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## Contributions of SIWES towards Acquisition of Entrepreneurship Skills needed by under Graduates for Self-Employment. Poverty Reduction and Economic Development of Nigeria

**By**

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***Abstract***

*The study was conducted to determine Contributions of SIWES towards Acquisition of Entrepreneurship Skills needed by Graduates for self-employment and Poverty Reduction. A survey research design was used for the study. The population for the study was 1026, while 836 respondents formed the sample for the study. Four research questions were answered while two null hypotheses were tested. The reliability co-efficient obtained using Cronbach Alpha Formula was 0.88. Means and standard deviation were used to answer the research questions while z-test statistics was employed to test the null hypotheses at 0.05 level of significance. The result showed that SIWES contributed in acquiring entrepreneurship Skills needed by Graduates for self-employment and Poverty Reduction. Two null hypotheses tested were not rejected. Some recommendations were made based on the findings of the study, which included that government should provide enough fund to enable SIWES improve the skill acquisition programme. Also other interest groups should assist the SIWES and graduates by providing financial assistance. Furthermore, entrepreneurship courses should be made compulsory in all institutions of higher learning in Nigeria.*

**Keywords***: SIWES,* Entrepreneurship Skills, Self-Employment and Poverty Reduction

**Introduction**

One of the fundamental issues that have consistently attracted the interest and concern of succeeding governments in Nigeria since independence in 1960 is manpower development. The Federal and then Regional governments in Nigeria realized early enough that if the attained independence was to have any meaningful impact on the general well-being of its citizens, it must be complemented by booming economy in order to achieve self-reliance. Oji (2002) opined that the initial efforts aimed at achieving rapid national development were concentrated on the expansion of formal educational institutions to meet the needs of special and vital sectors of the economy. It became increasingly clear, in government, industry and commerce, that growth and economic advancement of the country requires the services of trained workers and professionals who possessed technological skills and executive capacity to provide specialized services for the economy.

Student industrial training was introduced with the aim to make education more relevant to the needs of commerce and industry and in order to bridge the gap between the theory and practice of engineering and technology. Industrial Training Fund Report (2003) stated that in an effort to bridge the gap between theory and practice to engineering and technology in our tertiary institutions, it initiated the Student Industrial Work Experience Scheme in 1973. The scheme was designed to provide the much needed on-the job practical experience for students undergoing all courses that demanded exposure in industrial activities during their training programme.

The student work experience programme which basically prepares students for work has become an innovative phenomenon in the process of manpower development and training in Nigeria. Student Industrial Work Experience Scheme has reached wide dimensions in recent times and all industrial and commercial establishments contribute to make it operational by providing specific skills in form of experience. There are hardly sizable industrial and commercial establishment that are not involved in the scheme. Initially, it was limited to student of technology but, today it covers many disciplines and has become a necessary precondition for the award of NCE, diploma, degrees certificates in special disciplines in most institutions of higher learning in the country. It is a skill training programme designed to expose and prepare students of the University, Polytechnic/Colleges of Technology and Colleges of Education (Technical) to real life situation in the world of work. The objectives of Student Industrial Work Experience Scheme are to:

a. Provide an avenue for students in institutions of higher learning to acquire industrial skills and experience in their course of study, especially in engineering and allied fields.
b. Prepare students for working situations they are to meet after graduation.
c. Expose students to work methods and technique in handling equipment and machinery that may not be available in educational institutions.
d. Make the transition from school to the world of work easier, and to enhance students' contacts for later-day job placement.
e. Provide students, with an opportunity to apply their knowledge in real work situation thereby bridging the gap between college work and actual practice; and
f. Enlist and strengthen employers' involvement in the entire educational process of preparing students in industry. (ITF, 2003).

Okoro (1986) in Oji (2002) stated that industrial training programmes were organized for student in the Universities, Polytechnics and College of Technology in the field of Engineering and Technology, Environmental Studies, Management Sciences and other allied professions and is being funded by Industrial Training Fund (ITF). He stressed that undergraduate students of certain courses have three months of industrial attachment; engineering students have six months while N.C.E (Technical) and other vocational students have four months of industrial attachment while National

Diploma graduate go for one year Industrial Attachment before proceeding for their Higher National Diploma programme. Students Industrial Work Experience Scheme (SIWES) has provided link between education and works also have given opportunity for students to put theory which they receive in classroom into practice in industries.

Oji (2002) opined that the Students Industrial Work Experience Scheme (SIWES) is designed to help technology education students to acquire the much needed on-the-job practical experience, theoretical knowledge, good work attitude and entrepreneurship skills needed for self-employment. Therefore full participation of students in Students Industrial Work Experience Scheme (SIWES) helps them to acquire necessary skills needed for success in employment. Nwachukwu (1996) in Onyia (1997) stated that the lack of pre-requisite skills by job-seekers is largely to blame for the larger number of the graduate unemployment. Against this background therefore, it became pertinent to address Contributions of SIWES towards Acquisition of Entrepreneurship Skills needed by Graduates for Self-Employment and Poverty Reduction.

Therefore, this study sought to find out the contributions of Students Industrial Work Experience Scheme in preparing under graduates for self-employment. Specifically the study sought to:

1. Find out the contributions of Students Industrial Work Experience Scheme (SIWES) to the understanding of the theoretical content of education.
2. Find out ways Students Industrial Work Experience Scheme (SIWES) assists graduates in their acquisition of practical job skills for self-employment.
3. Find out ways by which Students Industrial Work Experience Scheme (SIWES) contributes to the acquisition of good work attitudes for poverty reduction.
4. Find out the ways by which Students Industrial Work Experience Scheme contributes to the acquisition of entrepreneurship skills by graduates.

**Research Questions**

The following research questions were posed to guide the study.

1. What are the contributions of Students Industrial Work Experience Scheme (SIWES) in the understanding of theoretical knowledge by graduates?
2. In what ways does Students Industrial Work Experience Scheme (SIWES) assist graduates in the acquisition of job skills for self-employment?
3. What are the contributions of Students Industrial Work Experience Scheme (SIWES) in the acquisition of good work for poverty reduction?
4. What are the ways Students Industrial Work Experience Scheme (SIWES) has contributed in the acquisition of entrepreneurship skills graduates?

**Hypothesis**

The following hypotheses were tested at 0.05 level of significance.

$H_{o1}$: There is no significant difference in the mean scores/ratings graduates and their supervisors

regarding the practical skills needed for their self-employment.

$H_{o2}$: There is no significant difference in the mean scores/ratings of graduates and their supervisors regarding the work attitudes they needed for self-employment.

**Methods**

Survey design was adopted for the study. Ogbazi and Okpala (1994) state that a survey research design employs questionnaires and interviews in order to determine the opinions, preferences, attitudes and perception of people about the issues. The population for the study comprised of 1026 of the under graduates and their industrial supervisors in Enugu State: comprising of 946 graduates of under and 80 industrial supervisors (Enugu State Ministry of Commerce and Industry, 2006).

Proportionate random sampling was used for drawing the sample size of 816 respondents, made up of 740 under graduates and 76 supervisors. Uzoagulu (1998) opined that the more sample size approaches the population the better for the study. Hence 816 respondents are appropriate for this study 80 percent of the population. The structured questionnaire used is a four point scale of So Much (SM), Much (M), Little (L) and So Little (SL). These response were weighted, thus: 4, 3, 2, 1 respectively. The instruction was face-validated by three experts; two from the Department of Technology and Vocational Education, one from the Department of Measurement and Evaluation State University of Science and Technology, Enugu. Test for the reliability of the instrument was determined using the Cronbach Alpha formula. The result obtained by using the Cronbach Alpha technique for coefficient reliability was 0.88. Mean and standard deviation were used to answer the four research questions. Z-test statistic was used to test the two null hypothesis at 0.05 level of significance. For decision to be reached, the mean of the response scales was calculated, thus, 4+3+2+1:4 = 2.50. Therefore, items with a mean rating of 2.50 and above were regarded as agreed, while those that recorded below 2.50 were regarded as disagreed statements.

Also, the two null hypothesis were tested at 0.05 level of significance, applying z-test statistic for unequal. The decision rule drawn for the null hypothesis was that the null hypotheses would not rejected, if z-calculated value was less than z-critical value of 1.96 at 814 degree of freedom, otherwise it would be rejected.

**Presentation of Results**

**Table I**

**Means and standard deviations of on the contributions of Students Industrial Work Experience Scheme (SIWES) in the understanding of theoretical knowledge by graduates.**

**N1= 740, N2 = 76**

| S/N | Contributions of Students Industrial Work Experience Scheme (SIWES) in the understanding of theoretical knowledge by graduates? | Graduates = 740 | | | Supervisors = 76 | | |
|---|---|---|---|---|---|---|---|
| | | $\overline{X_1}$ | SD1 | RMK | $\overline{X_2}$ | SD2 | RMK |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1. | Principles of generation, transmission and distribution of electrical power | 3.32 | 0.18 | M | 3.24 | 0.58 | M |
| 2. | Working principles of electrical machines e.g. D. C. motors, D.C generators, A.C motors, A.C generators | 2.87 | 0.10 | M | 3.03 | 0.62 | M |
| 3. | Circuit theories e.g. Ohms law, kirchoff law, etc | 2.76 | 0.08 | M | 2.75 | 0.33 | M |
| 4. | Knowledge of magnetism and induction circuits | 3.04 | 0.20 | M | 3.12 | 0.60 | M |
| 5. | Electrical installation and regulations | 3.03 | 0.20 | M | 3.12 | 0.28 | M |
| 6. | The working principles of radio and television | 2.90 | 0.10 | M | 2.82 | 0.32 | M |
| 7. | Telecommunication principles e.g. radiation of wave | 3.20 | 0.19 | M | 3.11 | 0.60 | M |
| 8. | The type of power transformers and their working principles | 3.75 | 0.15 | SM | 2.96 | 0.29 | M |
| 9. | Types of amplifiers and their working principles | 1.47 | 0.12 | SL | 1.45 | 0.39 | SL |
| 10. | Electrical/Electronics measuring instruments e.g. moving coil, moving iron, thermocouple, ammeters, ohmmeters, wattmeter and potential meters. | 3.19 | 0.19 | M | 3.16 | 0.60 | M |
| 11. | Calculation of voltage equation, voltage regulation, three phase transformer and autotransformer | 3.43 | 0.17 | M | 3.21 | 0.59 | M |
| 12. | Semiconductor devices, atomic structure, covalent bonds, n-type, p-type semiconductor | 2.89 | 0.10 | M | 2.86 | 0.31 | M |
| 13. | Transistors, field effect transistors, the junction field effect transistors, static characteristics and integrated circuits | 1.94 | 0.09 | L | 1.95 | 0.29 | L |
| 14. | Workshop calculations and measurements | 3.03 | 0.20 | M | 3.0 | 0.35 | M |
| | Grand Mean | 2.92 | 0.15 | M | 2.83 | 0.43 | M |

Data presented in Table I shows that the grand mean is 2.92 for the graduates while the grand mean for the industrial supervisors is 2.83. Items with their mean responses ranging from 2.76 - 3.38 for the graduates, 2.75 - 3.24 for supervisors reveal that respondents agree that items are the contributions of Student Industrial Work Experience Scheme (SIWES) in the graduates understanding of theoretical knowledge of under. Except for items no's 9 and 13, their means are below 2.5, showing that the respondents disagreed with the items as not being parts of the contributions. The standard deviations for the items in Table 1 ranges from 0.09 - 0.20 and 0.29 - 0.6. This result shows that the respondents mean responses are homogenous and therefore indicates closeness of the mean.

**Table 2**

**Mean responses on the ways Students Industrial Work Experience Scheme (SIWES) assist graduates in the acquisition of job skills for self-employment.**

**N1 = 740, N2 = 76**

| S/N | Questionnaire Item<br>Contributions of SIWES in the acquisition of practical skills by graduate include: | Graduates = 760<br>$\overline{X_1}$ | SD1 | RMK | Supervisors = 76<br>$\overline{X_2}$ | SD2 | RMK |
|---|---|---|---|---|---|---|---|
| 15. | Maintenance of electrical/electronics appliances like television and radio receivers | 3.23 | 0.19 | M | 3.0 | 0.35 | M |
| 16. | Serving of power equipments like power drilling machine, folding machine, riveting machine. | 3.14 | 0.19 | M | 3.07 | 0.62 | M |
| 17. | Designing of electrical wiring diagrams like conduct, surface, duct installation | 2.98 | 0.09 | M | 2.84 | 0.31 | M |
| 18. | Installation of circuit breakers and other electrical protective devices e.g. earth leakage circuit breakers, vacuum breakers. | 3.18 | 0.19 | M | 2.79 | 0.32 | M |
| 19. | Servicing of electrical machines like A.C motors, D.C motors, A.C generators and D.C generators | 3.11 | 0.19 | M | 3.08 | 0.62 | M |
| 20. | Wiring of industrial contactors and power control devices in industries | 3.05 | 0.2 | M | 2.96 | 0.10 | M |
| 21. | Designing and installation of three phase motors starters like star delta connections, direct online | 3.05 | 0.2 | M | 2.99 | 0.29 | M |
| 22. | Installation of power change over system e.g. manual and automatic system | 3.09 | 0.2 | SM | 2.99 | 0.29 | M |
| 23. | Maintenance and servicing of power transformers for electric power transmission and distribution | 1.63 | 0.11 | L | 1.87 | 0.31 | L |
| 24. | Maintenance of air conditioners, refrigerators and other domestic machines | 2.97 | 0.09 | M | 3.01 | 0.63 | M |
| 25. | Installation of electric generating plants for domestic and industrial uses | 2.41 | 0.13 | L | 2.46 | 0.39 | L |
| 26. | Maintenance of telecommunication equipments like satellite dishes and handsets | 2.90 | 0.10 | M | 2.93 | 0.30 | M |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 27. | Rectification of faults in transistors circuits, integrated circuits and semiconductors | 3.21 | 0.19 | M | 3.12 | 0.60 | M |
| 28. | Servicing of electrical appliances like ceiling fan, table fan, electric iron and electric heater | 3.78 | 0.15 | M | 3.54 | 0.52 | SM |
| | Grand Mean | 2.98 | 0.16 | M | 2.90 | 0.40 | M |

Data presented in Table 2 shows that the grand mean for graduates is 2.98 while supervisors is 2.90, item with their mean responses ranging from 2.90 - 3.98 for the graduates, 2.79 - 3.54 for the supervisors thus revealing that the respondents agrees in all the items as ways in which Student Industrial Work Experience Scheme (SIWES) assisted the graduates in the acquisition of practical job skills, except in item 23 and 25 which their mean is below 2.5 which shows that the respondents disagreed with the items as ways the Student Industrial Work Experience Scheme (SIWES) assisted in the acquisition of practical skills by graduates. The standard deviations for the items in table 2 ranges from 0.09 - 0.20 and 0.1 - 0.6 respectively which indicates that the means are close.

**Table 3**

**Mean responses on the contributions of Student Industrial Work Experience Scheme (SIWES) in the acquisition of good work attitudes by the graduates. N 1 = 740, N2 = 76**

| | **Questionnaire Item** | **Graduates = 740** | | | **Supervisors = 76** | | |
|---|---|---|---|---|---|---|---|
| **S/N** | **Contributions of Student Industrial Work Experience Scheme (SIWES) to work attitude** | $\overline{X_1}$ | **SD1** | **RMK** | $\overline{X_2}$ | **SD2** | **RMK** |
| 29. | Competencies and skills are acquired at the end of training thereby creating room for mobility of labour. | 3.78 | 0.15 | SM | 3.22 | 0.57 | M |
| 30. | Organization in work, monitoring of personal output and solution of work related problems | 3.81 | 0.15 | SM | 3.11 | 0.60 | M |
| 31. | Working without unnecessary supervision and accepting genuine criticism from supervisors. | 3.07 | 0.20 | M | 2.90 | 0.30 | M |
| 32. | Co-operative with their supervisors' colleague and constituted authority. | 3.09 | 0.11 | M | 2.97 | 0.29 | M |
| 33. | Perseverance, patience, endurance tolerance and loyalty to employer | 3.23 | 0.19 | M | 3.14 | 0.60 | M |
| 34. | Following accepted safety practices for self, co-workers, equipment and facilities | 3.08 | 0.20 | M | 3.09 | 0.61 | M |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 35. | Keeping accurate records of supplies, tools, machines and equipments. | 3.17 | 0.19 | M | 3.20 | 0.59 | M |
| 36. | Dressing as required on the job, presenting good personal appearance and neatness | 3.78 | 0.15 | SM | 3.70 | 0.49 | SM |
| 37. | Avoidance of wasting time, materials and supplies. | 3.09 | 2.02 | M | 3.13 | 0.60 | M |
| 38. | Interest in work, workers and respect for the right of other workers. | 2.06 | 0.15 | L | 1.89 | 0.30 | L |
| 39. | Acceptance of instruction, correction, direction and regulation | 3.72 | 0.15 | SM | 3.67 | 0.49 | SM |
| 40. | Development of self confidence, resourcefulness and attention to details | 3.01 | 0.11 | M | 3.07 | 0.61 | M |
| 41. | Accuracy and quality of work, productiveness and efficiency in work. | 3.12 | 0.20 | M | 3.75 | 0.48 | SM |
| 42 | Systematic approach to work and proper management of electrical/electronics workshop | 1.24 | 0.14 | SL | 1.22 | 0.44 | SL |
| | Grand Mean | 3.09 | 0.16 | M | 3.0 | 0.50 | M |

Data presented in Table 3 shows that the grand mean is 3.09 for the graduates while that supervisors is 3.0. The result in all the items reveals that the means of subjects responses ranges from 3.01 - 3.78 and 3.07 - 3.75 for the graduates and industrial supervisors respectively. However, item nos. 38 and 42 have means less 2.50, revealing that the graduates have low interest in work and management of workshop. The standard deviations for the items in table 3 ranges from 0.11 to 0.20 and 0.29 to 0.61 respectively, indicating that their means are close. .

**Table 4**

**Mean responses on the ways SIWES has helped graduates in the acquisition of practical skills.**

**N1 = 740, N2 = 76**

| **S/N** | **Questionnaire Item**<br>**Ways of SIWES assisted graduates in the acquisition to practical skills include:** | **Graduates = 740**<br>$\bar{X}_1$ | **SD1** | **RMK** | **Supervisors = 76**<br>$\bar{X}_2$ | **SD2** | **RMK** |
|---|---|---|---|---|---|---|---|
| 43. | Adopting current research in technical education and industries | 1.97 | 0.09 | L | 2.0 | 0.28 | L |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 44. | Ability to update knowledge and skill through workshops, conferences, seminars, in-service training, etc. | 2.39 | 0.13 | L | 1.59 | 0.36 | L |
| 45. | Adequate qualification from schools, colleges, tertiary institution (W.A.S.C, G.C.E, H.N.D. B.Sc, etc) | 2.24 | 0.20 | L | 2.11 | 0.47 | L |
| 46. | Obtaining financial assistance from banks, personal savings, funds, etc | 2.11 | 0.15 | L | 2.01 | 0.48 | L |
| 47. | Drawing of comprehensive business plan. | 1.82 | 0.10 | L | 1.86 | 0.30 | L |
| 48. | Display of innovation. | 3.15 | 0.19 | M | 3.17 | 0.60 | M |
| 49. | Exhibit managerial skill up to date in transactions and desire to achieve | 2.01 | 0.15 | L | 2.11 | 0.47 | L |
| 50. | Development of self employment skills like self confidence and independent. | 2.79 | 0.10 | M | 2.92 | 0.30 | M |
| 51. | Security of infrastructures example shops/lands. | 2.24 | 0.14 | L | 1.99 | 0.28 | L |
| 52. | Ability to take risks in business. | 1.84 | 0.1 | L | 1.91 | 0.30 | L |
| 53. | Identifying exploitable business opportunities. | 1.92 | 0.09 | L | 1.93 | 0.29 | L |
| 54. | Human relations qualities like friendship, ability to satisfy customers. | 3.63 | 0.16 | L | 3.53 | 0.52 | M |
| 55. | High sense of honesty and self discipline. | 3.08 | 0.20 | M | 3.13 | 0.60 | M |
| 56. | Development of organizational skills e.g. good planning and implementation. | 2.81 | 0.10 | M | 2.66 | 0.35 | M |
| | Grand Mean | 2.43 | 0.14 | L | 2.35 | 0.4 | L |

Data presented in Table 4 shows that the grand mean for the graduates is 2.41 and supervisors 2.35. The result in all the items reveals that the means of subjects' responses ranges from 1.91 - 3.63 and 1.59 - 3.53 for graduates and industrial supervisors respectively. This implies that the respondents disagreed with all the items as contributions of Student Industrial Work Experience Scheme (SIWES) in the acquisition of entrepreneurship skills, however, for items nos. 48, 54, 55 and 56 respondents agreed that they do contribute to students' entrepreneurship acquisition. The standard deviations range from 0.09

and 0.20 and 0.28 to 0.6 respectively which show closeness in their mean responses.

**Table 5**

**Z-test comparison of the mean responses of Under and their industrial supervisors regarding the practical skills possessed by the graduates for employment in Enugu State.**

| Category | $\bar{X}$ | SD | N | D.F | Standard Error | Z Cal | Z Critical | Decisions |
|---|---|---|---|---|---|---|---|---|
| Graduates | 2.98 | 0.16 | 740 | 814 | 0.046 | 1.73 | 1.96 | N.S |
| Supervisors | 2.9 | 0.40 | 76 | | | | | |

N.S = Not significant, S = Significant

The z-test analysis presented in Table 5 shows that the calculated z-test value is 1.73 while the critical z-test value is 1.96 at 0.05 level of significant and 814 degree of freedom. Since the calculated z-value is less than the critical z-value, the hypothesis is not rejected thus showing that subjects do not differ significantly in their responses regarding the practical skills possessed by the graduates for self employment in Enugu State.

**Table 6**

**Z-test comparism of the mean responses of Under graduates and their industrial supervisors on their work attitudes for self employment in Enugu State.**

| Category | $\bar{X}$ | SD | N | D.F | Standard Error | Z Cal | Z Critical | Decisions |
|---|---|---|---|---|---|---|---|---|
| Graduates | 3.09 | 0.16 | 740 | 814 | 0.058 | 1.55 | 1.96 | N.S |
| Supervisors | 3.0 | 0.50 | 76 | | | | | |

N.S = Not Significant, S = Significant

The z-test analysis presented in Table 6 shows that the computed z-test value is 1.55 while the critical value is 1.96 at 0.05 level of significant and 814 degree freedom. This result indicates that z-test calculated value is less than the value of z-test critical, which implies that the null hypothesis $H_{o2}$ is not rejected and that the subjects do not differ significantly in their responses.

**Discussions of Result**

Regarding, research question one, the findings revealed that Student Industrial Work Experience Scheme (SIWES) contributed greatly in the graduates understanding of theoretical knowledge of under; understanding of principle of generation, transmission and distribution of electrical power, working principles of electrical machines, understanding of circuit theories, knowledge of magnetism and induction circuit, electrical installation and regulations, telecommunication principles, types of power transformer and their working principles, electrical measuring instruments, understanding of voltage equation, workshop calculations and semiconductors devices, these findings were in agreement with the findings of Onyia (2006) which revealed that Student Industrial Work Experience Scheme (SIWES) equipped the graduates of under with theoretical knowledge and skills that improved employability potentials. However, the study showed that the graduates of electrical electronics technology lacked adequate understanding of amplifier, transistors and integrated circuits. The finding agreed with Onyia (1997) which indicated that the graduates were not adequately taught computer programming and industrial electronics.

On research question two, findings showed that Student Industrial Work Experience Scheme (SIWES) assisted the under graduates to acquire practical job skills, maintenance of electrical/electronic appliances, servicing of power equipments, designing of electrical wiring diagrams, installation of circuit breakers, servicing of electrical machines, wiring of industrial contactors, designing and installation of three phase motor starters, installation of power changeover, maintenance of air conditioner and refrigerators, etc. These findings were in consonance with Elobuike (1995) who perceives Student Industrial Work Experience Scheme (SIWES) as an effective method of instruction which not only helps in the acquisition of occupationally oriented knowledge, skills and attitudes but to have the opportunity to apply these skills in the world of works.

With regards to research question three, result showed that the respondents agreed that graduates acquired good work attitudes like attendance to work regularly on time, organization of work and monitoring of personal out put, working without unnecessary supervision, and accepting genuine criticism from supervisors, co-operative with supervisors, colleagues and constituted authority, perseverance, patience, endurance, tolerance and loyalty to employer, following accepted safety practice, keeping accurate records, dressing as required on the job, avoidance of wasting time and materials, accepting instruction, correction, direction and regulation, development of self confidence, accuracy and quality of work productiveness and efficiency in work.

With respects to research question four, result showed that the respondents disagreed that the graduates obtained financial assistance from banks, personal savings and from friends. Exhibition of managerial skills, up to date in transaction and desire to achieve, security of infrastructures and identifying exploitable business opportunities. However, the respondents agreed that graduates displayed innovation, skill development of self employment skills and sense of honesty. The findings revealed that the contributions of Student Industrial Work Experience Scheme (SIWES) to the graduates acquisition of entrepreneurship skill was very poor, the result was in agreement with Onyia (2006) which showed that electrical electronics technology education graduates lacked some entrepreneurship skills that hindered their effective participation in self-employment. It therefore stands to show that under graduates lacked these vital and salent features of entrepreneurial skills which would make it difficult for them to establish a self-enterprise.

On hypothesis $H_{o1}$, the null hypothesis which stated that there was no significant difference in their mean responses was not rejected. This implies that there were no significant difference in the responses of the graduates and their supervisors. This result was in line with Oji (2002) which showed that Student Industrial Work Experience Scheme (SIWES) provided an avenue for the acquisition of necessary

skills for the world of work, the finding also agreed with Industrial Training Fund (2003) which revealed that Student Industrial Work Experience Scheme (SIWES) exposed recipients to correct work methods and techniques in handling equipment and machinery in the work places. This is the reason for no variation in the mean responses of the graduates of under and their industrial supervisors on the contribution of Student Industrial Work Experience Scheme (SIWES) in their practical skill acquisition.

Regarding hypothesis $H_{o2}$, the null hypothesis which stated that there was no significant difference in their mean responses was not rejected. This indicated that there was no significant difference in the responses of the graduates and their supervisors. This result agreed with Uzoagulu (1997) which posited that the students learning environment should be related to anticipate work place after graduation to ensure their suitability for work. This result is therefore agreed with the finding of Industrial Training Fund (2003) which described Student Industrial Work Experience Scheme (SIWES) as a training programme designed to expose participants to real work situation. Accordingly, the result revealed that the graduates of electrical electronics technology education develop good work attitudes during Student Industrial Work Experience Scheme (SIWES), hence no variation in the mean responses on the work attitude they acquire for self-employment.

**Conclusions**

Student Industrial Work Experience Scheme (SIWES) has contributed in many ways to the understanding of theoretical knowledge of electrical/electronics technology, acquisition of practical job skills, good work attitude, entrepreneurship skills to be utilized by undergraduates for their self-employment. The graduates were better disposed to become employers of labour rather than mere employees in Enugu State.

**Recommendations**

Based on the result of this study, the following recommendations were made:

1. Government should provide enough fund to enable Student Industrial Work Experience Scheme (SIWES) improve in their self-acquisition programme.
2. Government, relatives and interest groups should assist the Student Industrial Work Experience Scheme (SIWES) and undergraduates in skills acquisition to improve their self-employment. This could be done through financial aids, provision of infrastructure and making bank loans accessible to them as it is applicable to graduates of agriculture.
3. Educational Institution Programme Planners, policy makers and other agencies should design a programme to support Student Industrial Work Experience Scheme (SIWES) in acquisition of entrepreneurship skill. Entrepreneurship course should be made compulsory in all institutions of higher learning in Nigeria

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