STUDENT PERCEPTION OF INDUSTRY-BASED SUPERVISOR IN DELTA AND EDO STATES.

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ABSTRACT

The study investigated the perception of students on the services rendered by the industry-based supervisors. The purpose was to determine the extent to which the industries were meeting the training needs of students. Students were asked to rate the industry-based supervisors on services they are expected to provide as part of Students' Industrial Work Experience Scheme (SIWES). The 360 respondents consisted of 200 males and 160 females. Data were collected and analysed using Means and t-test. The findings from the study indicated low rating on aspects of skill development as well as level of cooperation of the supervisors. Implications of these findings were highlighted and recommendations made based on the findings.

INTRODUCTION:

The Students Industrial Work Experience Scheme (SIWES) is a skill development programme designed to prepared students of Universities, Polytechnics / Colleges of Technology and Colleges of Education for the industrial work situation they are likely to meet after graduating. It is a programme that uses the work environment to expose students to work methods and provide needed experience in handling equipment and machinery that may not be available in educational institution. The Federal Government, the Industrial Training Fund (ITF), the collaborating agencies – National University Commission (NUC), the National Board for Technical Education (NBTE), employers of labour and institutions, manage the SIWES programme. The primary purpose of the scheme is to promote and encourage the acquisition of skills in industry or commerce with view to generating a pool of indigenous trained manpower, sufficient to meet the needs of the economy (ITF, 1994). In 1994, a total of 146 institutions in Nigeria participated in industrial attachment (SIWES), which involved 49,718 students. The population of student participants rose to 57,433 in 1995 and 66,623 in 1996 (Aragba-Akpore & Ogidan, 1997).

The Students Industrial Work Experience (SIWES) is part of an academic programme, which provides students the opportunity to apply academic theory to real work situations in business, industry, government and other related human services. On-the-job experiences for students must be planned and supervised by the College-based and industry-based supervisor so that each contributes to the education of the students. The employers, the institutions and the students must play their roles effectively in order to have successful SIWES programme. This is a tripartite relationship and the success of the scheme is dependent on the industry, the college and students.

In recent years, there has been growing concern about the quality of services provided by employers to students on industrial attachment. Some employers see students on industrial attachment as a burden to the organization. Hence, they assign irrelevant work to students while others do not give them opportunity to work with industrial machines, equipment and facilities (Okoh, 1994. Olawunmi, 1994) It is important to note that the role assigned to the employers in the management of SIWES programme are:

(i) to assist the institutions in the preparation of job specifications for the approved courses for SIWES,
(ii) to accept students for industrial attachment as stipulated in ITF Decree No.47 as amended (up to date),
(iii) to provide welfare services e.g. medication and pay for hospitalization of students while on attachment whenever the need arises,
(iv) to participate fully in the assessment of programmes / students by completing the necessary instruments – e.g. ITF form 8 and log books,
(v) to allow students have access to the use of company's facilities
(vi) to appoint an industrial supervisor to supervise students on attachment.

(Industrial Training Fund, 1994:5)

The employers (both public and private) occupy critical position in the success of the SIWES programme. Okoh (1994) argued that employers constitute the operational theatre of the skills acquisition while other bodies largely play ancillary roles and support services. They provide to placements which students use for learning experiences and skill acquisition. Hence, the cooperation of the employers particularly the companies is an essential condition for successful operation of the SIWES.

The purpose of this study therefore was to investigate perceived effectiveness of the industry-based supervisors. The findings of the study will assist the bodies involved in the management of SIWES programmes. It will provide direction or suggestions to the ITF and others concern with the planning and operation of the SIWES. It will be useful to policy makers in formulating suitable policies concerning SIWES.

To carry out the research, five research questions were posed and one hypothesis postulated. The study sought answers to the following questions:

1. What areas do industry-based supervisors need improvement?
2. To what extent do industry supervisors provide opportunities for skill acquisition and development?
3. What are the safeties measures adopted by supervisors for students while on industrial attachment?
4. What methods do the supervisors employ in teaching manipulated skills?
5. What are the supervisors 'dispositions to students' assessments?

The study further tested a hypothesis formulated thus:

H_{01} There is no significant difference between the mean scores of male and female students on their perception of the industry based supervisors ($P < 0.05$)

METHODOLOGY

The geographical area of the study was Delta and Edo states.

POPULATION AND SAMPLE

The population for the study was made up of all undergraduate students who participated in industrial training at the Delta and Edo State Universities during the 1995/96 academic year. The respondents were selected using stratified random sampling technique. A total of four hundred students were drawn randomly from each stratum in the population to form the sample. This was made up of 230 male and 170 female students.

INSTRUMENT

The instrument used for this study was "Students Perception of Industry-Based Supervisor Questionnaire" (SPIBSQ). It was developed through review of available literature in cooperative education and the ITF's training guides for the administration of SIWES. The instrument was a scaled questionnaire containing 25 items. It was based on a four point scaled of very effective, Effective, Not effective and Not very effective. The respondents were expected

to tick ( ) the response to each item which best described their experience on the particular item being rated. The initial draft of the SPBSQ was face validated by experts and pilot tested. It was tested for internal consistency by the split-half method. The spearman-Brown prophecy formula was applied as a correction factor. A reliability of coefficient of 0.83 was obtained. Table 1 shows the instrument used for data collection. Items 1-4 in the instrument cover cooperation of industry based supervisors, items 5-8 skill development, 9-13 safety, 14-16 method of instruction, 17 supervision, 18-22 evaluation and 23-25

TABLE I: Student Perception Of Industry-Based Supervisor Questionnaire (Spibsq)

S/N	Item Description	Very Effective	Effective	Not Effective	Not Very Effective
1.	Industry-based supervisor provides students with information about activities at the training station / establishment.				
2.	Assists students to solve problems that confront them.				
3.	Schedules training to meet students needs.				
4.	Consult with incoming students about their educational goals, their career plans and probable chances for achieving them.				
5.	Industry-based supervisor provides opportunities and facilities for students to participate in various industrial activities.				
6.	Applies knowledge of recent technology to train students.				
7.	Provides opportunities for students to become actively involved in the solution of some major problems facing the company.				
8.	Industry-Based supervisor chose job experiences that contributed to my career objectives.				

9.	Provides students with information about health and safety.				
10.	Instructs students in first-aid procedures.				
11.	Explains safety practices along with specific skills.				
12.	Creates consciousness of workshop safekeeping.				
13.	Conducts a systematic and periodic health appraisal of student.				
14.	Industry based supervisor demonstrates method of operating equipment.				
15.	Uses difference instructional strategies.				
16.	Uses written training plans				
17.	Allocates time for students' supervision				
18.	Maintains records of work progress of each student				
19.	Industry based supervisor evaluates students periodically.				
20.	Maintains records of activities of each students at the training station.				
21.	Assessed students overall performance				
22.	Writes his comments in the logbook objectively.				
23.	Industry-based supervisor is friendly and builds up students' interest on the job.				
24.	Recognises students strength and weaknesses				
25.	Protects the integrity of employees				

the interpersonal skills.

DATA COLLECTION AND ANALYSIS

A total of 400 copies of the instrument were sent to the subjects while 360 were correctly filled and returned (females = 160, males = 200). Data were analysed using mean and t-test. Mean scores were used to answer research questions. The mean response was calculated by multiplying the frequency of response with the nominal values of the response category (4 = Very Effective, 3 = Effective, 2 = Not Effective and 1 = Not very Effective). The mean was 2.50. Using the interval scale of 0.05, the upper limit of the cut off point is 2.55 while the lower limit is 2.45. any item that has a mean of 2.55 and above was regarded as being effectively employed by the industry supervisor. Any item that has a mean score below 2.55 was regarded as not effectively employed by the supervisor.

FINDINGS AND DISCUSSIONS

Data for the research question are presented in Table II.

1. Research questions one states "What areas do industry-based supervisors need improvement". Students assessment of industrial supervisors show that items 3, 4, 7 and 13 have mean scores that are less 2.55. It implies that the industry based supervisors are not effective in the following areas:
   a) Scheduling training to meet students needs.
   b) Consulting incoming students about their educational goals, career plans and probable chances for achieving them.
   c) Providing opportunities for students to become actively involved in the solution of some major problems facing the company.
   d) Conducting a systematic and periodic health appraisal of students.

2. Research question two request information on the extent to which industry based supervisors provide opportunities for skill acquisition and development. The analyses in Table II show that:
   a) they provide opportunities and facilities for students to participate in industrial activities.
   b) they apply knowledge of recent technology to train students
   c) they chose job experiences that contributed to students' career objectives.

3. The third research question deals with safety. Safety simply means being safe or free from danger or situations that can cause harm or injury. Safety in industry concern prevention of injury to personnel and prevention of damage to equipment and environment through pollution. Items 9 – 12 on Table II show that the supervisors care about students safety to a certain degree.

a) They provide information about health and safety
b) They instruct students in first-aid procedures
c) They explain safety practices along with specific skills and
d) They create consciousness of workshop safe keeping.

Nevertheless, the items have low ranking when compared to the ranking of other items in the instrument.

4. For the fourth question, items 14 –16 show that the industry based supervisors employed good methods of instruction such as (a) demonstration, (b) use of different instructional strategies and (c) use of written training plans. The application of appropriate teaching method is essential for communication between the supervisors and the

TABLE II: Students Perception Of Industry-Based Supervisors

Items	Very Effective	Effective	Not Effective	Not very Effective	CWS	X	Rank
1	180	136	20	24	1192	3.31	4
2.	120	184	40	16	1128	3.13	7
3.	72	124	104	60	868	2.41	24
4.	56	144	96	64	912	2.53	22
5.	96	180	48	36	1056	2.93	13
6.	100	140	68	52	1008	2.80	16
7.	76	100	112	72	900	2.50	23
8.	120	148	52	40	1068	2.97	11
9.	104	120	72	64	984	2.73	17
10.	112	80	100	68	956	2.65	21
11.	88	136	84	52	980	2.72	18
12.	68	156	92	44	968	2.69	19
13.	68	92	116	84	864	2.40	25
14.	132	112	72	44	1052	2.92	14
15.	64	148	108	40	956	2.66	20
16.	80	120	116	44	1276	3.54	1
17.	108	160	56	36	1060	2.94	12
18.	108	120	112	20	1036	2.88	15

19.	128	132	64	36	1072	2.98	10
20.	124	144	64	28	1084	3.01	8
21.	144	152	40	24	1136	3.16	6
22.	204	108	36	12	1224	3.40	3
23.	216	100	40	4	1248	3.47	2
24.	104	168	68	20	1076	2.99	9
25.	132	172	40	16	1140	3.17	5

student learners. In Technology education, demonstration is effective because it enables students to observe procedures and techniques that illustrate specific skills, principles or concept.

5. On the fifth research question, the industrial based supervisors are disposed to assess students on industrial attachment..
   a) They maintain records of work progress of students
   b) They evaluate students periodically
   c) They maintain records of activities of each students
   d) They assess students overall performances and
   e) They record their comments in the log book objectively

These items (18 – 22) have high mean scores as indicated in Table II. However, there are areas of significant differences between the mean scores of male and female students who participated in the study. The differences are significant in seven items (2,6,7,17,18,19 and 24). Data presented in Table III reveal that the computer t-values for 7 items are significant ($P < 0.05$).

The differences may be attributed to the differences in background, disposition and work setting of students.

TABLE III: Comparison Of The Ratings Between Male And Female Students On Effectiveness Of Industry Based Supervisors.

Items	Male X_1	Female X_2	t-value	Remark
1.	3.3	3.25	0.57	
2.	3.24	3.0	2.89	S
3.	2.60	2.54	0.55	
4.	2.47	2.60	-1.31	
5.	2.92	3.0	-0.85	
6.	264	3.0	-3.50	S
7.	2.40	2.63	-2.10	S

8.	2.98	2.95	0.32	
9.	2.78	2.68	0.91	
10.	2.74	2.54	1.67	
11.	2.73	2.72	0.1	
12.	2.73	2.65	0.82	
13.	2.45	2.32	1.23	
14.	2.81	3.02	-1.95	
15.	2.60	2.73	-1.38	
16.	2.58	2.77	-1.93	
17.	2.00	3.13	-3.49	S
18.	2.98	2.77	2.22	S
19.	2.88	3.10	-2.21	
20.	3.06	2.94	1.25	
21.	3.20	3.17	0.28	
22.	3.42	3.38	0.48	
23.	3.45	3.43	0.24	
24.	2.81	3.19	-4.53	S
25.	3.16	3.18	-0.24	

N = 360
df = 358
Critical Value at 5% level = 1.96
S = Significant
X_1 = Mean Score of Male Students
X_2 = Mean Score of Female Students

CONCLUSION AND RECOMMENDATION

This paper focused on students perception of industry based supervisors in the light of employers roles under SIWES. The welfare services provided to students on industrial attachment were ranked low (17,18,19,21, and 25). The paper considered employers as important factor in the implementation of SIWES. In order to achieve the objectives of SIWES, it is recommended that the ITF should organize orientation programme for industrial supervisors to update their knowledge on methods of operating SIWES programme, roles of employers and methods of discharging their responsibilities effectively.

For further research, it is suggested that the study should be disciplines/fields of study about their industrial based supervisors. (Such as Agriculture, Engineering and Technology, Environmental Sciences, Medical Sciences and Education). Further research should be conducted to find out how supervisors perceive students on industrial attachment based on specific duties they are to perform in the SIWES programme.

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