

# **Innovative Instructional Design Packages for Promoting Inclusive and Participatory Interactive Learning Experience in Nigeria**

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## **Abstract**

This position paper focuses on innovative instructional design packages for inclusive and participatory interactive learning experience in Nigeria. The theoretical backup adopted for inclusive and participatory learning was constructivism which holds that learners construct knowledge through active involvement. The paper x-ray instructional design packages, basic components such as analysis, design and development and evaluation. The characteristic of good instructional designs as highlighted include provision of a clear roadmap, maximizes learners' engagement, assign the right content at the right time, giving evidence based on methodologies to help the students learn and delivers measurable results. Instructional design models considered appropriate for inclusive and participatory learning process were examined as Addie, Rapid, Gegne's Nine Event instructions and Isman instructional design models. These models serve as framework for developing modules or lesson that enhances the possibility of learning and encourages the engagement or participation of learners in the classroom. Learning in the cognitive, affective and psychomotor domains becomes specific areas of aptitude, skills and abilities in the learning domain. The study also highlighted the benefit of instructional design packages, this includes Promoting effective, efficient and appealing instruction, Promoting learners' involvement and motivation among others. The indicators of inclusive and participatory learning, principles and application were discussed. Challenges in the application of instructional design packages for inclusive and participatory learning that one could experience are human resources or training, leaners issues, fund, personality treat, learning style and preference challenges along with remedies. It was concluded that, it is imperative for students to be taught rightly according to principles that will make the learner a better person and the goals of education actualized through method that aim at improving critical thinking skills as innovative

instructional designs. However, there's no model which can be claimed to be absolutely superior to the others and any one of the models mentioned in the study might be used by instructors for different curricula and subject matters.

**Key words:** *Innovation, Instructional design, Inclusive, Participation and Learning experience*

### Introduction

Learning is not static but dynamic in nature, this becomes necessary to students, researchers and scholars that are interested in making the world a better place for man through teaching and learning environment as a major basis for education. Education is a systematic series of actions which involve teaching and learning of concepts in the contexts desirable for proper and acceptable integration in the society. It is an activity aimed at helping the child in the acquisition of appropriate skills, abilities and competences, both mentally and physically to equipped individual live in and contribute to the development of the society at large (Nnoli & Okafor, 2017). Ensuring effective learning process for acquiring knowledge is expected to start in a manner in which all teachers and learners achieve its goal, beginning from simple to complex so as to ensure a free flow process.

Achievement of the stated goals revealed a strong advocacy by scholars in education over the use of appropriate pedagogies essentially for effective teaching and learning outcome in all disciplines

such as innovative instructional design packages which encouraged learner centered methods over teacher centered methods in the classroom. Innovation is defined as the implementation of new and improved knowledge, ideas, methods, process, tools, equipment and machinery, which leads to new and better products, services and process. Apata, (2017), Opined innovation as strategy of designing through excellent teaching methods, practices, techniques and technology to motivate learners. This results in transformative educational experience for learners and provides veritable scaffold which is relevant and important to educational improvement. Instructional design is the practice of creating instructional experiences that makes the acquisition of knowledge and skills more efficient, effective and appealing. The above process consists broadly of determining the state and needs of the learner, defining the end goal of instruction, and creating some "intervention" to assist in the transition. The outcome of this instruction may be directly observable and scientifically measured or completely hidden and assumed in the classroom environment (Forest, 2016).

As modern classroom instruction gradually shifts from the traditional autocratic teacher-centered methods to democratic/learner centered teaching, translating the principles of learning into plans or specification for instructional activities through instructional design becomes very essential in solving students lack of understanding issues. Most often, learners are faced with challenges and difficulty in understanding concept due to the nature of the course/ subject coupled with the methods (lecture and brainstorming method) of instruction applied in classroom by teachers which stands as a major contributory factor directly to learners understanding. These direct methods employ one method approach during the course/subject of learning. Regina, (2021) pointed out that, the direct instruction strategy is highly teacher-centered and is among the most commonly used. Learners centered approach promote understanding of concepts to real life situation that helps the student act independently or solve problems when need arises. The learners-centered accommodate all students regardless of their categories in the domain of learning process mostly linked to inclusive practice involvement.

Inclusive practice as McManis, (2021) opined that attitudes and methods ensure all learners access mainstream education. specifically, this is not only to the benefits of disabled learners, but that

everyone works to make sure all learners feel welcome and valued, that they get the right support to help them develop their talents and achieve their goals. Florian and Spratt (2015) propose three constituents for inclusive teaching such as Firstly, understanding learning: which presupposes that teachers' knowledge of the theory of learning is significant for learner support. Secondly, understanding social justice: meaning if teachers believe in principles of social justice, it enables them to depart from a premise that all their learners can succeed in learning; therefore, difficulties that their learners experience are the responsibility of teachers. Thirdly, collaboration: which implies that inclusive teaching requires that teacher work collaboratively with others in turning their knowledge into action for learner support (Florian & Spratt, 2015). Inclusive of instructional design can be sustainably implemented with the considerations of inclusive learning space, in-person or virtual (Berman, 2020; Yeh et al., 2020). Arbour-Nicitopoulos et al (2018) conducted a scoping review of literature on out-of-school physical activities for children with disabilities, and provided recommendations for in-person informal learning settings. However, the principle of inclusion adopted here is the inclusion of instructional strategy that support the full

participation of learners irrespective of learning abilities or disabilities.

Participation; participation in teaching and learning gives students the opportunity to become actively engaged in a teaching-learning process that is a shared responsibility. Participation to learning can further guide students to commit to principles to ensure sustainable living. Participatory approaches are seen as a requirement that can contribute to a paradigm change towards the integration of instructional design packages in the classroom (Daisterheft, et al, 2015.). Similarly, it is a pedagogical approach that involves students in the entire learning process from the initial problem to solving and evaluating a problem and defining its solution. Lowenthal, et al. (2020) compared representative guidelines of accessibility compliance for online learning environments and provided practical strategies on making text, images, audio, and video accessibility for online learners. The participatory approach promotes cognitive and affective learning outcomes and develops the professional skills that are needed for enhancement (Mintz, 2013).

However, appropriate method does not only give student the head knowledge education but also influences positive attitude and skill development, influences their thinking and world view and instill in them those attributes intended in the

curriculum. The use of inclusive and participatory teaching is not only learners centered but most appropriate in fulfilling tasks and therefore bridge the gap between teaching and learning. It is possible for a teacher to believe he has taught very well but cannot prove that the students have learned. Proper learning takes place when the learners actively participate in the learning process instructional mostly when appropriate pedagogies are used, it will build and consolidate in young minds the virtue necessary for purposeful living in the Nigerian society. This study seeks to determined how innovative instructional design packages promote inclusive and participatory interactive learning experience in Nigeria.

### **Theoretical perspective:**

The theoretical basis of an inclusive and participatory interactive learning is constructivism. constructivist tenets as a set forwarded by (Piaget and Brunner 1960) holds that learners construct knowledge through active involvement or participation in the learning process. learners construct knowledge based on their previous knowledge and experiences. Doubts are resolved through interactive and collaborative efforts via discussions by learners, the process of interpretation, articulation and re-

evaluation are repeated with the teacher as facilitator.

### INSTRUCTIONAL DESIGN PACKAGES

An instructional design package is the designed solution to learning needs and problems of students. An instructional designed package is not just a teaching material like lecture note or next book. It is a well-arranged course content designed into learning projects incorporating strategies and methods in line with values goals and objectives. Branch and Kopcha, (2014) Believes that, instructional design package is intended to be a repetitive process of planning outcomes, selecting effective strategies for teaching and learning. Sandel, (2018) sees instructional design as the practice of systematically designing, developing and delivering international products and experiences, both digitally and physically in a consistent and reliable fashion, towards an efficient, effective, appealing, engaging and inspiring acquisition of knowledge. Furthermore, Defelice, (2021) agreeably considered instructional design as the creation of learning experience and materials in a manner that results in the acquisition and application of knowledge and skills. He added that, instructional design follows a system of assessing needs, designing, developing and evaluating their effectiveness.

Historically, instructional design is associated with the cognitive behavioral psychology though recently, constructivism has influenced thinking in the field (Sandel, 2021). Similarly, instructional design package adopts prescribed principles in learning models and theories to asses need, design process, develop and implementation, interactive connections with full awareness of its peculiarity and context.

**BASIC COMPONENT OF INSTRUCTIONAL DESIGN PACKAGES:** there are various instructional design models and processes but have similar component.

1. **Analysis:** involves having understanding of the needs of learners as well as why a training or learning solution is required. It could be that, the training is not the solution and some other type of performance improvement will be recommended. In this stage, you will have to develop the goal including learning objectives and determine how it will be delivered.
2. **Design and development:** involve the actual design and development of instructional materials or determining the delivery methods to be used which includes drafting a curriculum and lesson plans, developing instructional materials

and presentation, face-to-face or e-learning mode, jobs aids, participant guides etc.

3. **Evaluation:** consider how to determine the extent of solution success. Helps to know if it creates a measurable impact on the learners' behavior and weather that leads to the deserved results (Association for talent development, 2019).

#### CHARACTERISTICS OF GOOD INSTRUCTIONAL DESIGN PACKAGES

1. **Provides a clear roadmap:** good instructional design helps teacher and learner to understand what the course is all about. Instructional designer analyses, clarifies, summaries and streamline materials to be able to ascertain the require goal of the course.

2. **Maximizes learners' engagement:** designers take time to understand their audience by having the know-how and skills to create and organizes activities that are relevant, appealing and give the course credibility. When learners believe in what they do as valuable experience, they will be more engage and take onboard the knowledge you are offering more easily.

3. **Assign the right content at the right time:** instructional designer understands how the memory works, how the brain learns and create their courses accordingly. Courses that are not designed with these principles in mind can be frustrating to students. An instructional designer can pick out any one relevant material among the numerous in a way that only a trained specialist can do they get to decode which content is a most-know-information should know and could know that you may even omit from the course. The way they can present the right information at the right-time to the right-learners and empower students to decides what and where they want to learn,

4. **Evidence based methodologies to help students learn:** instructional designers do not only bring practical development to the table, but also have access to a wealth of theoretical knowledge and models. This help the program based on evidence of what method of delivery is most effective, doing the right thing leads to better learning outcomes.

5. **Deliver measurable results:** good learning objectives have to be measurable

and performance-based and have to demonstrate a real improvement. Instructional design combines different methods to analyze exactly what learners have from the course program. Without this clear outline, guidelines and measurement of objectives you cannot know if a learning project has been successful.

### **Instructional design models:**

In the 21st century, the instructional design model helps instructional designers to make sense of abstract learning theory and enables real world practices. The model steps also enable faculties in all disciplines to determine the scope of the course contents, sequence of instructions, innovative presentation and evaluating strategies. An instructional design model provides structure and meaning to an instructional design problem. Many of them have common instructional design principles and patterns that are used to design learning experiences, courses, and instructional content (Instructional Design Central, 2016). It allows teachers to communicate the purpose and reason behind a strategy as a framework which gives teachers the birds-eye view of all the major components that have to be included in the course. If a teacher is not familiar with instructional design model, then understanding and following instructional design best practices

from the beginning is crucial to your success. It is vast, and you will find numerous theories, models, and resources that have worked for different experts (Gutierrez, 2015).

Instructional design models are framework for developing modules or lesson that enhances the possibility of learning and encourages the engagement or participation of learners in the classroom, so they can learn faster and gain deeper understanding levels. A plethora of instructional design models exist such as Addie model, Isman, Gagne's, Bloom's taxonomy. Rapid instructional design model, assure model, Merrill's principles, kempt instructional design etc. instructional design model provides a clear sequential outline of the components of any curriculum design packages for the purpose of this study, four listed above will be adopted for this study as the models serve the following purposes:

1. Improving learning and instruction by following a systematic approach
2. Improving management of instructional design and development procedures by monitoring and controlling the functions of the systematic approach
3. Improving evaluation processes (including learners' performance)

4. Testing or building learning or instructional theory by means of theory-based design within a systematic instructional model.

## INNOVATIVE INSTRUCTIONAL DESIGN PACKAGES TO BE ADOPTED FOR INCLUSIVE AND PARTICIPATORY LEARNING EXPERIENCE CONSIDERED INCLUDES THE FOLLOWING:

### Addie Instructional Design Model

Addie model provide a step-by-step process of 5 phases described as analyses, design, develop, implementation and evaluation. explanation of the phases:

- **Analyses:** the first phase of content development is analysis which refers to the gathering of information about once audience, the tasks to be completed, how the learners will view the content and the projects overall goals. The instructional designer then classifies the information to make the content more applicable and successful.
- **Design:** the second phase is the design phase; the instructional designer begins to create their product. Information gathered from the analysis phase in conjunction with the theories

and models of instructional design meant to explain how the learning will be acquired. For instance, the design phase begins with writing objectives. Tasks are then identified and broken down to be more measurable for the designer. The final step determines the kind of activities requires for the audience in order to meet the goals identified in the analysis phase.

- **Develop:** the third phase is development; it involves the creation of the activities that will be implemented. In this stage the blueprints of the phase are assembled.
- **Implement:** after the content development, is the implementation. This stage allows the instructional designer to test all materials to determine if they are functional and appropriate for the intended audience/learners.
- **Evaluate:** the final phase is evaluation, ensures the materials achieved the desired goals this phase consist of two parts: formative and summative assessment. The Addie instructional design model is an iterative process, which means that at each stage the designer can assess the projects elements and if necessary, revise them. This process incorporates formative while

the summative assessments contain tests or evaluation is created for the content being implemented. This final phase is vital for the instructional design term because it provides data to alter and enhance the design.

### Rapid Instructional Design Model (RIP)

The rapid instructional design model was developed by Dave Meler (200). Ali, (2016) sees rapid instructional design as the application of learning principles in order to support the learning of students or involves designing the teaching in a way that it improves learners. RID incorporate accelerated learning techniques that try to design the learning environment with more practice, feedback and experience rather than direct presentation. This model involves four phases such as:

**Preparation:** arousing interest through; learners' goals and benefits statement, raises the learners' curiosity, remove learners' barriers.

**Presentation:** the initial encounter new knowledge and skills: real world phenomenon, interactive presentations, appeal to all learning styles, discovery activities, problem solving exercises.

**Practice:** the integration of new knowledge and skills: hands on trial/feedback/reflection/retrial,

individual reflection and articulation, skills building and practice exercise.

**Performance:** the application of new knowledge and skills to real work/world situation. apply the knowledge and skills on the job, build support system for reinforcing learning on the job, reward the successful use newly learned skills, provided time to integrate and apply the new skills.

Finally, the RID model presents a constructivist approach to curriculum design suitable for a course/subject.

### Gagne's Nine Events Instructions Design (1965)

The learning process stipulates that, learners learn in different ways and to achieve the best learning methods, different types of instructions are needed. Gagne's published the condition of learning which opined that certain mental conditions must be present in order for knowledge absorption and retention to occur. He introduced the nine elements of instruction based on internal factors (learners' prior knowledge) and external cognitive factors (outside stimuli) that contributes to learning, it includes:

- Gain attention of the learners: present a good problem or new situation in a stimulating and engaging way (reception).

- Inform learners of the objectives: describe the learning outcomes, the aims and objectives of the session, what skills will be accomplished and how they will be able to use the knowledge and give a demonstration where appropriate (expectancy)
- Stimulate recall of prior learning: remind learners of prior knowledge relevant to the current lesson, then show how the session are connected. Also provide learners with framework that helps learning and remembering.
- Presents the content/ material to be learned: use a mixture of media (e.g., text, graphics, stimulations, figures, sounds and follow a consistent presentation style, while avoiding chunking information, to avoid memory overload (selective presentation).
- Provide learners guidance: show examples and demonstration the relevance of the materials while using different approaches to demonstrate same information.
- Elicit performance: let the learners do something with the newly acquired behavior, practice skills or apply knowledge (response).
- Provide feedback: show correction of the learners' response, analyze learners' behavior (or let them do it), may present a good step-by-step solution of the problem models answer (reinforcement).
- Enhances performance: test if the lesson has been learned. Also, give sometimes general progress information in the context of the whole course/subject (retrieval).
- Enhance retention and transfer to the top: give example of similar problems or situations provide additional practice, put the learners in transfer situation and get them to review the training materials (generalization).

### Isman Instructional Design Model

Isman instructional design model goal points out how to plan, design, implement, evaluate and organize full learning activities effectively so that it will ensure competent performance in students. The main goal is to organize long term and full learning activities. the model is based on theoretical function of behaviorism, cognitivism and constructivism. Learners are expected to be active during teaching and learning activities and should be able to use cognitive, constructivist and behaviorist learning to construct new knowledge

of which educational technology materials are used. The materials are based on objectives. The model has five stages which include: input (five steps), process (three steps), output (two steps), feedback (one step) and learning (one step). The model is divided into twelve stages which is distributed in the five steps such as:

**Input Steps: Identify needs:** this need may be derived from the needs assessment with regards to particular curriculum by using survey, observation and interview methods to determine what the students need to learn.

**Identify contents:** here, contents are derived from student's needs. The main goal of this step is to clarify what to teach.

**Identify goals - objectives:** the goals and objectives are derived from need assessment and contents, and defined what students will be able to do after instructional process is carried out. This contains skills, knowledge and attitude. Skills could be psychomotor skills and intellectual skills. When students learn psychomotor skills, they develop muscular actions. when students learn intellectual skills, they develop cognitive activity such as discrimination, implementation and problem solving. The goal and objectives are derived from need assessment and contents.

**Identify teaching methods:** teaching methods is related with content and goals because goals are objectives that will be taught with the appropriate method.

**Identify instructional media:** this tells us how to deliver the instruction to students and apply communication and learning. Identify instructional media is based upon a review of needs, contents, goals and teaching methods. These instructional media should motivate students to learn and keep the new knowledge in the long-term memory. It includes books, journals, graphs, model, picture, poster, newspaper, field trip, blackboard, multimedia, films, radio, telephone, television, computer, data projection, internet and others. The instructional media is usually used to enhance learning by instructional designer.

**The Process Step: The prototypes;** the main goal is to find out which stages are working and which stages are not working. Testing prototypes tell us what students really want to learn and how to get there.

**Redesigning of instruction:** after problems are identified, we reorganize 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.

**Teaching activities;** teacher begins teaching activities in terms of content, teaching methods, goals and objectives with instructional media.

**The Output Step: Assessment;** teacher uses formative and summative evaluation methods to check goals and objectives. The process requires teacher to implement assessment tools to determine whether the students did demonstrate the skills, knowledge and attitudes that teacher described in instructional goals and objectives or not. When the students participate in the instructional activities, the teachers want to know whether they learned what the instructional plan expected them to learn. Teachers should analysis the results and makes decision on where to go in the instruction.

**Revise instruction:** Evaluate all instructional activities, if we find problem during the instructional design process then, we solve the problems after redesigning the instruction.

**Feedback:** Go back to related steps: the feedback process involves revise instruction based upon the data collected during the implementation phase. If, during the phase, teacher finds that students are not learning what the plan wanted them to learn or they are not enjoying the learning process, teachers will want to go back to related step and try to revise some aspect of their instruction so as to better enable their students to

accomplish the goals. During this cycle, instructional designer may go back to any steps where a problem occurred.

**Learning:** Long term learning: the learning process involves full learning. in this process, teacher wants to make sure that students have learned what the instructional plan wanted them to learn. If, during the phase, teacher find out that the students have accomplished the goals in the instructional activities, teacher will want to go for new instructional activities. At the end of this step, long term learning is accomplished by instructional designer.

### DOMAINS OF LEARNING

Domain of learning refers to specific areas of aptitude, skills and abilities a learner can accomplish. However, this is also seen as forms of learning which has three domains, namely:

**Cognitive domain:** deals mainly with categories, mental or intellectual processing of information or related to knowledge and critical thinking of a particular topic (development of the brain).

**Affective domain:** deals with development of the heart, feelings, interest, awareness, values, dispositions or temperament, growth in attitudes emotional reaction (ability to feel another living thing pains or joy) that are developed during the learning process.

**Psychomotor domain:** deals with skills based to manipulate the body to perform a physical movement. It is the manipulative skills developed during the learning process (fadul, 2019).

### THE BENEFITS OF INSTRUCTIONAL DESIGN PACKAGES

The tasks of an instructional designer are to facilitate learning so that the learners are able to apply their newly acquired knowledge, skills and attitude in a range situation. The systematic and sound application of learning theories and principles to produce functional learning materials fundamentally supports a learner centered and outcome-based approach. In this way, learners are expected to demonstrate improved job performance. The main advantage of instructional design package is that it is a systematic decision-making process of finding a solution to an instructional problem. The instructional approach brings about innovations that can translate learning problems into plans that the quality of the instruction is assured. It focusses on achieving set learning outcomes and therefore, the instructional objectives show all stakeholders (learners, learning facilitators, administrators, employee and parents), what the intention of the learning materials are. The performance standard and assessment criteria provide a means of determining whether or not those outcomes have

been met. Client and users can then trust the effectiveness of the interaction, because all aspects that would influence the design are considered and the final version of the learning materials has been revised and tried out until the learning outcomes are met. Other benefits include:

- Assisting in the planning, coordination and management of the various tasks, the different roles-players, the different outputs, the timing and costing of such projects in other words instructional design supports project management.
- Promoting effective, efficient and appealing instruction.
- Promoting learners' involvement and motivation.

### INDICATORS OF INCLUSIVE AND PARTICIPATORY LEARNING;

Means in developing inclusive and participatory practices': Alicia, (2014).

- Engage students in collaborative actions, project-based learning, and real-world problems and projects.
- Develop technological skills that allow students search for, organize, and analyze information, communicate and

express their ideas in a variety of media forms.

- Provide students with individualized instruction, customized to meet the needs of students with different entry levels, interests, or conceptual difficulties.
- Address issues for equity with students of different genders or ethnic or social groups and/or provide access to instruction or information for students who would not have access otherwise because of geographic or socioeconomic reason.
- ‘Break down the walls’ of the classroom, for example, by extending the school day, changing the organization of the class, or involving other people (such as parents, scientists, or business professionals) in the education process.

## PRINCIPLES OF INCLUSIVE AND PARTICIPATORY LEARNING EXPERIENCE (S.V idhya at all, 2022)

- **All children belong:** Inclusive education is based on the simple idea that every child and family is valued equally and deserves the same opportunities and experiences. Inclusive education is about children with disabilities – whether the

disability is mild or severe, hidden or obvious – participating in everyday activities, just like they would if their disability were not present. It’s about building friendships, membership and having opportunities just like everyone else.

- **All children learn in different ways:** Inclusion is about providing the help children need to learn and participate in meaningful ways. Sometimes, help from friends or teachers works best. Other times, specially designed materials or technology can help. The key is to give only as much help as needed.
- **It is every child’s right to be included:** Inclusive education is a child’s right, not a privilege. The Individuals with Disabilities Education Act clearly states that all children with disabilities should be educated with non-disabled children their own age and have access to the general education curriculum.

## APPLICATION OF INSTRUCTIONAL DESIGN FOR INCLUSIVE AND PARTICIPATORY TEACHING/LEARNING:

- Arranging multiple opportunities for students to take in the core information or concepts;

- using a variety of ways to make sense of ideas (presenting in different formats or styles);
- using a range of opportunities to demonstrate what has been learnt;
- providing quality learning experiences for all students regardless of their starting points;
- using Curriculum Framework documents to plan learning experiences;
- preparing for the future and adapting for different skill levels
- adjusting the amount of 'output' required and using peer and teamwork;
- Linking learning to real-world purposes
- direct teaching of routines and organizational strategies
- Accessing relevant technology
- engaging in teamwork – using teacher aides, year or subject area teaching teams in all stages of the curriculum cycles.

## CHALLENGES INVOLVE IN THE APPLICATION OF INSTRUCTIONAL DESIGN FOR INCLUSIVE AND PARTICIPATORY LEARNING EXPERIENCE

There are many challenges facing inclusive and participatory learning experience through the use of innovative instructional design packages such as:

**Human resources challenge:** most teachers might not be abreast with the innovative techniques or instructional materials require for the innovative approaches. The high costs connected to recruiting, hiring and training new teachers are just part of the problems facing the utilization of innovative instructional packages. This had made teacher quality and student achievement a risk in this high-turnover, the impact

is particularly profound in urban and rural schools that are in greatest need of highly qualified and effective teachers. oftentimes, many schools have high numbers of teachers who might lack experience and qualification.

**Learners' challenges:** learners today live digitally every day. They use the internet, text messages, make use of social network, and multimedia fluidly in their lives outside of school and they expect a parallel level of technology opportunity in their academic lives. There is disconnection between the way students live, the way they learn and their engagement ultimately suffers. Closing this gap is a challenge for current innovative instructional designed packages.

**Personality challenges:** to some extent, there is recognition among educators that personality characteristics such as self-reliance, attitude, anxiety, independence, emotional stability have different effects on innovative instructional designed packages. Consequently, attention should be paid to students' personality needs particularly because of their cultural backgrounds. Nevertheless, while the effect of personality characteristics on learning is significant, very little has been done or even suggested regarding the adaptation of teaching strategies to students' different personality traits and needs (wasegu, 2019).

**Learning styles and preference challenges:** Learning style and preference affects the way students approach any task and the way they function under different conditions and different learning environments. Some educators have begun to acknowledge the importance of teaching strategies to students different leaning styles through innovative instructional designs but no efforts have been devoted to this promising endeavor.

### REMEDIES TO THE CHALLENGES IN THE APPLICATION OF INSTRUCTIONAL DESIGNS FOR INCLUSIVE AND PARTICIPATORY LEARNING EXPERIENCE

**Improvement of human resources:** many teachers may lack the experience and the competence in the application of innovative instructional designs packages in teaching and learning, therefore it is advisable that the management organize and encourage retraining programmes, workshops, seminars and conferences in relevant areas such as this can be very impactful.

**Supervision role:** supervision is indispensable part of a good management. So, there's need for the management system to strike a balance and make out adequate time to visit the classroom to observe the activities especially in methodology being used by teachers while teaching.

**Funding:** there should be adequate provision of fund by the government and other sources such as communities, NGOs, individuals among others to enhance effective application of innovative designs.

**Improvement of instructional materials:** many authors have reported the issues of inadequacy of equipment in educational institutions, couple with high cost of materials resources required for effective use of innovative instructional designs in the classroom.

### Conclusion:

Learner centered approach to teaching provides for learning in the cognitive, affective and psychomotor domains. Instructional pedagogies

should approach holistic learning and development of learners. If this is obtained, Nigerian schools will produce not students who have acquired knowledge but right attitude and appropriate skills necessary in solving societal issues. It is therefore imperative for students to be taught rightly according to principles that will make the learner a better person and the goals of education actualized. So, let method that aim at improving critical thinking skills of students be utilized such as applied innovative instructional designs. However, there's no model which can be claimed to be absolutely superior to the others and any one of the models mentioned in the study might be used by instructors for different curriculum and subject matters. The intellectual level of the students, their learning abilities and experience levels may also determine the choice of the Instructional design model to be use.

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