

Students' Industrial Work Experience Scheme (Siwes) As Impetus For Academic Performance In Technical And Vocational Education

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Abstract: This study examined the impact of SIWES as a driving force for Technical and Vocational students' training; determined its effect on students' performance competence, skills and practical knowledge needed to function effectively in their various fields of specialization. Three research questions were raised to guide the study. The descriptive research design was used. 100 students representing 20% of 500 students in 400Level in Vocational and Technical Education Department at Adekunle Ajasin University, Akungba-Akoko and Ekiti State University, Ado-Ekiti, Nigeria. The results of the study showed greater influence of SIWES on students' acquisition of practical knowledge and performance competence, which paved way for individual choice of career. SIWES programme should be strengthened through effective collaboration and periodic evaluation by the relevant stakeholders, namely, Government, Institutions of learning and organizations in order to improve the quality of the programme and students' performance competence, and achieve the set objectives for the SIWES programme.

I. INTRODUCTION

Vocational and Technical Education (VTE), is an aspect of education that is designed to impart necessary skills and competencies leading to the production of craftsmen, technicians and technologists who will be enterprising and self-reliant. According to Federal Republic of Nigeria (2013), the main purpose of VTE is to provide skilled manpower in applied sciences, technology and business particularly at craft, advance craft and technical levels; provide the technical knowledge and vocational skills necessary for agricultural, commercial and economic development. However, the above stated objectives have not been properly realized due to long period of systemic neglect on the part of government (Umar & Abdulwahab, 2011).

It is a common knowledge that, no society can achieve any meaningful progress without encouraging its youths to acquire necessary technical and vocational skills. This will enable Nigerian youths to face the challenges of harnessing available resources to meet the need of their societies and

improve on other areas of production. The need for ensuring that the theoretical knowledge acquired by students is matched with their practical knowledge gave room to the establishment of Student Industrial Works Experience Scheme (SIWES). The importance of this scheme in any academic institution cannot be over emphasized. It exposes students to industry based skills necessary for a smooth transition from the classroom to the world.

According to Ekpenyong (2011), one of the principles underlying any industrial work experience scheme for students in institutions of learning is the desire to marry the practical with the theoretical learning which characterizes conventional classroom situations with a view to striking a balance between theory and practice. The author stressed further that it was in realization of this that the Industrial Training Fund (ITF) when it was established, set out to study the extent to which the theoretical knowledge that students in engineering technology and other allied fields in Nigerian institutions offering technology- based courses are related to the kind of work experience expected of them by employers. The result of the

ITF survey showed a great disparity between students' knowledge and their ability to apply it in relevant jobs. In order to bridge the gap between the two, the ITF in 1974 established a co-operative internship programme, which enabled students of technology to spend some part of their courses for relevant on-the-job practical experiences in appropriate areas of the Nigerian industry (Ekpenyong, 2011).

SIWES is intended to give Nigerian students studying occupationally related courses experience that would supplement their theoretical learning as a way of equipping the students with the needed skills to function in the world of work. According to Ahmed (2011) the idea of introducing SIWES is to fill the gap between theory and practice for students in engineering and allied courses. The scheme is of paramount importance to make students' educational development complete.

II. STATEMENT OF THE PROBLEM

Vocational and Technical Education is industry related and students of VTE courses are equally enlisted on the scheme (SIWES). Over the years there have been relatively low benefits of SIWES because of fewer placement positions due to continuous increase in students' enrolment and this could not enhance their course of study (Awojobi, 2002). There are controversial views of the impact of the scheme on students' academic performance, particularly in Ondo and Ekiti States; consequently, the researcher became interested in carrying out research to determine the effect of SIWES training on TVE students' knowledge, work experience, academic performance, level of proficiency, occupational competencies to meet industry requirement and the benefits and value added to students after the completion of the mandatory program.

RESEARCH QUESTIONS

- ✓ How does SIWES affect Vocational and Technical Education student training?
- ✓ How does SIWES affect student performance competence after the program?
- ✓ What is the value added to students to get prepared for industrial requirement for job placement?

III. METHODOLOGY

This study utilized survey design since the researcher was interested in assessing Vocational and Technical Education students' evaluating the benefits/effect of SIWES in Ondo and Ekiti States. The population of the study comprised of all 400 Level students' Vocational and Technical education students in Adekunle Ajasin University, Akungba-Akoko and Ekiti State University, Ado-Ekiti that have participated in the SIWES exercise. The total population was 500 students. The sample size for the study was 100 students representing 20% of the population.

Data was collected using questionnaire titled: Vocational and Technical Education Student Evaluation Questionnaire

(VTESEQ). The instrument had 23 items on SIWES programme, students' training and industry-based experience. A 4-Point Likert scale classified as: Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) were used. The Mean value of 2.50 and above was considered as accepted while below 2.50 was considered rejected. The instrument was validated by experts in the Department of Vocational and Technical Education in the Faculty of Education, Adekunle Ajasin University Akungba Akoko. A test – retest method was used in establishing the reliability of the instrument and this yielded a coefficient of 0.84 which confirmed the suitability of the items constructed for the study. Data were analyzed using mean and standard deviation.

A. RESULTS

RESEARCH QUESTION 1: How does SIWES affect Vocational and Technical Education students' training?

S/N	Items	Mean	SD	Remark
1	SIWES provides adequate experience and knowledge for students to choose appropriate work after graduation.	3.08	1.24	Agree
2	SIWES unit contributes to the development of vocational and technical department.	3.14	1.30	Agree
3	The stipulated period for SIWES enough for students to gather the required skills.	2.2	1.25	Disagree
4	Expose students to employers and introduce them to Industrial Training programme available within Nigerian institutions.	2.90	1.28	Agree
5	SIWES increases the knowledge of students in their various fields of specialization	2.72	1.27	Agree
6	SIWES creates platform for job opportunities	2.61	1.46	Agree
7	Provision for remuneration of students during the internship programme.	2.10	1.54	Disagree
8	Difficulties to secure place of attachment	3.24	1.34	Agree
9	Poor collaborative effort between organisation and Institutions of	3.36	1.46	Agree

	learning is affecting the effectiveness of SIWES scheme.			
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Table 1: Effect of SIWES on Vocational and Technical Education Students' Training

The data represented in table 1 above shows that the mean scores on 7 items are above 2.50 which is the mean score for decision making. This indicates that respondents make strong consents to the positive impact of Student Industrial Work Experience Scheme on their training in VTE.

RESEARCH QUESTION 2: How SIWES does affect students' competence after the programme?

S/N	Items	Mean	SD	Remark
1	Application of the theoretical and knowledge taught in the lecture rooms/workshops in real industrial situation.	3.23	1.09	Agree
2	Availability of modern facilities in SIWES placement.	3.72	1.13	Agree
3	Full engagement of students in the practical work while on site.	3.41	1.14	Agree
4	adequate attention given by the supervisor to the students (intern).	3.55	1.03	Agree
5	High level of students' interest in acquiring new skills during practical during field work.	3.65	1.11	Agree
6	Mutual relationship between theories acquired in school and the practical exposures in industries.	3.45	1.04	Agree

Table 2: Effect of SIWES on students' performance competence

Table 2 shows that all the mean score are above 2.50 which is the mean score for decision making. This indicates that most of the respondents agreed to the positive impact of the SIWES programme on the skill aspect required for performance competence.

RESEARCH QUESTION 3: What are the values added to students to get prepared for industrial requirement for job placement?

S/N	Value Added	Mean	SD	Remark
1	The experience of SIWES exposes students to the intricacies in office automations	3.44	.989	Agreed
2	SIWES exposed students to the skills of properly managing materials and facilities.	3.24	.894	Agreed
3	Good communication skills between the intern	3.40	.797	Agreed

	student and the co-workers.			
4	SIWES exercise enables students to acquire the necessary skills needed in office management.	3.07	.706	Agreed
5	Gainful experience in writing report in the fields of study, works/project.	3.66	.647	Agreed
6	Good exposure to practical skills and knowledge in internship placement	3.31	.914	Agreed
7	SIWES promotes proper acquisition of personal quality skills.	3.15	.824	Agreed

Table 3: Value added to student during their internship training

Data presented in table 3 above revealed that all the items on personal qualities and interpersonal skills showed high mean scores which indicate that all the respondents agreed to the positive impact of the programme on their personal development.

B. DISCUSSION OF FINDINGS

Based on the analysis of data, the following findings were made: Research question one (1) reveals that Student Industrial Work Experience Scheme positively affects students in the department of vocational and technical education in gaining access to the practical knowledge, expose to work methods and prepare them in safeguarding the work area and other workers in the industry. It is evident that skills development and utilization cannot be achieved in isolation, rather, the relevant stakeholders must be committed to the course and be fully involved, such as students and teachers from institutions of higher learning, corporate industries and commercial bodies, and Federal Government must be involved. This is supported by Nwoji (2003) who stated that the central focus of the scheme is to enlist and strengthen employers' involvement in the educational processes of preparing students for work, as they exit in the world of work (industry).

Research question two (2) focussed on the effect of SIWES on students' performance competence. It is evident that student performance after the internship programme increases due to their practical world exposure. Students were expose to work methods and techniques in handling equipment and machinery that may not be available in their institutions. This was corroborated by Cole (1997) that training in skills is related to exposure to job challenges and competence level of the job holders. This finding was further supported by Aderonke (2011) who reiterated the submission of the Manpower Service Commission (1981) which described training, as a planned process to modify attitude, knowledge and skill behaviour through learning experience to achieve effective performance in the range of activities. Students who undertake SIWES programmes are better exposed to new technological skills in the work situation and future

expectation, to satisfy the current and future manpower needs of the organization and the society.

Research question three (3) focused on the value added to students to get prepared for industrial requirement for job placement. Students showed general improvement in their exposure to the intricacies in office automations, proper management of materials and facilities and their interactions with different groups, and various communities and workers. This also lend credence to Cole (1997) who found that training in skills is related to exposure to job challenges and competence level of the job holders in organisation.

IV. CONCLUSION AND RECOMMENDATION

SIWES is of great benefit to students in Vocational and Technical Education training and as well boost their performance/competence by inculcating in the participants work skills that are relevant to their chosen course of study as well as exposed them to machinery and equipment used in their course of study. It also equipped students with relevant skills required by industry and has an impact on students early career success. In order to produce certified and efficient (well equipped) graduates and not just half-baked in the department of Vocational and Technical Education, the following recommended are made:

- ✓ SIWES programme should be strengthened through periodic evaluation by the relevant stakeholders, namely, Government, Institutions of learning and organizations in order improve the quality of the programme and students performance competence and achieve the objectives for which the programme has been organized.
- ✓ There should be mutual collaboration between Industry and Institutions in order to place their students (intern) in the appropriate sections relevant to their field of study/discipline which will aid quick acquisition of the required skills.
- ✓ The supervision of the intern should be made by experienced personnel.

- ✓ Modern equipment (machines and tools) should be provided for the training institutions to enable the intern apply all the skills learned during the internship programme.

The government through ITF in collaboration with other stakeholders should establish industrial centres which should be capable of taking up to five hundred students at a time to open adequate avenues for the acquisition practical skills.

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