

Journal of Education Research and Library Practice (JERLP)

Analyzing the Training and Teaching Skills in Set Induction for Architecture Lecturers in Selected Polytechnics in Northern Nigeria

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Abstract

This research endeavours to analyse and enhance the pedagogical practices employed by Architecture lecturers, with a specific focus on the critical phase of set induction. Set induction plays a pivotal role in engaging students and setting the tone for effective learning experiences. The study aims to assess the existing training programs and teaching methodologies utilized by architecture lecturers in selected Polytechnics. Kaduna Polytechnic, Federal Polytechnic Bauchi, and Federal Polytechnic Nasarawa, seeking to identify strengths, weaknesses, and areas for improvement. The research methodology involves a combination of qualitative and quantitative approaches, including surveys, interviews, and classroom observations. Data will be collected from a diverse sample of architecture lecturers to gain insights into their current set induction practices, the effectiveness of training programs they have undergone, and the challenges they encounter in implementing these techniques. Analysis of the collected data will provide valuable insights into the alignment between existing training and teaching methodologies and the dynamic needs of Architecture Education. The research aims to propose recommendations for refining and supplementing current training programs, fostering the development of advanced teaching skills, and ultimately improving the overall quality of Architectural Education in polytechnics. This research is significant as it addresses a critical aspect of pedagogy in Architecture Education and contributes to the ongoing discourse on effective teaching practices. The findings will not only benefit architecture lecturers but also provide valuable input for educational institutions and policymakers aiming to elevate the standards of architectural education in polytechnics.

Keywords: Teaching Skills, Architecture Education, Set Induction Techniques

Introduction

In the dynamic landscape of Architectural Education, the role of Educators extends beyond the mere dissemination of knowledge to encompass the cultivation of critical thinking, creativity, problem-solving skills among students (Mastrokoukou et al., 2022). At the heart of this transformative process lies the art and science of teaching, where the effectiveness of instructional methods directly influences the quality of learning experiences. Set induction, as a crucial phase in the instructional process, holds the key to engaging students and creating a conducive learning environment (Iqbal et al., 2021). This research embarks on an exploration of the training and teaching skills employed by architecture lecturers during set induction, with a specific focus on educators in selected polytechnics.

The Architectural discipline, characterized by its interdisciplinary nature and evolving methodologies, demands educators who are not only well-versed in their subject matter but also equipped with effective pedagogical strategies. Recognizing the significance of set induction as a catalyst for

stimulating interest, fostering curiosity, and preparing students for the learning journey, this study seeks to assess the current landscape of training programs available to Architecture lecturers. (Sneha et al., 2016)

As the Educational landscape continues to evolve, it becomes imperative to evaluate the efficacy of existing training methods and teaching practices (Sneha et al., 2016) This research aims to fill a critical gap in the literature by providing a comprehensive analysis of the training and teaching skills related to set induction specifically tailored for architecture lecturers in polytechnics. By delving into the intricacies of set induction, we aim to identify areas where current practices excel, pinpoint potential shortcomings, propose recommendations refining pedagogical approaches.(Magill et al., 2023)

The quality of Education in any society is directly related to the quality of its lecturers, and it is clear that qualitative improvement in education depends upon the proper training of lecturers and their skills. A lecturer must necessarily possess

creative abilities and professional skills and techniques to enable him or her to discharge his duties according to the needs of society and the nation. One such critical teaching skill is that of Set Induction, also known as the Pre-instruction Procedure, which is recognized as a leading part in a sequence of comprehensive skill requirements for effective teaching. The concept of Set Induction in the teaching process is one of the components of the overall skill development activity known as microteaching. Microteaching itself is described by (Ghafoor, Sumaira, Almasik, and Kayani, 2012) as scaled-down teaching, which is also known as simulated encounter designed and teaching laboratory. Its main objective is to help lecturers improve both contents and methods of teaching, develop specific teaching skills such as questioning, the use of examples and simple artifacts to make lessons more interesting, use effective reinforcement techniques, and introduce and close lessons effectively.

In the subsequent sections, the detail of the research methodology, will highlight the significance of set induction in the context of Architecture education, and outline the potential implications of this study on both pedagogical practices and the overall quality of Architectural Education in polytechnics. As the research navigates this exploration, the overarching goal is to contribute valuable insights that can inform the development of targeted training programs and elevate the teaching skills of architecture lecturers, thereby enriching the educational experience for aspiring architects.

According to (Eggen Paul, 2020) Set induction introduces a lesson or a new topic within a lesson in a way that will interest learners in what is to follow and help to establish what they already know and link this with what is to follow.

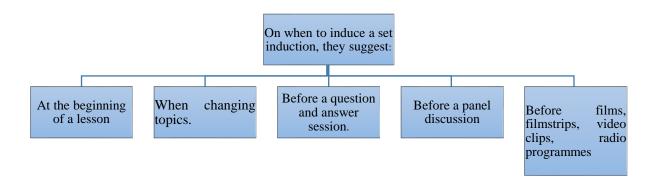


Figure 1: When to induce a set induction.

Source: Authors field work.2022

The components of set induction, according to Eggen Paul (2020), consist of.

Components of set induction

Attention gaining: this involves the teacher's use of voice, gesture and eye contact; the use of audio-visual aids; changing the pattern of teacher-learner interaction to arouse the learner interest at the start of a lesson

Motivation stimulation: the teacher here excites the learners' curiosity or introduces an element of surprise into the lesson by introducing an activity or telling a story.

Cognitive link: this involves reviewing previous lessons or making references to events or interests of learners.

Structure provision: involves stating of the limits of tasks to be carried out and use of advanced organizers. This means telling the learners the objectives of the lesson at the beginning and gradually working towards achieving them.

Figure 2: Components of set induction Source: Authors field work.2022

For the lecturer, therefore, the success of a lesson objective will hinge critically on how skillfully the lesson is introduced and how well the Learners' attention is gained and held.

The main instructional objectives of the Architectural Technology course at both Ordinary and Higher National Diploma levels are to see that the students "have the opportunity to express their design ability through a simple project" and "perfect the student's ability in presenting design projects and enable him to display his talents to the optimum" respectively (NBTE, 1989). This can only be achieved if there is an effective impact of knowledge and skill on the student. To achieve this, the skill level of the instructor needs to be very high. Indeed, according to (Avijit, 2022), competence and possession of skills are what make a lecturer effective. Lecturers in the Architecture department at Kaduna Polytechnic, Federal Polytechnic Bauchi, and

Federal Polytechnic Nasarawa teach a variety of courses as contained in the curriculum covering a variety of subjects. This research will cover the aforementioned polytechnics.

STATEMENT OF THE PROBLEM

In the realm of Architectural Education within Polytechnics, there exists a critical gap in understanding the adequacy of training and teaching skills employed by Architecture lecturers during the Set Induction phase. Set Induction, as a pivotal element of the instructional process, plays a crucial role in shaping the learning experiences of students and fostering an environment conducive to creative exploration and problem-solving skills development. Despite its acknowledged significance, there is a dearth of comprehensive research that examines the alignment between existing training programs and the dynamic needs of architecture lecturers in polytechnic settings.

The current state of Architectural Education is marked by a rapidly evolving pedagogical landscape, influenced by technological advancements, changes in student demographics, and emerging interdisciplinary approaches. Within this context, the effectiveness of Set Induction practices becomes paramount, as it sets the tone for the entire learning experience in Architecture. However, the adequacy of training programs and the proficiency of Architecture lecturers in employing contemporary teaching skills during this critical phase remain underexplored.

AIM AND OBJECTIVES

The study aims to analyze The Training and Teaching Skills in Set Induction for Architecture Lecturers in selected Polytechnics in Northern Nigeria and to propose a sustainable framework for set induction training and development in the Department of Architecture, Kaduna Polytechnic, Federal Polytechnic Bauchi, and Federal Polytechnic Nasarawa.

Objectives of the study

- i. To identify the demographic characteristics and level of awareness of the basic components and perception of the Set Induction skills for Architecture lecturers in Northern Nigeria.
- ii. To examine the level of skills possessed by Lecturers in the application of the various components of Set Induction for Architecture lecturers in Northern Nigeria.
- iii. Identify best practices and recommendations for enhancing the training and teaching skills of architecture lecturers in Northern Nigeria.

Research Questions of the study

- i. What are the demographic characteristics and level of awareness of the basic components and perception of the Set Induction skills for Architecture lecturers in Northern Nigeria?
- ii. What is the level of skills possessed by Lecturers in the application of the various components of Set Induction for Architecture lecturers in Northern Nigeria?
- iii. What are the best practices and recommendations for enhancing the training and teaching skills of architecture lecturers in Northern Nigeria?

SIGNIFICANCE OF THE STUDY

This study holds significant implications for the field of Architectural education in Polytechnics by addressing a critical gap in understanding the adequacy of training and teaching skills during the set induction phase. The research aims to enhance pedagogical practices by providing targeted insights into the challenges faced by Architecture lecturers, contributing to the refinement of training programs, and the development of effective teaching strategies. The study's outcomes promise to foster student engagement, elevate learning experiences, and thereby positively impact the overall quality of Architectural Education. Furthermore, the research adds valuable knowledge to the educational research landscape, with potential policy implications that can influence guidelines and standards for pedagogical practices in Architecture Education within Polytechnic Institutions.

LITERATURE OF REVIEW

The research focuses on the analysis of training and teaching skills in set induction for Architecture lecturers in selected polytechnics is a timely and significant contribution to the field of Architectural education. The comprehensive exploration of this specific pedagogical phase reflects an awareness of the evolving nature of educational practices and the need to adapt teaching methodologies to meet contemporary challenges.

The inclusion of relevant citations from the past period, such as (Mastrokoukou et al., 2022), (Iqbal et al., 2021), and (Sneha et al., 2016), provides a solid theoretical foundation for the study. By incorporating these contemporary perspectives, the research demonstrates an understanding of the recent developments in pedagogical theory and acknowledges the importance of reviewed literature in informing educational research.

The emphasis on set induction as a focal point for analysis is commendable, as it recognizes the pivotal role this phase plays in shaping the learning experiences of Architecture students. The research seeks to bridge the gap between existing training

programs and the dynamic requirements of Architectural Education, addressing the specific needs of lecturers in polytechnic settings. This targeted approach is likely to yield insights that are directly applicable to the challenges faced by educators in this context.

The landscape of architectural education has undergone significant transformations over the past decade, necessitating a closer examination of the training and teaching skills employed by architecture lecturers, particularly during the critical phase of set induction. The following literature review provides an overview of key themes and perspectives related to pedagogical practices in architectural education, with a focus on set induction.

review of relative literature, as viewed by Oyetunde (2002) and Egga (2013), is the bedrock of any meaningful research as the procedures in the study are related to the background literature. Therefore, the researcher has made a literature search of research and reviewed articles in various educational books, journals, and databases. The review of this study is organized around the following sub-headings:

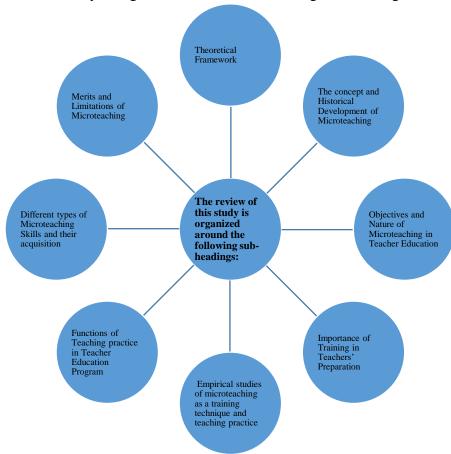


Figure 3: The review of this study is organized around the following sub-headings Source: Authors field work.2022

THEORETICAL FRAMEWORK

Learning can be described as a change in behavior. Atherton (2013) claimed that education and training are professional rather than academic disciplines that are full of contaminations and assumptions. Therefore, there needs to be a careful selection of how theories of learning are approached, adapted, and developed for educational training. According to Kharbach (2013), a learning theory is a set of concepts on how people learn. It is an investigation of the strategies and the underlying cognitive processes that are involved in learning. Learning theories describe how learners absorb, process, and retain information during learning.

Since the introduction of Western education over a century ago, the Nigerian education system can hardly be described as healthy. (Leib Sutcher et al., 2019)It is a system that has increasingly been weighed down by myriads of problems. Inadequate funding political instability erratic political decisions and policies, inadequate planning, and sometimes outright painlessness have been the bane of educational development in this country. One of the manifestations of the effects of these problems on the education system is the wide gap between teacher demand and supply which has become a continuous problem over the years. As noted by (Leib Sutcher et al., 2019), the quantity and quality of teachers supplied to the education system has never been adequate right from inception. The Ashby Commission of 1960 lamented the low quality and quantity of Nigerian teachers and recommended the training of "well-qualified, non-graduate teachers"(Buckner & Zhang, 2021) which eventually led to what is now called colleges of education which produce teachers. Even in the nineteen nineties, teacher demand continued to outnumber teacher supply both in terms of quantity and quality.

Recently, Igwe, Uzoka, and Rufai (2013) lamented the hues and cries of the populace over the continuous poor performance of learners in Nigeria. The populace claimed that the educational situation in the country has been blamed predominantly on the poor teachers; teaching skills and methods, teachers' poor attitude to work, and lack of teachers' competence. Adeyanju (2013) submitted that many teachers lack demonstrable competence in knowledge and essential pedagogical skills such as lesson plans and activity-based learner-centered teaching approaches. These result in a lack of proper and thorough grasp of concepts by learners due to their teachers' poor preparation. All these rest on poor teachers' preparation during training which is supposed to be taken care of by teacher education.

Evolution of Pedagogical Approaches in Architecture

Recent scholarship emphasizes the dynamic nature of architectural education and the evolving role of educators.(Moamar & Tahani, 2022) underscores the shift from traditional didactic teaching models to more interactive and student-centered

approaches. The adaptability of architecture pedagogy is highlighted, emphasizing the need for educators to continually refine their teaching skills to align with contemporary educational paradigms.

Importance of Set Induction in Educational Settings

The foundational concept of set induction, as proposed by (Donmuş Kaya & Akpinar, 2021), remains pivotal in creating an effective learning environment. Set induction involves capturing students' attention, establishing a purpose for the lesson, and activating prior knowledge. In architecture education, this phase is particularly critical, setting the tone for creative exploration and problem-solving inherent to the discipline.

Pedagogical Frameworks and Strategies

John & Catherine, (2011) contribute to the literature by presenting constructive alignment as a pedagogical framework. This framework emphasizes the alignment of learning outcomes, teaching methods, and assessments. The application of such frameworks to set induction in architecture education can enhance the coherence and effectiveness of teaching strategies.

Challenges in Architectural Education

Steinitz, (2020) as cited by (Noble,2015) discusses the challenges faced by educators in architecture, including the integration of emerging technologies and the interdisciplinary nature of the discipline. These challenges accentuate the importance of robust training programs that equip lecturers with not only subject-specific knowledge but also versatile pedagogical skills, especially in the context of set induction.

Educator Professional Development

Shulman (2012) (Lee, 1990) introduces the concept of pedagogical content knowledge (PCK), emphasizing the importance of educators' understanding of both subject matter and effective teaching methods. In the realm of architectural education, this suggests that effective set induction requires a nuanced blend of architectural expertise and pedagogical skills.

Polytechnic Context in Architectural Education

The specific challenges and opportunities within polytechnic settings merit attention. These institutions often cater to diverse student populations with varying levels of prior knowledge and experience. In summary, the literature reviewed underscores the dynamic nature of architectural education, the centrality of effective teaching practices, and the critical role of set induction in creating engaging learning

experiences. The synthesis of these perspectives provides a foundation for the current research, which aims to bridge gaps in existing training programs and enhance the teaching skills of architecture lecturers in polytechnic settings.

RESEARCH METHODOLOGY INTRODUCTION

This section presents the research design, types and sources of data, instrument for data collection, methods of data collection, sampling design, and population and methods of data analysis that were used for this study.

RESEARCH DESIGN

There are three fundamental types of research design (Survey, Experimental, and Expost facto Research designs). The descriptive survey design was adopted for this study. Descriptive research is designed to describe the characteristics or behaviors of a particular population systematically and accurately. This design was chosen because respondents were asked their opinions, and the design suits this need.

TYPES OF DATA

The study collected both quantitative and qualitative data (set induction skill records, questionnaire administration, in-depth interview, and participant observation) and archival research shall be used to clarify certain issues arising from qualitative data(s). It is recognized that mixed method (quantitative and qualitative analyses) reveals more outstanding results and research outcome (Creswell, 1994).

SAMPLE DESIGN AND POPULATION

A purposive sampling technique was adopted for this study. Since most of the data will be generated from Architecture Lecturers in selected Polytechnics in Northern Nigeria, they were purposively selected as the dispensers of in-set induction skill teachers, who according to Nachmias and Nachmias (2009) are considered to have intimate knowledge or judgment of their local environment, these data were obtained from lecturers, architects, students of architecture, staffs of NBTE.

POPULATION

A total of 120 questionnaires were administered to lecturers of the selected polytechnics, out of which 80 responded to the questionnaire, and NBTE were interviewed.

DESIGN OF INSTRUMENT FOR DATA COLLECTION

Data for the study was collected from the respondents through the use of the questionnaire. The questionnaire contained relevant questions based on each of the

objectives of the study. Only 80 out of the 120 Academic staff of Architecture Lecturers in selected Polytechnics in Northern Nigeria, were administered the questionnaire. The questionnaire is structured into three sections based on the sequence of the research questions which served as a guide for the study.

The response options for the questionnaire were according to a modified Likert scale of four (4) point rating scale of Very Aware (1), Aware (2), Slightly Aware (3) Not Aware (4) and to ascertain skill levels of the response options were based on: Very skilled at all - (1); Skilled - (2); Low Skill - (3); No skilled - (4).

NOTES

Variables with 2.5 and above will be considered to represent AWARE while variables less than 2.5 will represent UNAWARE.

The following mean range was used to arrive at the mean of the individual indicators and interpretation:

MEAN RANGE	RESPONSE MODE	INTERPRETATION
3.26-4.00	Very Aware	Very High
2.51-3.25	Aware	High
1.76-2.50	Slightly Aware	Low
1.00-1.75	Not Aware	Very Low

Observation notes were used for all observations arising from participant observer data while the interview schedule was prepared to collect data from lecturers, students, and NBTE staff.

METHOD AND TECHNIQUES OF DATA ANALYSIS

The collected data shall be manually coded, entered, and analyzed using SPSS software version 16. To assess the relative importance of the in-set induction skills for teaching the Architecture Lecturers in selected Polytechnics in Northern Nigeria, the following statistical tools were used to summarize and compress the data:

Descriptive statistics (such as mean, frequency, standard deviation percentages, and tables,) were used to identify the socio-economic characteristics of respondents, behavior, perception, and understanding of in-set induction skills in the Architecture Lecturers in selected Polytechnics in Northern Nigeria

VALIDITY AND RELIABILITY OF THE INSTRUMENT

In determining the validity of the instrument, a total of 5 lecturers in the nonparticipating Department of Architecture of which Nuhu Bamalli Polytechnic was chosen for the pre-testing of the questionnaire. In pre-testing the instrument, it will be administered twice to the sample subjects. The responses would be thereafter correlated to determine its reliability coefficient. A co-efficient of a minimum of 0.5 using Pearson's Product Moment Correlation statistics, will show that the instrument is reliable.

MARGIN OF ERROR

The researcher shall allow room for a 5% margin of error at a 0.05 level of significance, with consideration to the following threats to validity measures will also be indicated to minimize if not eradicate the threats to the validity of the findings of this study:

RESULTS AND PRESENTATION OF DATA INTRODUCTION

This section focused on the discussion of the results of the field survey data following their presentation and analysis. The use of descriptive statistics, such as mean percentages. Tables, frequencies, and standard deviation are employed.

Research Question 1

What are the Socioeconomic and demographic characteristics and level of awareness of the basic components and perception of the in-set Induction skills?

Table 2. : Socio-economic characteristics of respondents

NO	COMPONENTS	FREQUENCY	%
1	Designation		
	Chief Lecturer	20	17.5
	Principal Lecturer	23	20
	Senior lecturer	20	37.5
	Lecturer	13	20
	Others	4	5.0
	TOTAL	80	100
2	Age		
	25-35yrs	15	12.5
	36-46yrs	25	37.5
	47-57yrs	20	25
	58-65yrs	20	25
	TOTAL	80	100
3	Sex		
	Male	55	75

	female	25	25
	TOTAL	80	100%
4	Teaching Experience		
	1-8yrs	10	12.5
	9-16yrs	15	25
	17-24yrs	35	37.5
	25-35yrs	20	25
	TOTAL	80	100%
5	Qualification		
	HND	13	16.25
	BSC	35	43.75
	MSC	20	25
	PhD	12	15
	TOTAL	80	100%
6	Pre-service training		
	Trained	30	25
	Untrained	50	75
	TOTAL	80	100%
7	Staff Development		
	Yes	20	25
	No	60	75
	TOTAL	80	100%

Source: Authors field work.2022

The table 2. shows the socioeconomic and demographic, characteristics of respondents on the degree of awareness of the basic components and perception of Set Induction skills Architecture Lecturers in selected Polytechnics in Northern Nigeria, only 25% out of 100% are trained 75% of the populace are untrained.

Research Question 2

What is the level of skills possessed by Lecturers in the application of the various components of Set Induction?

Table 3: level of awareness of set induction

NO	COMPONENTS	FREQUENCY	%
1	Very aware	5	6.25
2	Aware	15	18.75
3	Slightly aware	20	25
4	Not aware	40	50



Source: Authors field work.2022

TABLE 3 shows that 50% of Architecture Lecturers in selected Polytechnics in Northern Nigeria indicate that they are not aware of the concept of set induction and its application as an instructional technique very aware and aware indicates 25% of the populace. Because of the general objectives of education which Gerald (1994) refers to as encompassing both the teaching and learning of knowledge, proper conduct, and technical competency, the need for enlightenment and education on set induction techniques among lecturers is very important.

Research Question 3

What are the best practices and recommendations for enhancing the training and teaching skills of architecture lecturers in Northern Nigeria?

Table 5: set induction teaching skills.

S/N	COMPONENTS	V A 1	A 2	S A 3	NA 4	MI AN		REMARK S
		l						Unaware
1	The current level of awareness of set induction	22	12	6	0	1.6	6.32	Unaware
2	What is the relevance of set induction skills in teaching	20	14	4	2	1.7	6.32	Unaware
3	Areas of set induction	20	15	3	2	1.6	6.32	Unaware
4	Awareness of the meaning of set induction	18	12	6	4	1.8 5	6.32	Unaware
5	Awareness of the definition of set induction	18	12	7	3	1.8 8	6.32	Unaware
6	Awareness of the objectives and purposes of set induction	19	13	8	0	1.73	6.32	Unaware
7	Awareness of components, planning stage of set induction	20	10	9	1	1.78	6.32	Unaware
8	Knowledge of the stages of set induction	21	9	7	5	2.0	6.32	Unaware
9	Use of set induction in the classroom	19	16	3	2	1.7	6.32	Unaware
10	Different types of set induction skills and their practice	21	13	5	1	1.65	6.32	Unaware
11	Does set induction planning waste time	17	13	7	3	1.9	6.32	Unaware
12	Difficulty in preparing set induction lesson plans.	21	10	6	3	1.78	6.32	Unaware
13	Availability of guidance in set induction lesson plans	18	13	8	1	1.8	6.32	Unaware
14	Sufficiency of Planning time in set induction	14	2 0	6	0	1.8	6.32	Unaware
15	Awareness of the Importance of feedback in set induction	22	10	8	0	1.65	6.32	Unaware
16	Need for Demonstration in set induction	25	8	5	2	1.65	6.32	Unaware
17	Sufficiency of Demonstrations in set induction	20	14	5	1	1.6 8	6.32	Unaware

18	Audio-visual feedback in set induction	18	14	5	3	1.8	6.32	Unaware
						3		

Source: Authors field work.2022

Table 5: shows the "mean" on components 1-5, 1.6, 1.7 1.85, and 1.88, respectively, awareness and knowledge of the basic component of set induction to teaching staff are very insufficient, while the use of set induction and micro-teaching instruction in the classroom is inefficiency because it is time wasted for preparing of the micro-teaching plan, insufficiencies of planning time, and lack of time and equipment's to demonstrate the micro-teaching skills.

The main score of individual components reveals that most of the lecturers are not aware of the micro-teaching set induction skills.

DISCUSSIONS OF RESULT

Lecturers in Architecture Lecturers in selected Polytechnics in Northern Nigeria are largely unaware of the principles and processes of set induction as a teaching technique.

Lecturer do not possess the set induction skills and application of its components as part of their everyday instructional tasks.

RESULT FINDINGS

The implication of the findings shows that lecturers in the Architecture Lecturers in selected Polytechnics in Northern Nigeria are not properly aware of Set Induction as a teaching technique and do not possess the skills necessary for its successful utilization. The study however showed that in their normal lessons, some of the aspects of Set Induction are inadvertently used by the lecturers. Even in such cases, the full benefits of such a systematic technique are not fully achieved.

This finding agrees with Onoh (1990) who stressed that as the world of work changes, the nation also does, to review its commitment to related training to prepare a workforce that is scientifically literate and technologically competent. Similarly, (Teresa & Sara, 2020) stated that products of technical colleges and polytechnics are very good in the theoretical aspect of their training.

CONCLUSION AND RECOMMENDATIONS

The importance of education and its mode of delivery are reflected by the impact an educated populace can have on a nation and its development. The successful delivery of various concepts to learners depends on the general realization of teaching as a profession that requires specialized knowledge and skills. Indeed, teachers today have evolved from transmitters of knowledge to a role of leading learning and teaching-

learning methods. The need remains for major investment in teacher education by developing their full potential in teaching methods and techniques. The success of the entire educational process hinges on the effective implementation of such policies.

It also depends upon certain characteristics of teachers, the teacher educators, the environment as well as Methods of instruction. In congruence with Awoyemi (1986), The identification of these characteristics may be necessary if effective teacher training programs are to be evolved. Lawal, Maduekwe, Ikonta & Adeosun, (2010) summed up the idea that "the educational system will not be modernized until the whole system is drastically overhauled, stimulated by pedagogical research, made intellectually richer, more challenging and extended beyond pre-service training into a system of continuous professional renewal and career development for all teachers and lecturers.

The use of exemplification was good for the requirement and relevance to the topic. The skill of stimulus variation which included change in speech pattern, non-discursive communication, interaction style, pauses, focusing, and promoting oral communication in the presentation was skillfully used.

RECOMMENDATIONS

From the findings of the study, discussions, and the implications of the findings, the following recommendations are made:

Departments of Architecture should use their conference and seminar grants to arrange for the training of its lecturers in microteaching skills and specifically set induction techniques.

The Selected Polytechnic management should utilize a staff development program for further training of lecturers in set induction and modern teaching techniques.

Selected Polytechnic management should initiate a periodic teaching performance assessment exercise for lecturers by receiving feedback from learners and assessment experts.

The current policy of requiring lecturers to enroll for the Postgraduate Diploma course in education should be more vigorously enforced by the Kaduna Polytechnic management.

All promotions and new employment policies in the polytechnic should require certified competence in teaching techniques and principles as a pre-requisite.

REFERENCE

Adeyanju, T.K. (2013). Quality Teacher in Every Classroom: Prospects and Challenges; A Pre-Convocation Guest Lecture at the Maiden Convocation Ceremony for the Award of Nigeria Certificate in Education (NCE) and Conferment of Fellowship; FCT College of Education, Zuba-Abuja.

Avijit, D. and N. N. (2022). Technological Competencies of Teachers in Teaching Learning Process and the Librarians' Role to Enhance the Technological Skills: A Study . *E-Journal*.

Awoyemi, M.O. (1986). Subject methodology II, Ilorin, Woye Press Ltd.

- Buckner, E., & Zhang, Y. (2021). The quantity-quality tradeoff: a cross-national, longitudinal analysis of national student-faculty ratios in higher education. *Springer Nature Open Access*, 82, 39–60.
- Donmuş Kaya, V., & Akpinar, B. (2021). Effects of the Online Learning Environment Designed with Instruction Activities Model on Academic Achievements, Attitudes, and Retention of Learning. *Shanlax International Journal of Education*, 9(4), 59–77. https://doi.org/10.34293/education.v9i4.4062
- Eggen Paul, D. K. (2020). *strategies and models for teachers; teaching content and thinking skills* (6th ed.). Gerald, A. (1994). The Evolution of Education. London: Cassell Press.
- Ghafoor, A., Sumaira, K., Almas, K., & Kayani, S. (2012). An Exploratory Study of Microteaching as an Effective Technology. International Journal of Business and Social Science Vol. 3 No. 4
- Igwe,R.O., Uzoka, N.E. &Rufai, S.A. (2013). Reflective Effects of Microteaching and Field Experiences on Preservice Teachers in Nigeria: Asean Journal of Teaching in Higher Education
- Iqbal, M. H., Siddiqie, S. A., & Mazid, M. A. (2021). Rethinking theories of lesson plan for effective teaching and learning. Social Sciences and Humanities Open, 4(1). https://doi.org/10.1016/j.ssaho.2021.100172
- John, B., & Catherine, T. (2011). Teaching for Quality Learning at University. McGraw-Hill Education (UK).
- Lawal O.O, Maduekwe, A.N, Ikonta, N.R & Adeosun, A.O (2010) ESL pre-service teachers' Views of teaching practice supervision and assessment in Nigeria. Sino-Us English Teaching.
- Lee, S. (1990). Pedagogical content knowledge in teacher education. . 19(2), 4–11.
- Leib Sutcher, Linda, D.-H., & Desiree, C.-T. (2019). Understanding Teacher Shortages: An Analysis of Teacher Supply and Demand in the United States. A Peer-Reviewed, Independent, Open Access, Multilingual Journal, 27(35).
- Magill, C., Cronin, C., Walsh, B., Polman, R., & Rudd, J. (2023). Teaching efficacy of undergraduate PE students; what are the key predictors and what can PE educators learn from this? *Frontiers in Education*, 8. https://doi.org/10.3389/feduc.2023.1166613
- Mastrokoukou, S., Kaliris, A., Donche, V., Chauliac, M., Karagiannopoulou, E., Christodoulides, P., & Longobardi, C. (2022). Rediscovering Teaching in University: A Scoping Review of Teacher Effectiveness in Higher Education. In *Frontiers in Education* (Vol. 7). Frontiers Media S.A. https://doi.org/10.3389/feduc.2022.861458
- Moamar, G., & Tahani, M. (2022). Promoting a Pedagogical Shift from Didactic Teacher-Centered to Participatory Student-Centered Learning by Harnessing the Portability and Versatility of Mobile Technology. *Scientific Research*, 10(2).
- Nachmias, C. F. and Nachmias, D. (2009): Research Methods in the social sciences (5th edition) Reprinted by Hodder Education, Hachette UK, Company, England.
- Sneha, S., D Y Patil, & Akurdi, P. (2016). Students Induction Programme: An Emerging Trend of Learning in Architecture Pedagogy. *International Journal of Research in Civil Engineering, Architecture & Design*, 4(1).
- Steinitz, C. (2020). On landscape architecture education and professional practice and their future challenges. *Land*, 9(7). https://doi.org/10.3390/land9070228