STUDENT'S PERCEPTION OF INDUSTRIAL WORK EXPERIENCE

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ABSTRACT

The purpose of this study was to determine the perception of students on selected aspects of their Industrial work experience. The questionnaire was administered to Business and Technical Education students in Delta State University, Abraka. The collected data were analysed and reported as description of students' responses on their exposure and experiences during the student's Industrial Work Experience period. Some recommendations were made to improve the student's industrial work experience for prospective technical and business education teachers.

INTRODUCTION

One of the aims of technical education is to foster the acquisition of technical knowledge and vocational skills which could lead to agricultural, industrial, commercial and economic development (National Policy on Education, 1981:28). One of the ways of making this possible is to expose students to the required practical experiences through the Student's Industrial work Experience Scheme (SIWES). The SIWES is a skill development programme which was designed to expose and prepare students for the industrial working situation. The programme uses the work environment to expose students to work methods and provide needed experiences in handling equipment and machinery that may not be available in educational institutions (Industrial Training Fund, 1986). The programme is for students in Universities, Polytechnic/Colleges of Technology and Colleges of Education who are studying engineering, technology, environmental studies, agriculture and Home economics (ITF, 1992).

The benefits of Industrial Work Experience to students, institutions and employers have been examined by many educators (Balmer, 1988; Iverson and Jorgensen, 1987; Tyler, 1981: Mason, Haines and Furtado, 1981; Evans and Herr, 1978; Stadt and Gooch, 1977). Considering the advantages of cooperative education, Meyer, Crawford and Klaurens (1975;8) remarked:

> Through such program, a meaningful work experience is combined with formal education enabling students to acquire knowledge, skills and appropriate attitudes. Such program removes the artificial barriers which separate work and education and, by involving educators with employers, create interaction whereby the needs and problems of both are made known. Such interaction makes it possible for occupational curricular to be revised to reflect current needs in various occupations.

Studies have however revealed the need to evaluate co-operative education programmes in order to determine the worth of the programme (Wentling, 1980; Evans and Herr, 1978). One of the ways to identify the areas of strength and weakness of the programme is through the feedback from students. The way students perceive the SIWES is more likely to have affected participation in it. Since they are directly involved in Industrial Work Experience Programme, the findings will give the co-ordinators and implementors of the programme some insight into the problems of students as regards Industrial Work Experience and the benefits they derive from it. The study will assist institutions, employers and ITF in planning meaningful programmes that would help to achieve the objectives of SIWES. This study was therefore designed to investigate students perception of the Industrial Work Experience. This study sought answers to the following questions:-

1. What are student' perception of Industrial Work Experience?

2. What areas of Industrial Work Experience need improvement?

The study further tested an hypothesis formulated thus:

HO_1 There is no significant difference between the mean rating of technical and business education students on their perception of Industrial Work Experience.

METHODOLOGY

Population

The population for the study composed of 254 Business and Technical education students who have had Industrial work Experience in Delta State University. It comprised of 88 business and 166 technical education students.

Sample

The sample consisted of 103 randomly selected students representing 36 Business Education and 67 Technical Education Students.

Instrument

The instrument for data collection is a questionnaire titled "Students' Industrial Work Experience Questionnaire(SIWES). The SIWES contained 31 items grouped into seven categories. The instrument was made of three main sections. Section A contained general questions on demographic data such as gender, extent of participation, level in school, course of study, period/length of participation in SIWES. Section B and C contained four-point likert type scale: Strongly Agree, Agree, Disagree and Strongly Disagree was used for Section B while Section C used the scale structured as follows: 4 = Very Often, 3 = Often, 2 = Seldom, 1 = Not at all. The instrument was face validated by two placement officers, two teacher educators, four graduates of Vocational Education and two measurement and evaluation specialists. It was pilot tested to

establish the reliability. This yielded a correlation coefficient of 0.87 using the Cronbach's Alpha (α). This was considered adequate.

Technique of Data Collection and Analysis

The instrument was administered personally by the researcher and all the questionnaire distributed were correctly filled and returned. The data were anlaysed using means, standard deviations and t-test. Specifically, the first and second research questions were analysed by computing the mean scores and standard deviation for each item on the questionnaire. A cut-off point was determined by finding the mean of the nominal values assigned to the options. 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 response with a mean of 2.55 and above was regarded as appropriate or beneficial to the students. The null hypothesis was tested using t-test at the 0.05 level of significance.

Findings:

The findings of the study indicate that students of the Delta State University benefited from the Industrial Work Experience Scheme in the following areas:

1. Knowledge acquisition and skill development.
2. Exposure to adequate industrial safety practices.
3. Opportunity to practice on employer's facilities and equipment.
4. Adequate supervision by industrial-based supervisor.
5. Development of interpersonal skills.

These indicates that the University-Industry Cooperation provided opportunities for youth to participate in the world of work, gain understanding of the work experience while acquiring academic competencies in the University. As a result,students find greater meaning in their studies because there has been close relationship between theory and practice.

2. Two broad areas of Industrial work experience need improvement. These are (1) Student Welfare and (2) Supervision by College-based supervisors.

3. Comparison of the perception of the two groups of students involved in the study showed that they differed in a number of items considered. Table 1 presents the results of differences in perception of Industrial Work Experience between technical and business education students.

Table 1
Comparison of Responses of Technical and Business Education Students

S/No	Items	Technical X_1	Business X_2	Calculated t-value
	Knowledge and Skill Development			
1	The Job I did called for higher skill than I have	3.29	2.77	2.26*
2	The work was relevant to the training provided in school	3.64	3.62	0.09
3	I acquired understanding of employment requirements and opportunities	3.29	3.69	-1.09
4	work experiences contributed to the attainment of career objectives	3.36	3.31	0.27
	Safety			
5	My employer was responsive to my safety needs	3.21	2.69	1.36
6	Had opportunity to perform tasks under adeequate safety standards	2.93	3.00	-0.19
7	Personal protective equipment was provided for my safety	2.86	2.08	1.96*
8	Safety conditions in my training station was adequate	3.07	1.54	3.19*
	Welfare			
9	My employer paid me during the SIWES period	2.00	1.15	-0.33
10	My employer provided accommodation during the training period	1.50	1.15	0.99
11	My employer provided mid-day meal	2.14	2.15	-0.02
12	My employer provided transporation	2.00	2.00	0.00
	Practice on Employers' Facilities and Equipment			
13	Operation of machines and equipment.	2.43	3.38	-3.17*
14	Constriction projects with available materials and equipment	2.07	2.38	-0.77
15	Maintenance of machine and equipment	2.64	2.15	1.19
16	Performing normal routine operation/services	3.07	3.15	-0.23
	Supervision by College-based supervisor			
17	Supervision of work experience by school staff	2.64	1.19	3.10*
18	Handling of my job problems by the College-based supervisor	1.57	2.08	-1.24
19	Evaluation of my job progress by the college-based supervisor.	2.29	2.54	-0.99

20	Supervision of work experience under actual working condition	2.64	2.15	1.07
21	Periodic visits to the training station (to observe me).	2.14	2.08	0.14
22	Rendering needed assistance with training problems that I had	1.71	1.46	0.66
	Industry-based Supervisor			
23	Provision of available instructional materials and occupational guidance	3.00	3.46	-1.31
24	Welcome questions, and provide explanations when needed	3.50	3.46	0.19
25	Teach safety practices along with the specific skills involved in doing a particular job	3.14	3.08	0.21
26	Periodic evaluation of my progress	3.14	3.31	-0.50
27	Orientation provided by the on-the-job supervisor	3.07	3.08	-0.03
	Interpersonal Needs			
28	Opportunity to work and socialize with others	3.57	3.46	0.54
29	Feeling of independence and self-reliance (which comes with the experience of performing a job)	2.93	3.31	-1.20
30	Feeling of worth and greater self-reliance	3.07	3.46	-1.21
31	Motivation to continue to learn in school because of the real connection between in-school learning and work requirements	3.57	3.23	1.15

*Significant at 0.05 X_1 = Mean score of technical education students X_2 = Mean score of Business education students

It can be observed that Table 2 indicated significant;y different ($P < 0.05$) perception in Industrial Work Experience for item numbers 1,7,8,13 and 17. consequently, the null hypothesis was rejected. The result showed that differences exist in the way students perceived Industrial work Experience programme. These differences were found under the following categories:-

1. Knowledge and skill development
2. Safety
3. Practice on employers' facilities and equipment
4. Supervision by college-base supervisor.

DISCUSSION

The study sought the perception of the respondents on Industrial Work Experience Programme and identified the aspects that need improvement. The result showed that students benefited from knowledge and skill development, safety provisions and use of employers' facilities. This indicates that the University-Industry Cooperation provided opportunities for students to acquire up-to-date information concerning latest concepts, procedures and equipment used in business and industry. This implies that the students were placed in appropriate training station. Also, the employers discharged their responsibilities to the students by providing the effective training and supervision.

Respondents in the study considered "Students welfare" and "Supervision by college-based supervisors" as areas that need improvement. Anyone whose welfare is neglected cannot put in his or her best. The present allowance of N120.00 per month per student is grossly inadequate since most employers did not provide mid-day meal, transportation and accommodation. This might be the cause of poor performance, absenteeism and non-challant attitude of some students during the industrial attachment period. The position of IFT is that it will not entertain any claims by students in respect of transport and accommodation expenses or any special subsistence allowance on this scheme (ITF operational Guidelines, 1986).

The findings of this study showed that the supervision by college-based supervisors was inadequate. This findings is similar to the outcome of other studies in other locations. (Ogbobe, 1989; Odionu, 1987)Evans and Herr (1978) pointed out that travel time for teacher co-ordinators is one problem since it is rarely possible to restrict students to employment in a particular geographic location.

Several reasons are accountable for differences in perception of technical and business education students on some of the items considered. Technical education students found their job more challenging and needed more skill than they possessed. A possible reason is that they handled equipment and materials that are new to them. There was emphasis in personal protective equipment and safety conditions of technical students. A possible explanation is that they used industrial machines that are likely to cause accidents. Realising the negative effect of accidents, they needed safety apparels as well as personal safety devices such as goggles, helmets, gloves and hand shields, hearing protectors and safety shoes.

In this study, it appears that business students had access to more machines and equipment than technical students. Many business operations make use of computers, counting machines, type-writers, copying machines, duplicating machines, collating machines, addressing machines, franking machines, dictating machines and punch card machines for business transactions. The students could have used these facilities on a regular basis for routine services. The results further showed that the college-based supervisors supervised more technical education students than business students. The researcher observed that there were more lecturers in technical education than in business education at the time this study was conducted.

CONCLUSION

The success of SIWES has far-reaching implications for industrial, commercial and economic development in Nigeria. Students who passed through the scheme are more likely to be better prepared for industrial working situation after graduation because the scheme contributed to the attainment of their career objectives. Those who become teachers of technical and business programmes are equipped with up-to-date skills for teaching their course contents effectively. The students they teach will be equipped to deal with the challenges of the work-place as a result of technological advancements.

Based on the findings of this study, it is recommended that

(1) Students should be placed in suitable training stations where they will be remunerated and supervised accordingly.

(2) Business education students should be placed in training stations with adequate safety devices.

This study was limited to the information freely provided by the students on their perception of Industrial Work Experience. For further research, follow-up studies should be conducted to determine how well students' industrial work experience prepared them for the world of work.

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