

# **Managing the Challenges of Industrial Work Experience Scheme in Developing Workforce among the Youths in South-West Nigeria**

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## **Abstract**

The heart of technical education is the industrial work experience scheme, it has the advantage of preparing youth for workforce which will lead to rapid development of the country; work experience develops confidence, personality and increased awareness of one's responsibility as youth in the community by involving in actual work situations. Industrial work experience scheme is not without challenges which arise from weak co-ordination, poor supervision and low incentive (monetary). Therefore, this study was designed to determine the challenges of industrial work experience scheme in developing the workforce among youths in south west Nigeria. A survey design was adopted. Two research questions and two hypotheses, tested at .05% level of significance, guided the study. The respondents for the study consisted of 350 technical teachers and their students. Mean and standard deviation were used to answer the research questions, while t-test statistics was employed to test null hypotheses. The findings of the study among others revealed: absence of approved job specification for the courses; inadequate participation of students in skill acquiring project and poor supervision of students. It was recommended that ITF need to embark on an efficient implementation strategy required to achieving objectives of SIWES.

**Key words:** Challenges, Workforce, Industrial Work Experience Scheme and Youths

## **Introduction**

The implication of the recent privatization and investment in the various sectors of Nigeria's economy is that there will be a rising demand for skilled personnel. Also with the industrial development of Nigeria and to achieve Nigeria's vision 20: 2020, there is need for the acquisition of new skills and adaptation of these skills to industrial structure. Okorie (2000) observed that most Nigerian educational institutions of learning do not provide their students with adequate training in skills that will help them fit for productive work. He further explained that those who lack sufficient skills live on the subsistence level, and often out of desperation and frustration, constitute a nuisance to the society. It therefore, stands to reason that for education to be meaningful, functional and relevant to the demands of the present-day industrial sectors, educational institutions need to give their students a system of education which should be job-oriented, achieved through the combined effort of student's industrial work experience (SIWES) and educational institutions. Students industrial work experience is a skill training programme designed to expose and prepare students in institutions of higher learning for industrial work situations they are likely to meet after graduation (Okorie, 2001). SIWES is a co-operative arrangement between the school and industries for all students undergoing courses that call for exposure in industrial activities during their training in schools. SIWES is financed by the Federal Government of Nigeria and it is operated through the Industrial Training Fund (ITF) in collaboration with National University Commission (NUC), National Board for Technical Education (NBTE), National Commission for Colleges of Education (NCCE) and industries (ITF, 1990). Education of our youths should, therefore, be related to the world of work.

Since the advent of technical institutions, the responsibility of workforce development had always rested on the government's shoulder. Technical institutions were established to prepare youths to earn a living wage by providing them with vocational skills. Therefore, for industrial work experience to give the student the opportunity to utilize some of his/her academic knowledge and skills in a real-life industrial job environment, some aspects of industries routine operations management should be related to his/her academic discipline.

Management in the view of Olaitan, Igbo, Nwachukwu, Onyemachi and Ekong (1999) is a process of planning, organizing, directing, implementing and evaluating input resources for the purpose of producing outputs in the form of goods and services. Resources in organizational management are both human and material. This implies that management involves effective allocation of material inputs and the directing of human resources to production through proper planning and control for the purpose of producing the desired results (UNESCO, 1994). Those who focus specifically on human resource aspect according to Okoye (2002) often view management as guiding and directing people towards the achievement of organizational objectives. Therefore, in the nation's technological development, the workforce is a key human resource that requires effective and sustainable management for achieving the desired results. This effective and sustainable management of industrial work experience for achieving the desired results is not without some challenges.

Pearson (2009) viewed challenges as difficulties in a job or undertaking that is stimulating for one engaged in it. Something that, by its nature or character, serves as a call to battle, a tasking activity or a special effort is a challenge. Challenges in industrial work experience cannot completely be avoided, but can be managed; and if well handled, for the effective functioning of industrial work experience, there will be qualified workers for industries. It is imperative that special training be given to youths to equip them with various skills required

for societal needs. It is these youth with appropriate skills, referred to as workforce, that the society look up to to execute work and render services. Okorie (2000) defines workforce as people who work in factories and industry, generally considered as a body. Okorie further stressed that the workforce of a nation subsumes all the industrial and factory workers as well as any person or group of persons in that nation whose productive work or services satisfy some aspects of human needs. The degree of the satisfaction of any nation's needs determines the development of that nation.

Workforce development is an approach that attempts to enhance the economic stability and prosperity of a nation by focusing on people rather than businesses. It is essentially a human resources strategy. Workforce development evolved from a problem-focused approach, addressing issues such as low-skilled workers or the need for more competent employees in a particular industry or organization. Today workforce development often is seen as a solution to issues of social equity. Workforce development is historically found in two forms: place-based strategies that attempt to address the needs of people living in a particular neighborhood, or sector-based strategies that focus on matching workers' skills to needs in an industry already present in the region, such as healthcare or manufacturing. Some contemporary workforce development programs attempt to combine elements of both approaches, linking employment training with other government programs and community resources to provide twist services. Economic developers use workforce development as a way to increase equity among the population of a state. Rural residents may not have access to equal education opportunities, and workforce development programs can increase their skill level so they can compete with their mates for high-paying jobs. Workforce development has also expanded beyond the notion of employment or vocational training.

The Nigerian youth, given all the benefits of doubt, would want to become self-supporting and independent through his labour. The Nigerian youth wants to work and wants his work to be something more than the means of earning a bare subsistence. The period from eleven to eighteen years of age is one in which the youth is finding himself in the society and setting up standard which will largely determine his future conduct and career. It is important to continue his training both for general civic intelligence and for vocational preparation. For if he is allowed to drift during this period, or if placed in an unwholesome or degrading environment, he may become a dependent or an injurious member of the society. (Osuala, 1999) Youths go to school with the belief that education will enable them to participate in the society. It has been observed from the Nigerians experience that most of our schools and colleges have remained too academic, with major emphasis upon pure knowledge and western cultural values and less stress on technical and vocational training and practical skills. The Nigerian youth needs not only theoretical knowledge but also how to apply that knowledge sufficiently to the solution of the problems of everyday life. Indeed, most skill development present great challenges to the students on the integration of the practical work and theoretical fields, common sense, a good power of observation and courage (Okorie, 2000)

### **Statement of the Problem**

The apparent lack of practical skill among youths has been blamed on the educational system. Olaitan, Igbo, Nwachukwu, Onyemachi and Ekong (1999) state that institutions spend time theorizing at the expense of developing practical skills among youth because of lack of materials and facilities needed to infuse in youths, the necessary skills likely to be required in industries. It then implies that there are gaps between what the youths are exposed to in the

classroom setting and what is actually obtainable in the industrial sector. Skill gap exists between what workers know and what employers need. It was in order to bridge that gap that the industrial work experience scheme was introduced in the education of the youth, a training that involves technical bias. It is assumed that industrial work experience scheme will serve as a tool for youths to develop appropriate work skills and practical work experience. However, the implementation of industrial work experience has faced some challenges, which underlie the need for this study. Based on the fore-going this study intends to determine the: challenges of the industrial work experience scheme in developing the workforce and the component of these challenges of industrial work experience in developing workforce.

### **Research Questions**

1. What are the challenges of the industrial work experience in the development of the workforce among the Nigerian Youths today?
2. What are the components of the challenges of industrial work experience for developing workforce among youth in south west Nigeria?
- 3.

### **Research Hypotheses**

Ho<sub>1</sub>: There will be no significant difference in the mean responses of technical teachers in post-secondary technical institutions and their students (Year-three NCE (technical) and HND Year-one) regarding the challenges of industrial work experience in developing a workforce among the youths in Nigeria.

Ho<sub>2</sub>: There will be no significant difference in the mean responses of technical teachers in post-secondary technical institutions and their students {Year-three NCE (technical) and HND Year-one} regarding the components of the challenges of industrial work experience for developing a workforce among the youths in South-West Nigeria

### **Research Method and Procedures**

#### **Design**

The study employed a survey research design. It focused on the challenges of industrial work experience scheme in developing a workforce among the youths. The study was carried out in federal colleges offering technical vocational courses and polytechnics in South-West Nigeria.

#### **Population**

The population of interest for the study comprises of 320 respondents comprising of 52 technical teachers in post-secondary technical institutions, 128 NCE (technical) students in Year-three and 140 HND-One students who have participated in industrial work experience and their teachers who supervised them during the programme in federal technical institutions in South-West Nigeria. Due to the relative small number of respondents, the entire population was used for the study. No sampling was carried out.

#### **Instrument**

Structured questionnaire was used as instrument to collect data from the respondents. The questionnaire was structured in line with research questions. The instrument consists of four sections: Section A sought information on the personal data of respondents. This section covers items 1-4. Section B deals with Research Question 1, which consists of 13 items that

were used to determine the challenges of industrial work experience in developing a workforce among the youths in Nigeria, Section C deals with Research Question 2, the section consists of 12 items that were used to determine the components of the challenges of industrial work experience for developing a workforce among the youths in South-West Nigeria. A Five-point rating scale was used. Data were analyzed using mean and standard deviation to answer the two research questions and t-test was used to test the null hypotheses at 0.05% level of significance. The bench marks for the acceptance value is 3.50 and above. Any items with mean of 3.50 and above were accepted while any item with mean of 3.49 and below was not accepted. The instrument was evaluated for content and face validity by three experts. The experts include two lecturers from the department of Science and Technology Education, University of Lagos and a director from Industrial Training Fund Ojota, Lagos. However, the validated instrument was trial tested using cronbach alpha and 0.87 internal consistency coefficient was established.

### Method of Data Collection

The assistance of the Head of Department in these institutions was also used in data collection. Through the help of these heads of departments the researchers were able to account for 100% return of the instrument distributed to the respondents.

### Findings

Data were analyzed and results presented in the table below

#### Research Question 1

1. What are the challenges of industrial work experience in developing a workforce among the youths in Nigeria?

#### Research Hypothesis 1

Ho<sub>1</sub>: There will be no significant difference in the mean responses of technical teachers in post-secondary technical institutions and their students (Year-three NCE (technical) and HND-Year-one) regarding the challenges of industrial work experience in developing workforce among youths in Nigeria.

**Table 1**

*Mean and t-test Analysis of the responses of technical teachers in post-secondary TVE institutions and their students (Year-three NCE (technical) and HND Year-one) regarding the challenges of industrial work experience in developing a workforce among the youths in Nigeria. N=320*

S/NO	Challenges of industrial work experience	$\bar{X}_1$	$\bar{X}_2$	$\bar{X}_G$	Remark	t-cal	Sig(2-tailed)
1	Disparities between the curriculum contents and experience exposed to during work experience.	3.78	0.40	3.79	Agree	-0.10	0.91
2	Students not having opportunities to operate modern tools and equipment.	3.85	0.81	3.79	Agree	-0.10	0.91
3	Disruption in school academic calendar make industries to	3.57	0.49	3.59	Agree	-0.17	0.86

	reject students						
4	Time students spent in industrial work experience are not adequate to acquire necessary skills.	3.85	0.80	3.77	Agree	0.80	0.42
5	Feeling of insecurity by students in place of placement.	3.99	0.74	3.89	Agree	0.94	0.34
6	Available equipment, tools and materials are not relevant to students needs.	4.01	0.73	4.01	Agree	0.31	0.75
7	Lack of incentives (monetary) for both staff and their students during work experience.	3.98	0.75	3.62	Agree	0.31	0.75
8	Lack of adequate information on companies that will accept students for work experience.	4.00	0.65	4.00	Agree	0.00	1.00
9	Students fail to fill and submit their form in time for proper placement and assessment.	3.82	0.76	3.81	Agree	0.08	0.93
10	Inadequate supervision of students by both teachers and supervisor during work experience	3.69	0.46	3.68	Agree	0.13	0.89
11	Students are not properly placed for skill acquiring programme in the place of placement.	3.75	0.98	3.79	Agree	0.30	0.75
12	Industries rejecting students for placement.	3.89	0.74	3.83	Agree	0.62	0.53
13	Students' inability to perform tasks given satisfactorily.	4.00	0.65	3.98	Agree	0.13	0.89

Table 1 shows that respondents agreed to all the items listed on the challenges of industrial work experience in developing a workforce among the youths in Nigeria: that there are disparities between the curriculum contents and experience exposed to in industries, students not having opportunities to operate modern tools and equipment; disruption in school academic calendar make industries to reject students; time students spent in industrial work experience is not adequate to acquire necessary skills; feeling of insecurity by students in place of placement; lack of adequate information on companies that will accept student for work experience; inadequate supervision of students by both teachers and supervisors during work experience; industries rejecting students for placement and students' inability to perform tasks given satisfactorily. The result in Table 2 shows that all the items had their calculated significant (2-tailed) values greater than 0.05. This implies that there was no significant mean difference between the responses of technical teachers in post-secondary technical institutions and their students (Year-three NCE (technical) and HND Yea-one) regarding the challenges of industrial work experience in developing a workforce among the youths in Nigeria.

## **Research Question 2**

What are the components of the challenges of industrial work experience for developing a workforce among the youth in South-West Nigeria?

## **Research Hypothesis 2**

Ho<sub>2</sub>: There will be no significant difference in the mean responses of Year-three NCE (technical) and HND Year- one regarding the component challenges of industrial work experience for developing workforce among the youth in South-West Nigeria.

Results, as can be seen in the data presented in Table 2 above, revealed that the mean responses of technical teachers in post-secondary technical institutions and their students (Year-three NCE (technical) and HND Year-one in polytechnics) listed on the components of the challenges of industrial work experience for developing workforce among youth in South-West as: lack of insurance scheme for students and their supervisors; low level and quality of training students received in school and industries; inability of ITF and industries to provide welfare services; lack of accurate data about students and industries that will accept them for placement; supervisors low level of research skills in adaptation of new ideas for training and training given in school is deficient in scope and depth. The result in Table 2 shows that all the items had their calculated significant (2-tailed) values greater than 0.05. This implies that there was no significant mean difference between the responses of technical teachers in post-secondary technical institutions and their students (Year-three NCE (technical) and HND Year-one) regarding the components of the challenges of industrial work experience in developing a workforce among the youths in Nigeria.

**Table 2**

*Mean and t-test Analysis of the responses of technical teachers in post-secondary TVE institutions and their students (Yea- three NCE (technical) and HND Yea- one) regarding the components of the challenges of industrial work experience for developing a workforce among the youth in south west Nigeria N=320*

S/N	Components of the challenges of industrial work experience	$\bar{X}_1$	$\bar{X}_2$	$\bar{X}_G$	Remark	t-cal	Sig(2-tailed)
1	Lack of insurance scheme for students and their supervisors.	4.00	0.65	3.98	Agree	0.13	0.89
2	Low level and quality of training students received in school and industries.	3.79	0.41	3.79	Agree	- 0.10	0.91
3	Level of professional training of supervisors.	3.57	0.49	3.59	Agree	- 0.17	0.86
4	Inability of ITF and industries to provide welfare services.	3.85	0.80	3.77	Agree	0.80	0.42
5	Structure and training of students for industrial work experience.	3.99	0.74	3.89	Agree	0.94	0.34
6	Students level of maturity and experience.	4.04	0.75	4.01	Agree	0.32	0.75
7	Unavailability of modern tools and equipment.	3.93	0.65	3.95	Agree	0.31	0.75
8	Lack of accurate data about students and industries that will accept them for placement.	4.00	0.65	4.00	Agree	0.00	1.00
9	Reluctant cultural practices, mores and taboo toward technical education.	3.82	0.76	3.81	Agree	0.08	0.93
10	Low level of appropriate training facilities	3.69	0.46	3.68	Agree	0.13	0.89
11	Supervisors low level of research skill in adaptation of new ideas for training.	3.81	0.39	3.79	Agree	0.30	0.75
12	Training given in school is deficient in scope and depth.	3.89	0.74	3.83	Agree	0.62	0.53

### Summary of Findings

The following findings emerged from the study based on the data collected and analyzed  
**(1) Challenges of industrial work experience in developing workforce among youths in Nigeria**

**They are:**

1. Disparities between the curriculum contents and experience exposed to during work experience

2. Students not having opportunities to operate modern tools and equipment.
3. Disruption in school academic calendar makes industries to reject students
4. Time students spend in industrial work experience is not adequate to acquire necessary skills
5. Feeling of insecurity by students in the place of placement.
6. Available equipment, tools and materials in schools are not relevant to the students needs.
7. Lack of incentives (monetary) for both staff and their students during work experience.
8. Students fail to fill and submit their forms in time for proper placement and assessment.
9. Lack of adequate information on companies that will accept students for work experience.
10. Inadequate supervision of students by both teachers and supervisors during work experience
11. Students are not properly placed for skill acquiring programmes in the place of placement.
12. Industries rejecting students for placement.
13. Students' inability to perform tasks given satisfactorily.

**(2) Components of the challenges of industrial work experience for developing a workforce among the youth in South-West Nigeria includes the followings:**

1. Lack of insurance scheme for students and their supervisors.
2. Low level and quality of training students received in school and industries.
3. Lack of insurance scheme for students and their supervisors.
4. Level of professional training of supervisors.
5. Inability of ITF and industries to provide welfare services.
6. Structure and training of students for industrial work experience.
7. Students level of maturity and experience.
8. Unavailability of modern tools and equipment.
9. Lack of accurate data about students and industries that will accept them for placement.
10. Low level of appropriate training facilities
11. Supervisors low level of research skill in adaptation of new ideas for training.
12. Training given in school is deficient in scope and depth.

**Discussion of findings**

(1) The findings of this study are substantiated by some conceptual framework of scholars with precedence to research questions and purpose of the study. The data presented in Table 1 provided answers to Research Question and Hypothesis 1, the findings reveal that there are disparities between the curriculum contents and experience exposed to during work experience; students not having opportunities to operate modern tools and equipment; disruption in school academic calendar makes industries to reject students; time students spend in industrial work experience is not adequate to acquire the necessary skills ; feeling of insecurity by the students in place of placement; available equipment, tools and materials in schools are not relevant to students' needs; lack of incentives (monetary) for both staff and their students during work experience; students fail to fill and submit their form in time for proper placement and assessment; lack of adequate information on companies that will accept students for work experience; inadequate supervision of students by both teachers and supervisors during work

experience and students are not properly placed for skill acquiring programmes in the place of placement; industries rejecting students for placement and students' inability to perform tasks given satisfactorily. These findings are in agreement with the view of Olaitan, Igbo, Nwachukwu, Onyemachi and Ekong (1999) who stressed that institutions spend time theorizing at the expense of developing practical skills among the youths because of lack of materials and facilities needed to infuse in youths the needed skills. Also, Okorie (2000) and Olaitan (1996) emphasize the disparities between the curriculum contents and experience exposed to during work experience; students not having opportunities to operate modern tools and equipment; disruption in school academic calendar make industries to reject student and time students spent in industrial work experience are not adequate to acquire necessary skills are some of challenges facing students industrial work experience in developing work force among youths. The result in Table 1 shows that all the items had their calculated significant (2-tailed) values greater than 0.05. This implies that there was no significant mean difference between the responses of technical teachers in post-secondary TVE institutions and their students on the challenges of industrial work experience in developing a workforce among the youths in Nigeria. With this result, the null hypothesis, no significance, was upheld at 0.05 for each item. The implication of this is that these challenges threaten the laudable objective of skill acquiring projects.

By the analysis of Table 2 which provided the answer to Research Question and Hypothesis 2, findings reveal the components of the challenges of industrial work experience for developing a workforce among the youths. Findings indicate that a majority of respondents agree with those components of the challenges of students industrial work experience among others include: lack of insurance scheme for students and their supervisors; low level and quality of training students received in school and industries; level of professional training of supervisors; inability of ITF and industries to provide welfare services. Findings also reveal low level of appropriate training facilities; supervisors' low level of research skills in adaptation of new ideas for training and training given in school is deficient in scope and depth. This finding supports the view of ITF (1990), Okoye (2002) and Olabiyi and Ologban (1999) who from their studies found out that lack of insurance scheme for students and their supervisors; low level and quality of training students received in school and industries; level of professional training of supervisors and inability of ITF and industries to provide welfare services. The result in Table 2 also, shows that all the items had their calculated significant (2-tailed) values greater than 0.05. This implies that there was no significant mean difference between the responses of technical teachers in post-secondary TVE institutions and their students on components of the challenges of industrial work experience in developing a workforce among the youths in Nigeria. With this result, the null hypothesis, no significance, was upheld at 0.05 for each item. The implication of this is that these are the components of the challenges that threaten skill acquiring project.

## **Conclusion**

Given the different views expressed by technical teachers in post-secondary technical institutions and their students who had SIWES experience on the managing of the challenges of students industrial work experience in developing a work force among the youths in Nigeria. It is worthwhile to note that there is no skill-acquiring project that is without challenges, it is imperative that government through ITF and technical institutions in Nigeria should consider a proper implementation of students' industrial work experience scheme programme to reduce these challenges and also improve the workforce for national development and equip the youths in Nigeria with appropriate skills.

## **Recommendations**

- 1.** Federal government should ensure that her policy statement regarding the establishment of students' industrial work experience scheme is effectively implemented and make available the necessary facilities for technical institutions to equip their students as work force.
- 2.** Government should encourage industries to invest in education and training through certification for tax rebates and acceptance of students for placement.
- 3.** Technical teachers should be encouraged to vigorously empower their student with skills by providing facilities and equipment they need to infuse in the students the necessary work force skills.
- 4.** ITF should sanction corporate industries that refuse to accept and fund industrial work experience scheme.

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