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RESEARCH ARTICLE

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## Exploring Undergraduate Technical Education Students' Industrial Internship Experience: A Narrative Approach

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### Abstract

This study explored undergraduate technical education students' industrial internship experience. Three research questions guided the study. Qualitative design using narrative approach was adopted. The population for this study was 174. However, as it is customary with a qualitative study, a total of 10 final year undergraduate technical education students drawn from the five Universities offering technical education programme participated in the study. Interview was used as instrument for data collection. Face-to-face, phone calls, whatsapp were the tools used for the interview. Conversational analysis was used in analyzing the data. Findings from the study indicated that industrial internship plays a key role in the overall skill development programme of undergraduate technical education students through robust and well-coordinated pre-placement preparation, learning experiences and employers support.

*Keywords: Technical Education, Students, Industrial Internship, Experience*

### Introduction

In Nigerian Universities, industrial internship has been identified as an important component of an academic curriculum especially in the areas of technical and vocational education (Uyah, 2004). Variety of terminologies such as work-integrated learning (WIL) (Freudenberg, Brimble & Cameron, 2011), workplace learning (Smith, 2003), and Students Work Experience Scheme (SIWES) (Ukwueze, 2011) have often been used and sometimes interchangeably to refer to internship programmes. This is because the similarities and differences of these terms have not been determined (Streumer & Kho, 2006). An internship is a programme designed to enable undergraduate students acquire field work experience relative to skills, knowledge and attitude so as to incorporate them into their formal education in a university through a well-planned and supervised work in industrial establishments (Renganathan, Abdul Karim & Li, 2011). It is therefore, a programme that tries to combine what students learned on campus-based setting with real-work setting.

The knowledge and experience acquired from classroom-settings may differ significantly from that acquired during industrial internships; while universities offer formal and well-structured education under the direction of teachers and laboratory staff, internship programme appears to be more of informal or incidental learning (Johnson, 2000). In addition to that, campus-based instructions are usually carried out in uniform manner for all students as against what is obtained during internship where the learning environment differs for each student (Agarwal and Gupta, 2008). This individualistic and flexible learning environment appears to have the potentials to bridge the skills gap.

The evolution of internship programme in Nigeria stem out of the identified gap between the theoretical knowledge acquired by undergraduate students and the practical skills needed by the industries (Omonijo, Anyaegbunam, Adeleke, Nnatu, Ejoh, Oluwunmi, Olowookere, Agubo, 2019; Sodipo, 2014). This anomaly sometimes requires a new employee to go into some sort of retraining courses before starting the real job (Asuquo & Agboola, 2014). Consequently, the National Universities Commission (NUC) emphasis on the need for university technical education students' to compulsorily undertake a minimum of six months industrial internship programme during the course of their studies (Auta, 2017; Eniola-Arigbe, Arigbe & Awodiji, 2022). That is one of the fundamental requirements for the programme to be accredited by the NUC.

Thus, it appears all universities and their affiliated institutions offering technical education programme had complied with the regulatory requirement of internship programmes for their students (Muhamamadu, 2017); however, the mode of operation of the internship programme may differ across the respective institutions. For instance, with regards to timing for the programme undertaken, some institutions offer the programme in the second semester of their fourth year, while others offer the programme in the second semester of their third year (Auta, 2016). With respect to the credit units allotted to the exercise, there exist a significant variation, while some institution assigned six credit units, others assigned 12 credit units with zero grade points (Auta, 2017).

The Internship programme in Nigeria is being managed by three key stakeholders- Universities, Employers and the Industrial Training Fund (ITF). The universities provide the students with the basic theoretical knowledge and skills needed to function in the industry (Asuquo & Agboola, 2014). The employers on the other hand, provide a platform for the students to acquire field work experience in relation to skills, knowledge and attitude in order to galvanize them with their formal education in a university (Ukwueze, 2011; Binuomote & Ayoola, 2021). However, ITF is a statutory agency established with a mandate to coordinate and provide funding for the smooth operation of the internship programme through payment of stipends to the interns (Asikogu, & Okopu, 2008). The coming together of these stakeholders in a seamless manner will provide a spring board for the success of the internship programme.

Hence, the realization of the goals of internship programme undertaken by technical education students and the burning desire of the stakeholders to fine-tune the programme may not be achieved without a novel university-industry relationship feedback from the participants (Muhamamadu, 2017). The outcome of which would enable the university to anticipate the shifts in the industry trends and obtain industry feedback on student performance and program impact that may be useful during curriculum modifications.

Several studies on students' industrial internship experience have been done in the past. Renganathan, Abdul Karim and Li (2011) for instance reported that, Malaysian students rated industrial internship programme favorably and the learning undertaken through practical experience during the internship as positively. They also identified other factors related to the organizers' operational and administrative efforts and the role played by the host company as a key in determining the success of the industrial internship programme. In a study conducted by Najid, Osman, Omar, Mat, Kofli, Jamil and Jamaluddin (2012), the results show that statistical difference exist ( $p < 0.05$ ) between Engineering and Built Environment students' perception before and after the industrial training. The study also proved that the industrial training program is merely beneficial to the students in terms of engineering education improvement and engineering profession. However, none of the studies reviewed by the researcher specifically explored undergraduate technical education students' industrial internship experience from any Nigerian university. This calls for the need to explore undergraduate technical education students' industrial internship experience from Nigerian Universities.

The study was guided by the following specific questions: What are the perceptions of technical education students on industrial internship programme in relation to:

1. Pre-placement preparation by their respective universities?
2. Learning experiences (knowledge, skills and attitude) they acquired during the industrial internship programme?
3. Supports extended to them by their respective employers?

## Methodology

In this study, qualitative design using narrative approach was adopted. According to Riessman (2008) it is a design in which the researcher studies the lives trajectory of an individual or group of people in relation to the problem under study in order to identify and extract the data of interest for evaluation. In the view of Sandelowski (2001) it is a design which focuses mainly on the desire to enquire in order to understand humans', experience and interpret such behavior on the social world. It can also be seen as a form of data-driven social inquiry utilizing a flexible and relatively unstructured data in order to study a number of naturally occurring cases in greater detail, and to utilize verbal in place of statistical forms of approach to arrive at a conclusion (Hammersley, 2013). The choice of this design is informed by the fact that it provides a dynamic approach whereby the researcher is at liberty to ask follow up questions based on the answers given by the respondents which assisted greatly in enriching the conversation around the problem under study.

## Participants

The population for this study was 174. However, as it is customary with a qualitative study, a total of 10 final year undergraduate technical education students drawn from the five Universities offering technical education programme participated in the study. These participants were purposely selected because as final year students,

they must have compulsorily participated in the Internship programme. They were also chosen because they were designated as “class representatives” and “Assistant Class representative” respectively by their respective class members. Table 1 shows the demographic distribution of the participants.

Table 1: Demographic Distribution of the Participants

Institution	N
Enugu State University of Science and Technology	2
University of Nigeria Nsukka	2
Ebonyi State University Abakaliki	2
Michael Okpara University of Agriculture Umudike	2
Nnamdi Azikiwe University Awka	2
Total	10

The participants were first contacted through their respective departmental heads except in one institution where the author is currently a faculty member. In that institution, the author contacted the participants directly. The participants’ phone numbers were obtained and the following text message was sent to each of them:

Hello, I am conducting a study on your experience during IT, I will like to have a conversation with you if you don’t mind. Your confidentiality is assured. Let me know when you will be ready. Thanks

All the eight participants from those institutions responded at different times but on the same day with the assurance that they were ready to participate in the exercise.

### Data Collection and Management

In this study interview was used as instrument for data collection. The participants who were undergraduate technical education students were asked to schedule for interview with the researcher and/or his assistants. Each round of interview with a participant lasted between thirty minutes to one hour. Face-to-face, phone calls, whatsapp were the tools used for the interview. Table 2 shows the distribution of the tools used for the interview.

Table 2: Distribution of tools used for interviews

S/N	Interview Tool	N
1	Face-to-face	3
2	Phone Calls	5
3	Whatsapp	2
	Total	10

The interview questions were structured around the three research questions, follow up questions were raised based on the responses obtained in order to deepen the data collected for comprehensiveness. An interview summary form was completed immediately after the completion of each round of interview. The form was subsequently attached to the transcript in order to remind the researcher about the contact especially during data analysis. As suggested by Dawson (2009), the interview summary form includes “practical details about the time and place, the participants, the duration of the interview, and details about the content and emerging themes”.

### Data Analysis

Conversational analysis which is sometimes referred to as discourse analysis (Dawson, 2009) was used in analyzing the data. In this study, we look at the patterns of speech with respect to each research question under consideration; for instance, how the respondents talked about a particular subject, what metaphors they used and how they take turns in conversation among others. The respondents’ speech were viewed as an action rather than describing a specific state of affairs. Consequently, the dominant subjects in the conversations were identified and isolated to form the dominant issues in line with the research question under consideration for detailed conversation in the study.

## Results and Discussions

The results of the qualitative data on technical education students’ experience during industrial internship are presented in this section in line with the research questions. The discussions of the findings that emerged are also presented under this section.

### Pre-placement preparation by their respective universities

The participants admitted that their respective institutions usually put up some definite pre-placement programmes in order to ensure smooth take-off of the internship programme. P1, P3, and P2 described their experiences towards pre-placement preparation by their respective institutions thus:

“In our university, our SIWES office usually send notice to our departments to forward the names if those without plenty carry-overs, because if you have many carry-overs, they will not send your name. So, automatically, you will not go for SIWES, you will have to wait till the coming year when you might have cleared your CO” P1

“We normally register with SIWES Office by paying certain amount to enable the office issue to us all the relevant documents such as Form 8 and Log book which we normally fill during the internship in order to document our experiences” P3

“Our institution organized a kind of pre-internship workshop to educate us on what is required of us during the programme. In fact, people from ITF are usually invited to talk to us on the “does and don’ts” of the programme. We are usually availed the opportunity to ask questions on areas we don’t understand. It’s unfortunate that some of us don’t take the orientation programme with all the seriousness it deserves” P2

The positive feedbacks from the students with regards to the pre-placement preparation imply that, the interns producing institution (universities) have a well-designed programme gears towards ensuring the successful conduct of the exercise. This was corroborated (Omonijo, Anyaegbunam, Adeleke, Nnatu, Ejoh, Oluwunmi, Olowookere, Agubo (2019) who observed that inadequate planning has been an impediment to the success of most programmes. According to the authors, a carefully planned exercise has the potentials of getting a nearly 100% success rate. Though, some of the prospective interns may not have taken the orientation exercise with all seriousness (Muhamamadu, 2017), that act of negligence on the part of the students does not in any way diminish the inherent benefit that shall accrue from it.

### **Learning experiences (knowledge, skills and attitude) they acquired during the industrial internship programme**

Data obtained from the interview indicate the participants have acquired to a certain extent some learning experiences during the internship. They were able to put into practice the knowledge and skills they have acquired in the class in the real work environment. P5 and P7 shared their experiences as follows:

“...we were taught in our school how to conduct laboratory test on cement to determine its suitability for concrete production, but we don’t have the required equipment to conduct such experiment. I was happy and excited when I found myself in the midst of our Lab staff conducting cement test. It was a wonderful experience” P5

“As an automobile technologist in training, I have a strong desire to play an active role in the industry, but you know most of our institutions lack adequate facilities to train us. That six months industrial training afforded me the opportunity to see how some of the things we were unable to practicalize (sic) in school are done practically” P7

The participants also reported that they have engrained certain attitudinal changes especially with regards to human relationship in a work environment. According to them:

“...it is important to emphasize here that my attitude to certain things had to change the moment I was paired with one of the lathe machine operators in the shop floor. I always look down on these factory workers, unknown to me these guys are the engine-room of most of these industries. They may not have “big” certificates; they may not speak good English, but they have something “upstairs”” P9

“I admire the work ethics of the company I worked. The other day I was sent out of the shop for improper dressing, a colleague was locked-out for coming late, one of us was quarried for not responding to mails an hour after it was sent” P6

“My supervisor behaves like a typical “slave driver”. He doesn’t take excuse for failure; I have learnt to be diligent in whatever I do from him and I will remain grateful to him for that singular training he extended to me” P4

The diverse views expressed by the respective participants clearly indicated that internship programme provides a credible means for them to acquire hands-on experience in their respective areas of specializations. It also provides a vehicle for inculcating in them the much needed “soft skills” that will assist them greatly in the work environment. These findings are consistent with Auta and Onwusuru (2022) who reported that the personality skills, teamwork skills are some of the essential skills needed to excel in the industry.

### **Supports extended to them by their respective employers**

Findings from the study indicated that employers extend some level of support to the interns during and even after the programme. A summary of their experiences are presented below:

“My office pays interns some stipends at the end of the month to assist us in solving some of our problems” P8

“In our organization, we have a canteen where we normally eat. Both Interns and tenured employees have access to the canteen at no cost” P3

“Our medical center is well equipped to cater for our health needs during our internship. You don’t have to pay, the company got you covered. It was indeed a worthwhile experience” P1

“The work environment in our office is relatively ok. The moment you report, they provide you with “overall”, helmet, gloves and other protective clothing. They don’t allow “overtime”, since we work on machines, they don’t want fatigue to set in to avoid injury” P5

“It gladdens my heart when my boss said on the eve of my departure that he will always be ready to write recommendation letter for me if the need arises” P2

Despite the laudable feedbacks from the participants, some reported unpleasant experiences with regards to employer supports:

“I was shocked when a company asked me to pay before I will be admitted as an intern. They don’t even recognize the need for institution-employer collaboration in manpower development as we were taught in one of our classes in school. I had to go elsewhere” P9

“Some of the permanent staff looks down on us as if we were there to take-over their jobs” P7

This finding is an indication of the premium regards employers of labour attached to interns and the internship programme as a whole. By extending support to them, employers were determined to ensure that the overall objective of the programme is being achieved. This support will naturally spur the interns to remain focus in their desire to be exposed to the hands-on experience in a work environment (Asikogu & Okopu, 2008).

The pocket of unpleasant experience reported by the participants is not inconsistent with our normal lives where disputes are bound to happen (Ukwueze, 2011). However, with strong commitments from both the interns, employees and the management such disputes are not insurmountable for the overall success of the programme.

### Conclusions and Suggestion for further Research

This study explored undergraduate technical education students’ industrial internship experience from Nigerian. Findings from the study indicated that industrial internship plays a key role in the overall skill development programme of undergraduate technical education students through robust and well-coordinated pre-placement preparation, learning experiences and employers support. It can therefore be concluded that industrial internship is a valuable exercise that has been complementing the in-class learning.

However, the researcher recognized certain limitations which may limit the generalization of the findings that emerged from the study. The area covered by this study was south-eastern Nigeria which is a fragment of the six geo-political zones of Nigeria.

The use of qualitative design through narrative approach prevented the use of statistical tools in the data analysis; hence the analysis may be prone to unintentional biases. Overall, the study provides a indicator on the merits and the success of industrial internship in manpower development especially as it affects technical education programme. Further studies using an expanded area of coverage and probably adopting a mixed method approach will further refined the findings that emerged from this study and should be pursuit.

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