

Influence of Students' Industrial Work Experience Scheme (SIWES) in Enhancing Employable Skills of Business Education Students in Federal Tertiary Institutions in Anambra State

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Abstract

This study sought to ascertain the influence of students' industrial work experience scheme (SIWES) on enhancing employable skills of business education students in Federal Tertiary Institutions in Anambra State. Four research questions were used to guide the study. The study adopted the survey design. A Purposive sampling technique was used to select 150 final year business education students from two federal tertiary institutions in Anambra state, Nigeria: Federal College of Education (Technical) Umunze and Nnamdi Azikiwe University, Awka. Questionnaire was the instrument used for data collection. Data collected was analysed using weighted mean and standard deviation. Findings revealed that majority of business education students understudied benefit from SIWES to a high extent. The employable skills enhanced through SIWES includes; typing skills, time management skills, innovation skills, leadership skills, team work skills among others. Noticeable challenges facing SIWES include finance, students' placements as a result of non-acceptance of students by some employers into their establishments, inadequate supervision of trainees as well as irregularity in academic calendar of institutions among others. It was recommended that there should be serious monitoring of both supervisors and students, Organizations should always accept students for SIWES and students should be placed in their areas of discipline within the industry for training.

Keywords:

Introduction

The educational system in Nigeria is vested with the responsibilities of preparing the youths with relevant skills necessary for self-reliance or white collar job using the school-curriculum as a means of achieving this purpose. Business education as an aspect of education enables students to acquire knowledge, skills and appropriate attitude required for meaningful work experience. Imeokparia and Ediagbonya (2014) expressed that business education is geared towards equipping the learners (students) with business and education competencies (that is, skills, knowledge and attitude) needed

to effectively and efficiently function in the world of work either as an employee or an employer (job/wealth creator).

Business education helps in inculcating employability skills hence, employable skills are those skills that the employer needs. Edebeatu (2009) noted that employability skill is a group of essential abilities that involves the developments of knowledge base expertise level and mindset that is increasingly necessary for success in modern work place. Employable skill are typically considered an essential qualifications for many job positions and hence become necessary for an individual employment success of just about any level within a business environment. The primary objective of business education is to foster the acquisition of the necessary business competencies needed to effectively function in the world of work, either as an employee or an employer of labour. Therefore, 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 Work Experience Scheme (SIWES).

The Students Industrial Work Experience Scheme (SIWES) is a skill development programme which was designed to expose and prepare students for the industrial work situation in order to achieve technical and vocational skill through various firms, industries and factories and in any commercial establishment. Inyiagu (2012) posits that SIWES is an effort to bridge the gap between theory and practice of engineering, technology, science agriculture, medicine and other industrial related professional educational programme in Nigerian tertiary institutions. SIWES enables students to acquire technical skill and experience for professional development in their study. Before the inception of the scheme there was a growing concern among Nigerian industrialists that graduates of institutions of higher learning lacked adequate practical background experience necessary for employment. So employers were of the opinion that the theoretical education provided by the higher institution does not meet or satisfy the needs of the economy.

It was against this background that the scheme during its formative years, introduced SIWES to provide students with the opportunity of exposure to enable them acquire prerequisite practical knowledge and skills (Ikukanda, 2013). This work experience program gives students the opportunity to be part of an actual work situation outside the classroom. The impact of SIWES has thus, been a cause of concern to education and economic planners, particularly with respect to graduate employment. There are also mixed concerns about how much of it that is actually helpful to student's academic performance and job readiness after graduation. While some institutions

and programs permit SIWES for only three months, others go for up to one year.

Statement of the Problem

The students' industrial work experience scheme (SIWES) was established in Nigeria in the year 1973 by the industrial training fund (ITF). As the name implies, it is a training scheme designed to provide industrial job and occupational skills to students in vocational and technical field of study in institutions of higher learning throughout Nigeria, before graduating to complement their training in the school. The aim is to help the students to achieve their set goals and become specialists in their various fields of studies. There is no doubt that SIWES is a laudable skills development programme, geared towards bridging the gap between theories learnt in the class and the actual practice.

In the light of the above, students of business education undergoing SIWES are expected to acquire practical skills in their various disciplines (options). However, this is not the case as Okoh (2010) observed that there is lack of practical skills among graduates of Nigerian institutions of higher learning. This situation has given rise to complaints, among parents and industries, that graduates of tertiary institutions are half-groomed, lack manipulative skills and not employable. The situation also gave rise to the question as to whether the SIWES is an effective platform for equipping business education students with the competencies and skills they so much require. It therefore became important to conduct an empirical study to ascertain the influence of students' industrial work experience scheme (SIWES) in enhancing employable skills of business education students in Federal Tertiary Institutions in Anambra State.

Purpose of the Study

The main purpose of this study was to ascertain the influence of students industrial work experience scheme (SIWES) in enhancing employable skills of business education students. Specifically, the study sought to:

1. Determine the benefits of SIWES to business education students.
2. Ascertain the employable skills enhanced through SIWES.
3. Identify the problems limiting the achievement of SIWES objectives as it applies to students of business education.
4. Determine the strategies for enhancing SIWES efficiency and effectiveness.

Research Questions

The following question guided the research.

1. What are the benefits of SIWES to business education students?
2. What are the employable skills enhanced through SIWES?

3. What are the problems limiting the achievement of SIWES objectives as it applies to students of business education?
4. What are the strategies for enhancing SIWES efficiency and effectiveness?

Literature Review

Student industrial work experience scheme (SIWES)

Student industrial work experience scheme (SIWES) is a skill development program designed to expose and prepare students for real work in which they are likely to meet in their various discipline after graduation from school. The scheme was introduced in Nigeria by the Industrial Training Fund (ITF) in 1973, to bridge the gap between theory and practice of Engineering and Technology in Nigeria tertiary institutions of higher learning. This is to say that, SIWES was introduced to enable Nigerian students in the tertiary institutions of higher learning, to match their theoretical school knowledge with the practical aspect of their training in the industry. Usman & Tasmin (2015) states that SIWES is designed to help and consolidate school/industry collaboration of undergraduate students undergoing courses in Science, Engineering and Technology and other professional courses to acquire necessary practical skills in addition to theoretical knowledge gained in the classroom. It is a program that uses the work environment to expose students to work methods and provide needed experience in handling tools, machinery and equipment that may not be available in educational institutions.

SIWES is a training programme that provides students with the opportunity to apply their knowledge to real life work situation thereby bridging the gap between theory and practice (Agwunan, 2012). Gill & Lashine (2003) identify the general skills student acquire through SIWES to include working in teams; presenting orally and problem-solving skills; communication and time management; better self-confidence and better self-motivation; flexibility and willingness to handle a wide range of tasks; ability to handle change; continual learning and entrepreneurial attitude; computing skills and knowledge of current information systems, and information delivery mechanisms among others. Similarly, Abraham-Ibe (2015) observed that through SIWES students have the opportunity to develop the much needed skills such as teams work skills; problem-solving skills; communication and time management skill among others while pursuing their academic qualifications in the universities. The student industrial work experience scheme (SIWES) has been in existence for over 35 years with the collaborative effort of tertiary institutions and other agencies/organizations that accredit the activities of tertiary institutions such as the National

Universities Commission (NUC), National Board for Technical Education (NBTE), National Commission for Colleges of Education (NCCE) and Industrial Training Fund (ITF) which is the fund disbursement unit (Eneje, 2012).

The students that participate in this program include those studying engineering, vocational, technological and other related science courses in institutions of higher learning. SIWES forms part of the approved minimum academic standards in these institutions and it is also a core academic requirement carrying four credit units, which must be met by the students before graduation (Ahmed in Abraham-Ibe, 2015). As an industrial attachment process, SIWES extends and enlarges the learning environment and resources beyond the capabilities of the school thereby enlarging the scope and quality of practical skills that students can acquire. It helps students to acquire occupationally oriented knowledge, skills and work-attitudes with immediate opportunity to apply them in real world of work (Ogbu, 2015).

The major objectives of establishing the scheme as published in Industrial Training Fund (ITF) includes:

1. To expose and prepare students to method in handling equipment and tools that may not be available in educational institution.
2. To expose the instructors/ lectures to new developments in industrial sectors.
3. To promote cordial relationship between institution and industrial sectors.
4. To involve employer of labour in the entire educational process of preparing students as future employers.
5. To expose and prepare students in vocational technical and science related course for the industrial work situation they are likely to meet after graduation.
6. To bridge the gap between theoretical learning in the class and practical experiences in the field.
7. To prepare students for a business career by merging their analytical power with the practical skills for self-reliance (Industrial Training Fund 2006).

Challenges of SIWES on the Employable Skills/ Occupational competences of business education students.

There are some noticeable challenges facing students' industrial work experience scheme which impede the fulfillment of its objectives. These challenges include finance which affects certain aspects of its operation like students' supervision and payment of allowances to participants. The issue

of students' placement is another challenge facing SIWES operation. Some employers are not willing to accept students into their establishments due to attitudes of some students and for not wanting to take responsibility of remuneration of students after completion of the scheme; this is a challenge. There is also the problem of some students wanting to choose places of attachment by themselves for reasons ranging from not wanting to be far from their homes and wanting to use the period for enjoyment and leisure like holiday period, thereby choosing places that are not related to their profession (Ojokuku, Emeahara, Aboyade, & Chris-Israel, 2015). An example is a Business Education student training in an automobile workshop instead of an accounting firm or a receptionist/ secretary in a business firm; this has defeated the objectives of the scheme because no practical experience will be acquired at the end of the training.

Ubale (2014), identified some of the problems to include; short duration of the programme which makes it impossible to acquire the needed practical skills; students were sometimes given other assignments other than their primary objectives, students reporting late at their places of assignment due to inability to secure the right places of attachment when they were posted, as well as rejection of students by some organization; conflict sometimes arise between what is taught to students and what obtains in the industries, inadequate/poor supervision of students; some students do not receive training throughout the period due to inadequacy of facilities for training of the attachee; unwillingness or lack of commitment by companies/establishment staff to expose the students to the required skills and training needed, some of the industry based supervisors may be hostile to the students and may not be ready to help the students to learn; students arrange for their own accommodation which is a constraint due to the financial implications of getting a convenient place for them. Effah, Bomphong, Adu, Anokye & Asamoah (2014); also identify barriers such as difficulty in getting placement, poor supervision from industry based supervisors, restriction of trainees from accessing machinery and equipment, high cost of undergoing the programme, lack of training materials, lack of appropriate skills among professionals among others.

Other barriers include shortness of the industrial training period which makes it difficult for trainees to have sufficient industry exposure (Karunaratne & Perera, 2015); unfriendliness of industry workers towards trainees, who for fear of losing their jobs to trainees are unwilling to provide in-depth training to them (Bukaliya, 2012).

Strategies for Enhancing Students Industrial Work Experience Scheme (SIWES)

A number of strategies that could enhance SIWES have also been identified. Kuranaretne & Perera (2015) posit that SIWES will yield the expected result if training is channeled to developing trainees' skills by exposing them to creativity based learning projects and presentation skills, team work activities and managerial skills results. The following as suggested by Oladimeji et al (2016), are some of the solutions or strategies for enhancing SIWES;

- (i) Proper Coordination and Supervision of the Exercise by various bodies involved in the management of the SIWES exercise i.e. Federal Government, Industrial Training Fund (ITF), NUC, NBTE and NCCE.
- (ii) The various bodies involved in the management of the SIWES programme should liaise with the various industries ahead of time so as to minimize or reduce to the barest minimum the high level of refusal to accept students for their industrial training.
- (iii) Issuing of Log Books/IT Letters in time: The log books used by the student during the industrial training period and the IT letters should be issued to the students in time.
- (iv) The various institutions should endeavour to employ experts in the areas of career development to manage the student's industrial placement centres
- (v) Timely payment of SIWES allowance to students

Bukaliya (2012) add that the SIWES period should not be too short if trainees are to benefit maximally from it. In fact, respondents in a study by Mihail in Ijeoma, Anthonia & Fidelia (2017) were of the view that the training period should range between 6 and 9 months instead of 3 months. The preceding discussion indicates that the issue of SIWES by students of business education is not a new one. However, most of the literature in existence on the subject emanating from Nigeria are either theoretical in their approach or written from the perspective of industry trainers. This is not sufficient to provide a balanced view of the scheme. Moreover, there is insufficient research on the perception of business education students in Nigeria on the employable skills enhanced through student's industrial work experience scheme (SIWES). This is the gap that this study seeks to fill.

Methodology

The study adopted the survey design. A sample size comprising one hundred and fifty (150) final year business education students was purposively drawn from two federal tertiary institutions in Anambra state, Nigeria: Federal College of Education (Technical) Umunze (50 NCE and 50 degree students) and Nnamdi Azikiwe University, Awka (50 students).

Purposive sampling was preferred because the researcher reasoned that having already experienced the SIWES, the final year students were much more informed and likely to respond more knowledgeably. The instrument used for data collection was a structured questionnaire entitled: Influence of Students Industrial Work Experience Scheme in Enhancing Employable Skills of Business Education Students Questionnaire (ISIWESEESQ) which consisted of 29 items. A 5-Point Rating Scale showing Strongly Agree (SA)=5, Agree (A)=4, Undecided (UD)=3, Disagree (D)=2 and Strongly Disagree (SD)=1. The instrument was validated by three experts in the field. Cronbach Alpha technique was used to determine the internal consistency of the questionnaire items. A coefficient of 0.76 was obtained. The data collected were analyzed using weighted mean and standard deviation. For the research question, a mean score of 3.5 and above was regarded as "accepted" and a mean rating below 3.5 was interpreted as "rejected".

Data Presentation, Analysis and Discussion

The Data collected to answer the research questions were analyzed using mean and standard deviation and the results are shown below.

Research Question 1: What are the benefits of SIWES to business education students?

Table 1: Mean Responses of Respondents on the Benefits of SIWES to Business Education Students.

S/N	Items	N	$\bar{X}$	SD	Remark
1.	The student industrial work experience (SIWES) aid students to reconcile what they studied in class.	150	4.70	0.62	Accepted
2.	The SIWES programme aid students develop abilities and skills necessary for proficiency in their profession.	150	4.54	0.54	Accepted
3.	SIWES develop in students the necessary work ethnics and habits needed in any occupation.	150	4.41	0.77	Accepted
4.	The experience of SIWES exposes student to the intricacies in office automations.	150	4.24	0.79	Accepted
5.	SIWES empowers students to be more useful and productive citizens as well as assets to the society.	150	4.24	0.98	Accepted
	Grand mean		4.43		

From table 1, the respondents agreed with all the items with the mean value of 4.70, 4.54, 4.41, 4.24 and 4.24. This shows that the above items have been identified as the benefits of SIWES to business education students. Considering the grand mean of 4.43 implies that business education students actually benefit from SIWES.

Research Question 2:What are the employable skills enhanced through SIWES?

Table 2: Mean Responses of Respondents on theEmployable Skills Enhanced through SIWES.

S/N	Items Statement	N	X	SD	Remark
6.	Typing skill	150	4.70	0.50	Accepted
7.	Filing skill	150	4.15	0.66	Accepted
8.	Time management skill	150	4.26	0.82	Accepted
9.	Innovation skill	150	3.96	0.83	Accepted
10.	Sale/marketing skill	150	4.13	0.85	Accepted
11.	Information technology skills	150	4.5	0.77	Accepted
12.	Planning and organizing skill	150	4.20	0.85	Accepted
13.	Record keeping skill	150	4.43	0.68	Accepted
14.	Team work skill	150	4.11	0.91	Accepted
15.	Leadership skill	150	3.91	1.00	Accepted
16.	Risk management skill				
	Grand Mean		4.23		

From table 2, the respondents agreed with the items which have the mean value of 4.70, 4.15, 4.26, 3.96, 4.13, 4.5, 4.20, 4.43, 4.11 and 3.91. This shows that the above items have been identified as the employable skills enhanced through which SIWES. Considering the grand mean of 4.23, it implies that employable skills can be enhanced in business education students through students industrial work experience scheme (SIWES) to a high extent.

Research Question 3:What are the problems limiting the achievement of SIWES objectives as it applies to students of business education?

Table 3: Mean Responses on the Problem Limiting the Achievement of SIWES Objectives as it Applies to Students of Business Education.

S/N	Items Statement	N	X	SD	Remark
17.	The stipulated period for SIWES is inadequate for the students to acquire the expected skills and competencies.	150	3.93	0.98	Accepted
18.	Wrong SIWES placement of students.	150	3.43	1.64	Rejected
19.	Inadequate SIWES supervision and monitoring.	150	3.57	1.31	Accepted
20.	Erratic and hectic academic calendar.	150	3.15	1.06	Rejected
21.	Lack of co-operation by some establishments.	150	3.76	1.27	Accepted
22.	Lack of seriousness on the part of some students who take the SIWES period as a holiday.	150	4.15	1.18	Accepted
23.	Financial constraints on the part of the students.	150	3.87	1.01	Accepted
	Grand Mean		3.70		

In the above table 3, the respondents agreed with the items which have the mean value of 3.93, 3.57, 3.76, 4.15 and 3.87, showing that these are the problems limiting the achievement of SIWES objectives as it applies to

students of business education. While the items with the mean value 3.43 and 3.15 were rejected indicating that the above items were not identified as the problems limiting the achievement of SIWES objectives as it applies to students of business education.

Research Question 4: What are the strategies for enhancing SIWES efficiency and effectiveness?

Table 3: Mean responses on the strategies for enhancing SIWES efficiency and effectiveness.

S/N	Items Statement	N	X	SD	Remark
24.	Extend SIWES training period	150	4.30	1.16	Accepted
25.	Serious monitoring of both supervisors and students.	150	4.43	0.68	Accepted
26.	Increment and timely payment of SIWES allowance to students	150	4.54	0.71	Accepted
27.	Better placement strategies.	150	4.57	0.54	Accepted
28.	Stricter supervision of students proper during SIWES.	150	4.39	0.82	Accepted
29.	More enlightenment campaigns to all stake holders in SIWES on the importance of SIWES	150	4.43	0.61	Accepted
	Grand Mean		4.45		

From table 4 above, the respondents agreed with all the items with the mean value of 4.30, 4.43, 4.54, 4.57, 4.39 and 4.43. This showed that the above items have been identified as the strategies for enhancing SIWES efficiency and effectiveness.

Discussion of Findings

The evidence from the findings in table 1 of this study shows that the benefits of SIWES to business education students includes; developing in students the necessary work ethnics and habits needed in any occupation, aiding students to develop abilities and skills necessary for proficiency in their profession, exposing student to the intricacies in office automations, among others. Considering the grand mean of 4.43 implies that business education students actually benefit from SIWES. This findings is in line with the views of Agwunan (2012) that SIWES is a training programme that provides students with the opportunity to apply their knowledge to real life work situation thereby bridging the gap between theory and practice. This was confirmed in item 1 that SIWES aid students to reconcile what they studied in class.

The result of the study in table 2 further showed that the employable skills enhanced through SIWES includes; typing skills, time management skills, innovation skills, leadership skills, team work skills etc. This finding is in accordance with the opinion of Ogbu (2015) SIWES helps students to acquire occupationally oriented knowledge, skills and work-attitudes with

immediate opportunity to apply them in real world of work. In line with the findings also is Abraham-Ibe's (2015) assertion that through SIWES, students have the opportunity to develop the much needed skills such as teams work skills; problem-solving skills; communication and time management skill among others while pursuing their academic qualifications in the universities. Considering the grand mean of 4.23, it implies that employable skills can be enhanced in business education students through students industrial work experience scheme (SIWES) to a high extent.

The finding in table 3 revealed that items 17, 19, 21, 22, & 23 are the problems limiting the achievement of SIWES objectives as it applies to students of business education. These are also among the challenges/barriers identified in previous studies by Effah, et al. (2014); Karunaratne & Perera (2015); Bukaliya (2012). While the items 18 & 20, were not identified as the problems limiting the achievement of SIWES objectives as it applies to students of business education. These findings contradict the views of Olumese & Ediagbonya (2016) that the wrong placement of students for SIWES militates against the programme. Considering the grand mean of 3.70, it implies that the problems limiting the achievement of SIWES objectives as it applies to students of business education is of a high extent. The evidence from the findings in table 4 of this study shows that Extend SIWES training period, Serious monitoring of both supervisors and students, Increment and timely payment of SIWES allowance to students, Better placement strategies, among others, have been identified as the strategies for enhancing SIWES efficiency and effectiveness. Kuranaretne & Perera (2015); Oladimeji et al (2017); Bukaliya (2012) & Mihail in Ijeoma, Anthonia & Fidelia (2017) in their various studies also noted that some of the strategies for enhancing SIWES include Proper Coordination and Supervision of the exercise by various bodies involved in the management of the SIWES exercise; Issuing of Log Books/IT Letters in time; Timely payment of SIWES allowance to students; SIWES period should not be too short if trainees are to benefit maximally from it, among others. Considering the grand mean of 4.45, it implies that student's industrial work experience scheme (SIWES) can be enhanced through these strategies to a high extent.

Conclusion

SIWES has exposed business education students to new work methods and experience needed in handling equipment and facilities which are not available in the school but needed to perform certain jobs. Business education students with the help of SIWES were able to bridge the gap

between knowledge acquired in the school and the relevant practical skills required in work places. However business education students are faced with lots of challenges during their trainings which include; Financial constraints on the part of the students, Inadequate SIWES supervision and monitoring, stipulated period for SIWES is inadequate for the students to acquire the expected skills and competencies and inability to secure relevant and related places of training. Hence for business education students to be professionally and competently trained in their course of studies, the initiators of the scheme need to develop a better approach that will face out the challenges faced by the students during the course of their studies.

Recommendations

From the findings of the study, the following recommendations were made:

1. The period of student industrial work experience scheme (SIWES) should be increased.
2. There should be serious monitoring of both supervisors and students.
3. There should be better placement strategies. Organizations should always accept students for SIWES and students should be placed in their areas of discipline within the industry for training.
4. The allowance given to students should be increased and paid during the period of students industrial work experience scheme (SIWES).
5. Issuing of Log Books/IT Letters in time. The log books used by the student during the industrial training period and the IT letters should be issued to the students in time.

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