher to also consider actions in their lesson deliveries. This will make the action learners engaged in class.

Teachers of this class must also take into consideration, the rest of the learning styles; Problem based Learning 2(7.4%), Self-directed Learning 7(25.9%) and Transformational Learning 4(14.8%) mentioned by the students in the data provided in the table above. This will break the one style of teaching and also make room for different styles of teaching for the benefit of the class.

1. An adapted instructional model to aid teaching and learning

Based on the above responses, an instructional model was framed to promote effective teaching and learning among learners. This was based on Experiential Learning Styles.



Stage 1: Preparation stage

The input step is the foundation of instructional activities for learning and teaching. The designer also identifies learner characteristics. This is a key step in the instructional planning because it gives teacher information about the effectiveness of the instruction.

Stage 2: Reflection Stage

The second stage is to reflect on the instruction by reconsidering everything that can be found in the first stage. After problems are identified, instructional designer reorganizes instructional activities. To reorganize instructional activities, pre-testing plays a key role to design an effective instruction. If an effective instruction is designed well, instructional goals will be achieved successfully by identifying learning needs.

Stage 3: Engagement/Delivery stage

The third stage of the model focuses much on the teaching activities. Teacher begins teaching activities in terms of learner's differences, content, teaching methods, goals and objectives with instructional materials and media.

Stage 4: Activities Stage

These are the activities the teacher goes through in order to test learning, prototypes, redesigning of instruction and teaching activities. It is mostly based on trial-and-error mechanisms of learning. In this step, teacher will be ready to try out the planned instruction with the students. The main goal of first stage is to find out which stages are working and which stages are not working. In other words, the problems in instructional design are identified during testing prototypes. Testing prototypes tells

instructor what students really want to learn and how to get there.

5. Conclusion

It is inevitable that some students would learn with or without an instructional design model or even despite poor or inappropriate learning support or teaching. However, the larger proportion of students may fail to learn or achieve due to an inappropriate Instructional Design. There is no single solution that satisfies all students, learning outcomes or learning environments. Teachers should therefore try as much as possible to blend their teaching methods and strategies in order to satisfy every learner in their class.

On the other hand, how some instructors and teachers go about implementing teaching and learning strategy has a significant impact on students. Even though a teacher might have taught a lesson for a long time, they are advised to find time to identify the individual learning styles of students they are about to teach as well as the class, and the entry behavior to use so that their students will not feel ignored and irrelevant in the classroom. Classroom teachers must also design an instrument to check learner's behavior and learning styles especially, when they are meeting them for the first time.

Further research can be conducted in the relationship between educational curriculum and instructional designs models for teaching and learning.

References

1. Amissah, P. A. K. & Sam-Tagoe, J. (2009). Psychology of Human Development and Learning. Akonta Publication.
2. Amissah, P. A. K. & Sam-Tagoe, J. (2002). Psychology of Human Development and Learning. Akonta Publication.
3. Cranton, P. (2002). Teaching for transformation. In Ross-Gordon (Ed.), Contemporary viewpoints on teaching adults effectively. San Francisco: Jossey-Bass
4. Dehnad, A. et al. (2014) 'Pursuing a definition of self-directed learning in literature from', Procedia - Social and Behavioral Sciences, 116, pp. 5184–5187. doi:10.1016/j.sbspro.2014.01.1097.
5. Dick, Walter & Carey, Lou. (1996). The Systematic Design of Instruction. Fourth Edition. Harper Collins College Publishers, New York USA.
6. Gavriel, J. (no date) The Learner in Medical Education
7. Kemp, J.E.; Morrison, G.R. & Ross, S.M. (1994). Designing Effective Instruction. Merrill.
8. King, K. (2000). The adult ESL experience: Facilitating perspective transformation in the classroom. Adult Basic Education.
9. Knowles, M. and Associates (1984). Andragogy in action: Applying modern principles of adult learning. San Francisco: Jossey-Bass.