

Attitudes of Vocational and Technical Education Students Towards (SIWES) Programme at Kogi State College of Education (Technical) Babba

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Article DOI: 10.48028/iiprds/ijarssest.v5.i2.07

Abstract

This research work investigated the attitude of students towards Students' Industrial Work Experience Scheme (SIWES) using the descriptive survey research design. The research was conducted among undergraduate students of the Kogi State College of Education (Technical), Kabba, 40 students were randomly sampled from the school of Vocational and school Technical education. The instrument was the questionnaire in likert type response format; Strongly Agree (5), A = Agree (4), U= Undecided (3), DA= Disagree (2), and SD =Strongly Disagree (1). the research questions were analyzed using the mean rating, and the findings are that: School equipment were not found replicating those in the industries, the schools lack adequate infrastructures that discouraged students further in showing concern for industry's based training, Knowledge of I.T was found to be valuable in giving students an idea of industrial management and SIWES enhance student's ability to tackle technical problems. It was observed that student attitude toward SIWES has improved over time, regardless of challenges on ground. It was however recommended that ITF should ensure regular visitation of the IT officers to supervisors, agencies, institution, employers and students on attachment. Also, checking of log –book issued to students at place of attachment by institutions is recommended so that the average vocational students can develop a good sense of work commitment.

Keywords: *Attitudes, Vocational and Technical Education.*

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Background to the Study

Attitude as a concept is concerned with individuals' way of thinking, acting, and behaving. Attitudes are formed as a result of some kind of learning experiences. Attitude is fundamental to understanding social perception of people because they strongly influence people. Ojo (2000) in Hassan, (2006) stated that it is the disposition of men to view things in a certain way and to act accordingly. This notion of attitude however, could be said to have propelled students who gain admission into universities to have preference for a particular course of study. Furthermore, some students still hold divergent views based on their attitudinal disposition to the Student Industrial Work Experience Scheme (SIWES), which motivate them towards the studying of Technical and Vocational Education (TVE) in tertiary institutions.

The Federal Republic of Nigeria (FRN) (2004) in her national policy on education defined technical and vocational education as acquisition of demonstrable skills that could be transformed into economic benefits. It also refers to those aspects of education process involving general education, the study of technologies, science and acquisition of practical knowledge and skills.

Students Industrial Work Experience Scheme (SIWES) is defined as a skill training programme that is designed to expose and prepare students of education, agriculture, engineering & technology, environmental sciences, natural science, medical science and pure applied science for the industrial work situation. The objectives of Students Industrial Work Experience Scheme among others are to:

1. Provide students with the opportunity to apply their knowledge in real work situation thereby, bridging the gap between theory and practices.
2. Provide an avenue for students in institution of higher learning to acquire industrial skills and experiences in them approve course of study.
3. Prepare students for the industrial work situation which they are likely to meet after graduating.
4. Expose students to work methods and techniques in handling equipment and machinery not available in the institution (Information and Guidelines for SIWES, 2002).

From the above objectives, it suffices to say that there are ample opportunities for students who undergo the Students Industrial Work Experience (SIWES). In this gigantic and pervasive profession, career prospect in any profession can be examined in two ways. These are: (i) vertical and (ii) horizontal. In the vertical approach, various levels of academic qualifications of job seekers are considered, while the horizontal approach considered the experience acquired by professionals in the study or industry. Students may undergo SIWES in the following areas: Business Studies, Home Economics, Basic Technology and Agriculture, Local craft, computer education, fine art and music (Ezeji and Oviawe, 2009).

In fact, in recent past, the political instability led to dwindling interest of students in SIWES in institution due to poor infrastructure, lack of educational facilities and learning facilities like work shop laboratories. SIWES requires students to work with equipments in the work shop and typewriters in typing pools culture and utensils in the school demonstration farms. The resultant effect of these problems have seen students leaving their bases for technical education courses in higher institutions, which has resulted in great economic loss. In Nigeria, the situations not changed, as it is becoming highly imperative to find out if most undergraduates will be interested in SIWES based on their predisposition to the programme, which is what this study wants to examine.

The government decree No 47 of 8th October 1971 as amended in 1990 highlighted the capacity building of human resources in industry, commerce and government through training and retaining of workers in order to effectively provide the needed high quality goods and services in a dynamic economic as ours (Jemerigbo, 2003) this decree led to establishment of industrial training fund (ITF) in 1973/1974 the growing concern among our industrialist that graduate of our institution of higher learning-lack of adequate practical studies preparatory for employment in industries led to the formation of Students Industrial Work Experience Scheme.

Student Industrial Work Experience Scheme by ITF was introduced in 1993/1994 (Information and Guideline for SIWES, 2002). ITF has one of the key functions to work as a co-operative entity with industry and commerce were institutions of higher learning can undertake mid-careers work experience attachment in industries which are compatible with students of study (Okorie 2002 in Asikadi, 2003).

Students' education is regarded as a process of developing skills, teaching personnel so that they can impact goods and quality knowledge. In Nigeria it is stated in clear terms by FRN (2004) in her national policy on education implementation committee blue print. It stipulates that SIWES is mandatory for students in technical colleges, polytechnics, college of education and universities; and government has taken a bold step in ensuring full compliance of policy statement. The technical and vocational education is very vital in the educational system. The primary goal of SIWES is to improve student's skills in order to enhance meaningful learning. Student Industrial work experience scheme is one of the content at which student's performance is been improved after a period of instruction in a manner consistent with the goals of industries. Hence this study x-ray factors responsible for poor attitude of students to student's industrial work experience scheme in higher institutions in Edo state.

Statement of Problem

Technical and Vocational Education students undergoing SIWES program are very vital part of the educational system in Nigeria. Various perceptions of these students towards industrial training are based on some motivational factors like remuneration, relationship with employers, opportunities for practical amongst others. Amongst these attitudinal dispositions are non-punctual to work, respect for authorities, serving in non-relevant industries or company for it enumeration packed, etc. These problems just as they remained persistent in the

Industrial Training will continue to affect the skill acquisition goals of SIWES. Because of the enviable position of the Technical and Vocational Education and their role in the industries, we cannot afford to relegate to the background the Student Industrial Work Experience Scheme. This programme (SIWES) will be critically examined in this study especially on the basis of students attitude to the work environment, and proffering necessary solution if need be.

Purpose of Study

The purpose of this study was to determine the attitude of students towards SIWES in the higher institutions. Specially, this study sought to find out the:

1. Factors responsible for students poor attitude towards SIWES, and
2. Attitudinal differences of male and female students' poor towards SIWES.

Research Questions

The following research questions were formulated to guide this study:

1. What are the factors responsible for students' attitude towards SIWES?
2. Are there any attitudinal differences of male and female students' attitude towards SIWES?

Literature Review

An Overview background of the Students Industrial Work Experience Scheme (SIWES)

The government's decree No. 47 of 8th Oct; 1971 as amended in 1990, highlighted the capacity building of human resources in industry, commerce and government through training and retraining of workers in order to effectively provide the much needed high quality goods and services in a dynamic economy as ours (Jemerigbe, 2003). This decree led to the establishment of Industrial Training Fund (ITF) in 1973/1974. The growing concern among industrialists are that graduates of institutions of Higher learning, lack adequate practical background studies preparatory for employment in industries, led to the formation of students Industrial Work Experience Scheme (SIWES) by ITF in 1993/1994 (Information and Guideline for SIWES, 2002). ITF has as one of its key functions; which is to work as co-operative entity with industry and commerce where students in institutions of higher learning can undertake mid-career work experience attachment in industries which are compatible with students area of study (Okorie 2002, in Asikadi 2003).

The students Industrial Work Experience Scheme (SIWES) is a skill Training programme designed to expose and prepare students of Education, Agriculture, Engineering, Technology, Environmental, Science, Medical Sciences and pure and applied science for the Industrial work situation which they likely to meet after graduation. Duration of SIWES is four months in Polytechnics at the end of NDI, four months in College of Education at the end of NCE II and six months in the Universities at the end of 300 or 400 or 500 levels depending on the discipline (Information and Guideline for SIWES, 2002).

Conceptual and Theoretical Framework

The study is based on the system theory. The choice of the system theory for the study is based on the premise that the systems approach gives room for assessing the output of education in a

given society by the inputs. The output will be the performance of the students who are the products of the system. The conversion process takes place when the inputs are subjected to the right curriculum, teaching/learning processes, evaluation and conversion of human, physical, material and financial resources into outputs. For the technical institutions to enhance a sustainable society, they need adequate supply of inputs that will be put into use (conversion process) to get the needed output.

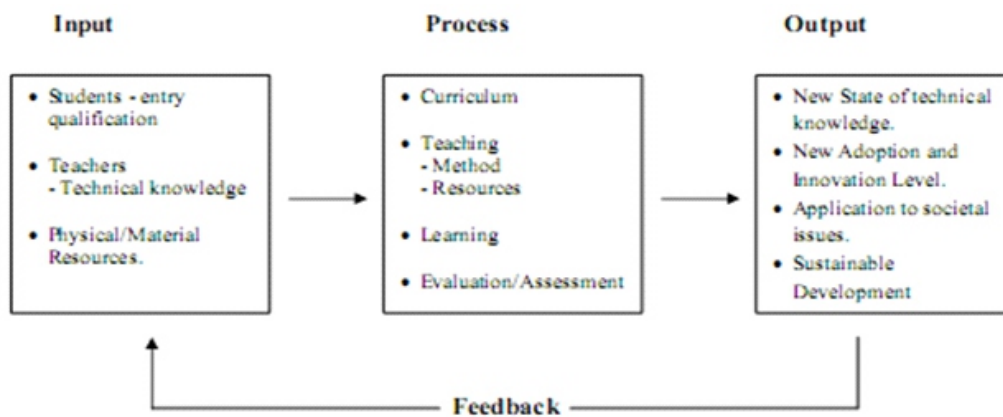


Figure 1: The system Dimension as Study Innovative Framework (Input-Process-Output)

Narrowing down to the topic “Indigenous Orientations in Technical and Vocational Education (TVE) Programme: Tool for a Sustainable Society”, sustainability is the ability of a system to maintain itself with no loss of function for extended periods of time. In human terms it is the creative and responsible stewardship of resources (human, management, natural, and financial) to generate stakeholder values while contributing to the well-being of current and future generations of all beings. A process of human development (individual, societal, or global) that can be said to be socially and ecologically sustainable if it involves an adaptive strategy that ensures the evolutionary maintenance of an increasingly robust and supportive environment is known as Sustainable development. Such a process enhances the possibility that human and other life will flourish in this planet indefinitely (Wikipedia, 2007).

For technology to be adopted for effective development there is need for interconnectivity and interactivity with:

1. Other institutions of higher learning within and outside the country,
2. Industries that employ the graduates,
3. The society within which the product of higher institutions operate, and
4. Developed nations from whom the various technologies are adopted and adapted for a sustainable society.

According to Ogbeide in an interview conducted by “Talk It” (a radio Nigeria weekend programme) “students undergoing Industrial Training have to be perceived as the new classroom students just as they need to be integrated into the new learning environment. Their

expectation is so high because, the period of Industrial Training though limited; their urgent desire is to quickly experience the real practice of what they have learnt in schools and get acquainted with the real situation.”

Methodology

A Descriptive survey research designed to investigate the attitude of students towards Students Industrial Work Experience Scheme (SIWES), with special emphasis on Kogi State College of Education (Technical), Kabba, Kogi State.

Random sampling technique was used. The population comprised of 116 of both male and female students from School of Vocational Education and School of Technical Education. This is represented in the table below;

Table 1.

SCHOOL/DEPT	SESSION	MALE	FEMALE	TOTAL	RANDOM SELECTION
Agric Education	2015/1016	12	6	18	7
	2016/2017	19	19	38	10
Fine & Applied Arts.	2015/1016	2	-	2	2
	2016/2017	4	4	8	4
Computer /physic	2015/1016	6	7	13	5
	2016/2017	5	2	7	3
Technical	2016/2017	7	-	7	4
	2016/2017	23	-	23	5
TOTAL				116	40

Samples of 40 male and female students from 200 and 300 levels were randomly selected from the School of Vocational Education and School of Technical Education in Kogi State College of Education (Technical), Kabba, Kogi State.

The instrument for gathering the data in this study was a questionnaire developed by the researcher from literature reviewed. The questionnaire comprised of 20 items based on a five (5) point scale viz: SA – Strongly Agree (5), A – Agree (4), U – Undecided (3), D – Disagree (2) and SD – Strongly Disagree (1). The questionnaire was grouped in to two sections, section A and section B. The section A comprised of respondent's bio-data, while section B comprises of items that focus on the attitude of Technical and Vocational Education students towards SIWES and the factors responsible for the poor dispositional attitude towards the scheme.

The questionnaires were administered to the students (respondents) personally by the researchers. The instruments were administered and collected on the spot. All the 40 copies of questionnaires were distributed and duly completed and returned. The instrument was subjected to a face and content validity under the supervision of two other experts in the Department of Vocational and Technical Education, COE (T) Kabba. Based on their corrections, modifications were made which resulted in the final draft used in this study. The instrument reliability coefficient was 0.65.

In analyzing the data collected from the field, the mean (\bar{x}) and standard deviation was used in answering the research questions. The mean score of any item in the questionnaire equal to 3.00 or above was regarded as agreed; any mean less than 3.00 will be regarded as disagreed. The questionnaire was designed and presented on a 5 point scale and respondents were asked to check and tick the degree to which they agree or disagree with the responses in the questionnaire. The 3.00 mean benchmark that will be used was arrived by summing up the 5 point likert scale options and divided by 5. That is, $5 + 4 + 3 + 2 + 1 = 15/5 = 3.00$.

The instruments used in the analysis of data were mean, (\bar{x}) and standard deviation.

$$\text{Mean} = \frac{\sum fx}{X}$$

Standard deviation is represented thus:

$$\sigma = \sqrt{\frac{\sum (x - \bar{x})^2}{n}}$$

σ = lower case sigma
 Σ = capital sigma
 \bar{x} = x bar

Analysis of Research Questions

Research Question 1: What are the factors responsible for students' attitude towards SIWES?

Table 2: Mean response of male and female students' attitude towards SIWES?

S/N	Item	SA		A		U		D		SD		Total		Remarks
		M	F	M	F	M	F	M	F	M	F	M	F	
1	The instruction received in school was related to the practice in industry	16	15	5	4	-	-	-	-	-	-	21	19	Agreed
2	I learned about the latest development in my course through SIWES.	15	13	6	6	-	-	-	-	-	-	21	19	Agreed
3	SIWES gives me a good opportunity of relating my theoretical knowledge to practice.	17	13	4	6	-	-	-	-	-	-	21	19	Agreed
4	The time I spent in industry was especially valuable for learning how a firm works.	13	11	8	8	-	-	-	-	-	-	21	19	Agreed
5	My knowledge of I.T. was valuable in giving me an idea of industrial management.	12	12	8	3	1	-	-	-	-	4	21	19	Agreed
6	The time I spent in industry was an unwelcome distraction from my studies.	8	10	10	4	1	4	2	1	-	-	21	19	Agreed
7	I was given helpful instructions about the work I did.	15	12	4	7	2	-	-	-	-	-	21	19	Agreed
8	SIWES enhance my ability to tackle technical problems	15	14	6	5	-	-	-	-	-	-	21	19	Agreed
9	I had good remuneration from my industry during my SIWES.	-	-	2	2	-	3	7	6	10	8	21	19	Disagreed
Total = \sum of x		121	110	60	49	4	7	4	1	-	4			
Mean (x)		5.76	5.79	2.86	2.58	0.19	0.37	0.19	0.05	-	0.21			

Agreed Mean response from males = $121 + 60/40 = 4.53$

Agreed Mean response from females = $110 + 49/40 = 3.96$

Standard deviation is represented thus:

Mean total across all categories is 18

Subtract x from the above = 11, then square = 121, SD = 3.03

Research Questions 2: Are there any attitudinal differences of male and female students' towards SIWES?

Table 3: Mean Ratings of attitudinal differences of male and female students' towards SIWES

S/N	Item	SA		A		U		D		SD		Total		Remarks
		M	F	M	F	M	F	M	F	M	F	M	F	
10	There is adequate remuneration by the industries	-	-	1	5	3	-	7	-	10	14	21	19	Disagreed
11	SIWES personnel in school usually delay the cheques meant for students	16	14	3	3	-	2	1	-	1	-	21	19	Agreed
12	School personnel attitude to work does not compared favorably with that of personnel in industries	3	5	6	2	-	-	4	3	8	9	21	19	Disagreed
13	There is no cordial relationship from industrial staffs	4	3	6	4	-	-	-	2	11	10	21	19	Disagreed
14	The quality of work exposed to in industries is low	7	3	4	4	1	2	5	10	4	-	21	19	Disagreed
15	My impression of industry are not in consonance with my experience in industry	5	2	4	3	-	-	-	13	12	1	21	19	Disagreed
16	The bad location of industries hinders interest towards industrial training	2	2	2	3	3	4	3	2	9	8	21	19	Disagreed
17	Low quality of staffs in industries hinders interest towards I.T.	-	-	-	-	3	3	6	2	12	14	21	19	Disagreed
18	The implementation of the SIWES scheme in schools is poor	10	9	4	4	1	-	3	2	3	4	21	19	Agreed
19	Poor motivation of industries staffs affect students attitude to SIWES	12	9	5	10	2	-	2	-	-	-	21	19	Agreed
20	Difficulty in getting a place of attachment affects your attitude towards SIWES.	9	5	7	7	2	1	-	4	3	2	21	19	Agreed
Total = \sum of x		52	45	36	33	18	12	39	55	82	71			
Mean (\bar{x})		2.48	2.37	1.71	1.74	0.86	0.63	1.86	2.89	3.90	3.74			

Agreed Mean response from males = $52 + 36/40 = 2.2$
 Agreed Mean response from females = $45 + 33/40 = 1.95$

Mean total across all categories is 22.18
 Subtract x from the above = 11.18, then square = 124.99
 SD = 3.12

Discussion

The findings on research question one of this study revealed on table two that the entire respondent agreed to SIWES programme being very useful to their study but disagreed to the fact that they did not receive any money from their industrial attachment. Remuneration as noticed in this study plays a great role as factor responding to student's attitude towards SIWES.

The Findings on Research Question two

No correlation exists between the mean response of male and female students on their attitude towards SIWES. This was confirmed in the table 2 above, 4.53 Agreed Mean responses for the male respondents and 3.96 mean rating for the female respondents indicates a difference response in the mean rating of both gender, and at the same time regarding the research questions. This is because both mean ratings were more than the 3.0 benchmarked set for the study. It is therefore, concluded that there is a significant difference between the mean (x) ratings of male and female School of Technical and School of vocational Education students in their attitude towards SIWES. The result from the table 3 also indicates that there is no significant difference in the mean response of School of Vocational and School of Technical Education students as to the problems responsible for the poor attitude towards SIWES. This was indicated in their mean score that is 2.2 and 1.95 for males and females respectively. This implies that both male and female School of Vocational and School of Technical Education students encountered slightly different problems, and also reported or cited similar reasons for their poor attitudinal disposition towards SIWES.

The study thus revealed that students' poor attitude to SIWES regardless of their gender is as a result of lack of political will. This finding supported the report of the Guardian Newspaper (14th April, 2007. p.36). It was noted in the report that there is good receptivity in the manner in which student of higher institutions are been educated, which is contrary to the goals and objectives of SIWES. SIWES though, recommends that stipends (allowance) be given to students undergoing training, but in most cases many industries do not make any of such provision.

The findings also showed that there is no significant difference in the mean rating of respondents as to the problems affecting the attitude of male and female students towards SIWES. In corroborating this findings, Ayua (2006), noted that the SIWES programme is not without its challenges, but the result from this study shows that there is serious determination on the student towards SIWES, which according to Ayua (2006) include inadequate supervision and evaluation of the programme by the Industrial Training Fund (ITF) and the technical institutions, dearth of technology teachers and inadequate funding for the programme. Others includes the weak relationship between the technical schools and the industry, duration of the programme being too short for students to acquire adequate experiences covering the vast course content and weak feedback / follow-up services where the experiences and skills acquired during the attachment can be reviewed and shared. Overall, the SIWES programme has been found to be of immense benefits to the students the schools and the industries so much so that effort needs to be intensified on making it work for better outcomes.

Summary

This study indicates that majority of the students taking part in the Students Industrial Work Experience Scheme (SIWES) are aware of the objectives for which it was established, primarily on issues of relating theory to practice. They were usually eager to take part in the scheme; many consider their experience and time spent in the training as rewarding. Much of what they learned in theory became more real when they themselves practice it. SIWES could therefore be seen as a tool for bringing harmony in technical/vocational education. However, some factors have been found responsible for the poor attitude of students towards SIWES. This study reveals that:

1. The schools still lack adequate infrastructures that might discouraged students further in showing concern for industry's based training. A situation where school workshop and laboratory equipment are ill-maintained or not replaced for years with modern outfit does not augur well for the development of technical and vocational education.
2. Knowledge of I.T. was found to be valuable in giving students an idea of industrial management
3. SIWES enhance student's ability to tackle technical problems.
4. There is still no adequate motivation for students who undergone SIWES; it is found that SIWES personnel in school usually delay the cheques meant for students. All these contribute to the poor attitude of students towards SIWES.

Conclusion

Solving the problem of skill acquisition by graduates of Nigerian Technical/Vocational Education is a reason for the establishment of Students' Industrial Work Experience Scheme. It was planned to be a bridge between educational institutions and industrial employers with the latter providing general and specific occupational skills and knowledge. This research indicates that the SIWES objectives are being achieved, although, there are some constraints such as lack of industrial type of equipment, which result in student's poor attitudinal disposition to the programme.

It should be of note that student attitude toward SIWES had improved over time, regardless of challenges on ground.

However, if the scheme is not adequately implemented, it becomes difficult for graduates of the system to secure employment in the occupations or make a smooth transition from school to work. Thus, based on the findings of this study, we conclude that both the school (tertiary institutions) and the employers in industries should harmoniously enhance and motivate students' interest towards the Students' Industrial Work Experience Scheme in order for them to become relevant and vital to the economic development of the country.

Recommendations

The operation of SIWES lies on the proper supervision. Thus, it becomes necessary that something must be done at the operational level to enhance adequate functioning of the programme. In line with these findings, the following recommendations are made:

1. ITF should ensure the regular visitation of the ITF officers to Supervising Agencies Institutions, Employers and students on attachment.

2. The log-book issued to students at attachment by institutions must be checked and signed by the institutions' and ITF Supervisors responsible during supervision not in their offices at the end of attachment.
3. All the institutions involved should be organizing orientation courses in collaboration with the ITF for their students prior to their attachment with the attendance made mandatory for the students accepted for SIWES and ITF staff.
4. ITF should be providing insurance cover to students on attachment and improve on paying students promptly and supervisors allowances for motivation.
5. Both SIWES coordinators, ITF agencies, and Area office should institute their machinery to quicken the vetting of students log-books.
6. The Banks should speed up their action the clearing of cheques issued to avoid unnecessary delay.
7. Students on attachment must carefully record all training activities and other assignments in the log-book daily, complete ITF Form 8 and submit them to ensure proper assessment which is used in payment of their allowances.
8. Incompetence in workplace is related to the kind or quality of training in the school. To improve on the scheme's implementation, students should be placed in industries relevant to their fields of study.
9. The school workshops and laboratories should be well-equipped with similar industrial outfits to provide good background for successful industrial experience.
10. Furthermore, Industrial and Business Organizations (with more than 25 employees as stipulated in Section 6 of Decree No.47 of 1971) should be statutorily required to pay at least 10% of annual profits to ITF to improve its financial position.
11. For effective supervision of the programme, qualified Full-time Coordinators with good public relations skill should be employed by the institutions. This will improve the degree of cooperation between Industries and Schools. SIWES. Such studies may use opinion polls of parents.

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