

Assessment of Importance and Challenges of Student Industrial Work Experience Scheme (Siwes) By Final Year Students of Library and Information Science (LIS) University of JOS, Nigeria

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Abstract: This study was carried out to assess the importance and challenges faced by final year students of Library and Information Science(LIS) University of Jos at their designated Places of Industrial Training (IT).

To facilitate generation of data, the Study explored the following: Personal evaluation of the importance of SIWES by final year students, Extent to which the importance of SIWES was acquired, frequency of I.T place, Students' satisfaction level, Students' evaluation of the Organization where they did their Training, nature of tasks performed during Industrial Training, duration of IT, supervision of LIS students by supervisors from University of Jos, challenges faced by LIS Students during I.T and the solutions proffered to the challenges. These Ten objectives gave raise to Ten Research Questions.

The target population of the Study consisted of all final year LIS students of 2018/2019 academic session. One Hundred and One (101) respondents, were drawn from population size of One Hundred and Thirty-Six (136) students and was used as Sample size for the Study.

The research design adopted was survey design. Self-developed questionnaire was employed as the research instrument for the study. Data gathered were analyzed using percentages, mean statistics, standard deviation and hypotheses were tested using ANOVA.

Major findings show that SIWES was evaluated by LIS Students as "extremely important," the extent to which LIS students acquired the importance of SIWES was at "A very large extent," Financial constraint and inadequate computers during ITF were major challenges or inhibiting factors to the importance of SIWES. Finally, this study recommended that LIS Students should be paid some stipend by Federal Government, adequate computers should be provided by organizations where LIS Students go to do their IT and supervisors should visit students more than once at their places of IT for proper monitoring and assessment for optimal results of this important exercise.

Keywords: Students' Industrial Work Experience Scheme(SIWES), Library and Information Science, Industrial training fund, University libraries, Nigeria

1. Introduction

The practice of Librarianship involves a lot of practical and theoretical knowledge put together to perform designated tasks. Some of these tasks keep evolving with current information tools. In order to be relevant in this modern information age, Library and Information Science(LIS) students must develop themselves with vast practical(training) and theoretical knowledge to acquire the needed skills to perform tasks efficiently in the nearest future. Necessary skills to know how to use Information, Communication and Technology(ICT) tools is a prerequisite to modern day Library personnel due to its enormous advantages. The application of ICT in libraries has widened the scope of librarianship, conferred new roles on libraries, and has

placed more demands on the ability of librarians. According to (Omekwu, 2005[1]), digital technology has revolutionized the information acquisition, storage, and retrieval processes. This is very true as Librarians can now store information via the web with the help of electronic information gadgets such as computers for easy access and retrieval anywhere in the world. In the same vein, (Igbinsosa, 2007[2]), stated that advances in ICT have changed the paradigm of librarians work from information storage to one of access to world literature resources using electronic databases, the internet, and other digital resources.

One of such skills where students are trained to acquire vast practical knowledge to compliment the theoretical aspects they had learned in school is via the Students' Industrial Work Experience Scheme (SIWES) or Industrial Training (IT). These two are often times used interchangeably. Industrial attachment is as an on the job training in which a student learns while working within a normal working environment, using the actual tools and actually doing the job (Leong, 2004[3]). The Student Industrial Work Experience Scheme (SIWES) is the accepted skills training programme established by Industrial Training Fund (ITF) in 1973 in institutions of higher learning in Nigeria that forms part of the approved academic requirement in various degree programmes. The headquarters of ITF is in Jos, Nigeria. The duration of IT among Library and Information Science (LIS) departments vary from one university to another in Nigeria. For Example, undergraduate students studying Library and Information Science in the University of Jos spend maximum of 12 Weeks equivalent to Three (3) months for SIWES while their counterparts in Ahmadu Bello University spend 24 weeks equivalent to six (6) months. The Sciences such as Plant Science and Technology, Microbiology, Zoology e.t.c spend six months in university of Jos. Library and Information Science Students of University of Jos are not paid Allowance as their SIWES duration is less than six (6) months as Allowances are paid to only those who carry out their IT for a maximum period of 24 weeks and above. The Student Industrial Work Experience Scheme (SIWES) is mandatory and serves as a prerequisite for the award of National Diploma and Bachelor of Library and Information Science (BLIS)/ Bachelor of Science (BSc), Masters' Degree in Library and Information Science, Engineering, Technology, Environmental, Applied Science, Medical Science, Pure Science, and Agriculture. It is not limited to university and polytechnic students alone but also students from Colleges of Technology, Colleges of Agriculture and Colleges of Education as well. It is curriculum based which must be met by LIS and students in various degree programs before graduation. The Course credit unit ranges from three (3), four (4) to six (6) credits respectively depending on the institutions and subject areas of study. During SIWES, students are taught both theoretical and given tasks to perform (practical), record their experiences/observations in LOG BOOKS (Work Sheets) provided by the parent institution on daily basis and submitted weekly or fortnight. Their written experiences are graded by the supervisors of the organizations where LIS students do their IT and later submitted to supervisors of the parent institution who come on scheduled visitation and observe LIS students carry out their tasks and grade them as well for final assessment. Owe to the numerous importance of SIWES, University of Jos and many other institutions of higher learning in Nigeria has SIWES Coordinating Office which handles all affairs relating to this special programme. This is in confirmation with (Akerejola, 2008[4]) that tertiary institutions in Nigeria are rising to the clarion call of establishing a SIWES unit. Hence, it is important that each institution of higher learning operates a unit that will monitor, facilitate and enhance the scheme.

Although the durations and course credit units of SIWES differ from one institution to another, the scheme is tripartite as it involves Federal Government of Nigeria (employee of labor), students of different institutions, and the Industrial Training Fund (ITF). SIWES operates and governed by the same set of objectives laid down by ITF which all participants must adhere to.

The Student Industrial Work Experience Scheme (SIWES) provide an avenue for students in higher institutions of learning to acquire industrial skills and experience in their course of study, prepare students for the industrial work situation they will meet after graduation, expose students to work methods and techniques in handling equipment and machinery that may not be available in their institutions, make the transition from school to the world of work easier and enhance student's contacts for job placement, provide students with an opportunity to apply the knowledge in real work situation to their training thereby bridging the gap between theory and practice and enlist and strengthen employer's involvement in the entire education process and prepare student for employment in industry and commerce. (Industrial Training Fund, 2013[5]).

SIWES help students to establish a connection between the theory and the practical happenings in the world of work. Training and education compliments one another as important form of learning for effective professional development. Training gives the recipient the competencies required to do a job or carry out function. It is the process where knowledge, skills, abilities and attitudes (KSAs) required in doing a specific

job or carrying out a specific function are transferred from one person to another or to a group of persons (Mafe, 20004[6]). SIWES helps to bridge the gap between these two forms of learning geared towards effective professional development on the part of trainee. Two basic forms of learning are education and training both of which are essential to the productive world of work and the functioning of the society (Mafe, 2009[7]). This is supported by (Ugwuanyi, Chijioke and Ezema, 2010[8]), that training is a key factor that enhances efficiency and expertise of the workforce. Furthermore, they stated that education has to do with giving systematic instruction to students in a formal setting like the schools, colleges or universities. It is that process where knowledge and information are acquired facilitating understanding by the recipients. The recipient of education acquires knowledge and capabilities in his/her specific area of civilization. The Student Industrial Work Experience Scheme (SIWES) prepares students for labour markets and has become an innovative phenomenon in human resources development and training in Nigeria today. On the whole, when LIS students participate as supposed in SIWES programme, they acquire skills and competencies through training which remains with them in the near future. The knowledge and skills acquired through training are internalized and become relevant when required to perform job (Olusegun, 2009 [9]). SIWES is an inevitable programme to professional development of LIS students (Wodi and Dokubo, 2009[10]).

However, there are several challenges faced by students who undergo industrial training. Some of these challenges are: students choosing places of attachment that is close to their house even if the organization is irrelevant to their field of study, non-payment of SIWES allowance, ill equipped place of attachment among others. Further issues emerged are inadequate computers and other necessary tools for training, unwillingness of management of industries where students are placed to release some vital and needed information has pose challenges to LIS students

In their cross-country study of engineering education in three countries, Afonja et al, (2005[11]) concluded that, placement of students for industrial work experience is problematic. They observed that the situation is less serious in Zimbabwe than in Nigeria and Ghana as employers are reluctant to take on students. Other problems encountered during the SIWES include Supervision of interns has been cited as being problematic. Qualified staff to supervise the interns has been in short supply (Gault, Leach and Duey, 2010[12]). Universities should be responsible to ensure that internships are offering meaningful learning experiences for their students. The issue of students' treated badly at their places of IT attachment, too much pressure and limited time to grasp all they are taught, inadequate computers and other needed tools for IT students, and the problem of unwillingness of management of organizations to release some vital information to LIS students on IT all pose challenge

These problems have prompted the researchers to assess the importance and challenges of Students' Industrial Work Experience Scheme(SIWES) by final year students of Library and Information Science(LIS) university of Jos, Nigeria to ensure students acquire the importance of SIWES training as supposed.

1.2 Objective of the Study

The main objective of the study was to assess the benefits gained by Library and Information Science Students during their SIWES training.

Specifically, the study sought to:

1. assess the benefits gained by Library and Information Science Students during their industrial training.
2. find out the extent to which final year Library and Information Science Students gained these benefits while receiving their industrial training.
3. investigate the nature of task carried out by final year by Library and Information Science Students during their industrial training.
4. assess the challenges faced by final year Library and Information Science Students during their industrial training.
5. determine the solutions to the challenges faced by final year Library and Information Science Students during their industrial training.

1.3. Research Questions

1. what are the benefits gained by final year Library and Information Science Students during their industrial training?
2. what is the extent to which final year Library and Information Science Students gained these benefits while receiving their industrial training?

3. what is the nature of task carried out by final year Library and Information Science Students during their industrial training?
4. what challenges did final year final year Library and Information Science Students face during their industrial training?
5. what are the solutions to the challenges faced by final year Library and Information Science Students during their industrial training?

1.4 Hypotheses

Two hypotheses below guided the study:

1. There is no significant difference in the personal evaluation of the importance of SIWES programme of male and female LIS students
2. There is no significant difference in the satisfaction of SIWES programme of male and female LIS students.

1.5. Problem Statement

The Student industrial work experience scheme (SIWES) plays a vital role bridging the gap between theories learnt in the class and the actual practice. It is the only scheme established in institutions of higher learning in Nigeria for the training of LIS and other students toward their future endeavours in different organizations they may find themselves. In spite of the many importance of SIWES in professional development of students, challenges such inadequate computers and other necessary information gadgets at places of Training, inadequate supervision of students, hoarding of necessary information from LIS students' trainee, too much during IT, ill treatment of LIS students, financial constraints among others too numerous to mention. It is then imperative to assess the importance and challenges LIS students face during their student industrial work experience scheme (SIWES) in their designated places of attachment.

1.6 Significance of the study

It is no doubt SIWES is one of the many programme of Industrial Trust Fund (ITF) established to bridge the gap between theoretical and practical (training) needed for Library and Information Science (LIS) students' relevance in the near future. When LIS students are on IT, some of what they were taught in the classroom become so real as they would have the opportunity to perform tasks on their own with many tools. Example: They must have been taught about Classification Scheme but never had the chance of using the scheme on their own to catalogue books. However, during SIWES programme, they are avail the opportunity to use the Library of Congress Heading Classification Scheme to do manual cataloguing, use the Three figure Cutter Sanborn table, fill the work sheet, write the Class mark on the catalogued material in organized format, and enter such information into the work station/computer and as such; the experience gained would remain with them for long so that even in real job situation after graduation, they can confidently perform such task with great results. This is very significant.

Findings from LIS students' reports can help SIWES Coordinator of Department of Library and Information Science, University of Jos identify the challenges and gaps of the scheme and subsequently, these gaps would be bridged by proffered strategies which would in turn help improve the mandatory programme.

Library and Information Science (LIS) students can use the reports of their SIWES as valuable research experience as this information are evidence-based and gives first-hand insights in preparing them for the role of academic librarian-researchers. Academic librarians in almost all universities in Nigeria carry out research which are evidence based and are published. This research data of academic librarians helps build collaborative community and help students learn how to write their own papers. It also helps librarians and the parent institution gain recognition both locally and sometimes internationally as most of such researches are downloaded in the institutional repositories electronically and view by different people around the world.

This study is significant as Library and Information Science (LIS) students have to be multi skilled to increase their employability; thus experiences gained during SIWES makes them acquire such skills. Some graduates of Library and Information Science who would not be able to secure a white collar jobs can use their acquired skills and become self-employed to earn a living. This reduces unemployment among our youths and increase national economic growth.

The custodian of SIWES which is ITF can use this type of evidence-based research to know if the objectives of the programme is met or not. This can be used as guideline to improve the programme.

Finally, findings of evidence-based research like this can be used by ITF for budget allocation from the Federal Government of Nigeria who funds the organization.

2. Review Literature

The Students' Industrial Work Experience Scheme (SIWES) targets the trainee through well-organized practical process which leads to acquisition and effective use of such knowledge gained helps to do a job faster with optimal results when the need arises. Acquisition of practical skills involves the development of new skills, practice and way of doing things or performing a task, usually gained through training or experience (Idoko, 2014[13]).

The Industrial Training Fund(ITF) introduced the SIWES as one of its many programme to provide students with the opportunity to get familiar and know how to handle equipment and machinery in industry to enable them acquire prerequisite practical knowledge and skills since many Nigerian employers were of the view that graduates of institutions of higher learning lacked adequate practical background experience necessary for employment. Muhammad and Rufai (2014 [14]) stated that in the contemporary Nigeria, quality of technical college graduates has been a major source of concern by most employers who express their dissatisfaction on the level of technical skills possessed by these technical college graduates. On the other hand, Ojokuku et al. (2015[15]) quipped that SIWES bridges the existing gap between theory and practice and expose students to necessary skills for smooth transition from the classroom to the world of work.

According to Elijah (2017 [16]), the Students' Industrial Work Experience Scheme (SIWES) as skills training programme designed to expose and prepare students of universities and other tertiary institutions for the industrial work situation they are likely to meet after graduation. While Abraham-Ibe (2015[17]) is of the opinion that students' work experience scheme is an educational programme where students participate in work activities while still attending school. This gives students the opportunity to be directly involved and be part of the actual work situation outside the classrooms. Mafe (2010[18]) added that 'someone who has been exposed to both the theoretical and practical methods and the hands-on experience' would and should be better in the real work. Cole(1997[19]) added that training in skills is related to exposure to job challenges and competence level of the job holder.

The reports of Cherry et al (2011[20]) based on a 4-year survey of students enrolled in Management of Information Science Program revealed that students perceived theoretical components as essential, while some students did not see the value of theoretical components and feel there is an imbalance between theory and practice, especially when students have little or no previous library experience. In the same vein, a general survey among practicum students in Malaysia, showed that students' expressed dissatisfaction with the level of collaboration between the university/faculty and the industry (Mohd Ridzuan, 2006[21]). They further expressed a desire to be given the right kind of training which can only be achieved if the industry is given sufficient guidelines by the university/faculty. While the findings of Ogbuanya, et al (2018[22]) indicated that the professional experience of the respondent did not influence their responses on evaluating the effectiveness of Students Industrial Work Experience Scheme (SIWES) Programme to ensure quality of technical, vocational education and training in Technical Colleges in Lagos State.

Some challenges such as difficulty in securing places of IT, non-payment of allowance to LIS students on IT to motivate them, inadequate computers in some organizations of IT amongst others all hinder LIS students' benefits of acquiring the objectives of establishing the SIWES. Taiwo (2016[23]) asserts that securing a placement in an organisation that has modern equipment and facilities is very difficult; therefore, most students settled for organisations that are not well equipped for the training.

The effective industrial attachment is an indispensable component of developing students' competences in their areas of specialization. furthermore, this process can only achieve desired results if students are placed under the supervision of experienced and seasoned personnel (Arikewuyo, 1999[24]).

3. Research Methodology

3.1. Research Design

The design used for the study was a descriptive survey design as it sought to obtain the opinions of the final year Library and Information Science students on the importance and challenges they faced during their Student Industrial Work Experience Scheme(SIWES).

3.2. Population and Sampling Techniques

The entire population of the study comprised of 136 Final year students in Faculty of Education, Department of Library and Information Science, University of Jos during the 2018/2019 academic session. Sample size of 101 was drawn from the entire population size of 136 using (Yamane, 1976[25]). Yamane formula is given as: $n = \frac{N}{1 + N(e)^2}$, where n=Population under study, e=margin of error(0.05) at 95% confidence limit. This was used to get the sample size of One hundred and one (101) from the entire population of 136 LIS students.

3.3 Data Collection Techniques and Instrument

The survey instrument was the researchers' self-designed questionnaire relevant to LIS students. The questionnaire was divided into two sections. The first section comprises the demographic variables of respondents like gender, age and marital status. The second part has to do with LIS students been asked to evaluate parameters on SIWES relevant to them (on a 5 point Likert scale anchored @ strongly agree and strongly disagree). This part consists of 30 SIWES attributes. Using a modified 30 item questionnaire, data was collected from a population size of 136 LIS students. Secondary data were collected through document analysis.

3.4. Data Analysis and Presentation

The data were presented in the form of tables. Descriptive statistics (Mean and decision) were used to answer the research questions. A mean of 2.50 and above indicate agreement with the statement while a mean of below 2.50 indicates disagreement. A one-way ANOVA was further conducted at an alpha level of 0.05 to determine any differences in the Hypotheses testing. This was used to further explore findings from the data so that a thorough analysis could be done.

4. Analysis and Findings

4.1. Demographic variables of respondents

Table 1: Demographic Distributions of Respondents

| Variables | Frequency | Percentage |
|-----------------------|-----------|------------|
| Gender | | |
| Male | 53 | 52.5 |
| Female | 48 | 47.5 |
| Total | 101 | 100.0 |
| Age(years) | | |
| 20-24 | 47 | 46.5 |
| 25-29 | 23 | 22.8 |
| 30-34 | 17 | 16.8 |
| 40-44 | 8 | 7.9 |
| 45 and above | 6 | 6.0 |
| Total | 101 | 100.0 |
| Marital status | | |
| Single | 76 | 75.2 |
| Married | 23 | 22.8 |
| Window/widower | 2 | 2.0 |
| Total | 101 | 100.0 |

Table 1 reveals that 53 (52.50%) of the respondents were male while 48 (47.5%) were female. 47(46.5) indicated age range of 20-24, 23(22.8%) indicated 25-29 years, 17(16.8) are in the age range of 30-34, 8(7.9%) indicated 40-44years, and 6(6.0%) are in the age range of 45 and above. 76 (75.2%) of the respondents were single, 23 (22.8%) married, 2 (2.0%) were widows/widowers.

Research Question 1: How would you personally evaluate SIWES programme?

Table 2: Importance of SIWES program

| S/N | Statement | Little importance | Importance | Very importance | Extremely importance | Mean | Std |
|----------------------|---|-------------------|-------------|-----------------|----------------------|------|------|
| 1. | Acquiring of some industrial skills & experience | 1 1.0% | 19 18.8% | 43 42.6% | 38 37.6% | 3.17 | 0.76 |
| 2. | Gaining of general work experience | - - | 21 20.8% | 39 38.6% | 41 40.6% | 3.20 | 0.76 |
| 3. | Acquiring of confidence for future job | 1 1.0% | 33 32.7% | 35 34.7% | 32 31.7% | 2.97 | 0.83 |
| 4. | Familiarization with new technologies and Knowing how to handle Equipment | 8 7.9% | 25 24.8% | 45 44.6% | 23 22.8% | 2.82 | 0.87 |
| 5. | Application of theoretical knowledge in work situations | 1 1.0% | 17 16.8% | 35 34.7% | 48 47.5% | 3.29 | 0.79 |
| Weighted mean = 3.09 | | | | | | | |
| Standard mean = 2.50 | | | | | | | |

Table 2 shows the weighted mean of 3.09 out of the 4.00 maximum obtainable score, which is higher than the standard mean of 2.50. This indicates that the respondents personally evaluate SIWES programme as extremely important. Furthermore, out of the 5 items used to measure personal evaluation of the importance of SIWES programme, 3 items contribute to this extremely importance nature of SIWES programme. The 3 items are rated as follow: Application of theoretical knowledge in work situations (3.29>3.09) is ranked highest among the mean scores, followed by gaining of general work experience (3.20>3.09), lastly, acquiring of some industrial skills & experience (3.17>3.09).

Research Question 2: To what extent did you acquire the importance of SIWES?

Table 3: Extent of acquiring the importance of SIWES programme

| S/N | Statement | A very large extent | A large extent | A limited extent | A very limited extent | Mean | Std |
|----------------------|--|---------------------|----------------|------------------|-----------------------|------|------|
| 1. | Acquiring of some Industrial skills and experience | 32 31.7% | 53 52.5% | 12 11.9% | 4 4.0% | 3.12 | 0.77 |
| 2. | Gain general work experience | 21 20.8% | 62 61.4% | 16 15.8% | 2 2.0% | 3.01 | 0.67 |
| 3. | Confidence for future job | 19 18.8% | 64 63.4% | 16 15.8% | 2 2.0% | 2.99 | 0.66 |
| 4. | Familiarization with new technologies and know how to handle Equipment | 17 16.8% | 56 55.4% | 25 24.8% | 3 3.0% | 2.86 | 0.72 |
| 5. | Apply theoretical knowledge in real work situations | 39 38.6% | 45 44.6% | 11 10.9% | 6 5.9% | 3.16 | 0.85 |
| Weighted mean = 3.03 | | | | | | | |
| Standard mean = 2.50 | | | | | | | |

Table 3 shows that the weighted mean of 3.03 out of the maximum obtainable score of 4.00, which is higher than the standard mean of 2.50. This implies that the respondents acquired the importance of SIWES to a large extent. The Table Reveals Apply theoretical knowledge in real work situations (3.16>3.03) and Industrial skills and experience (3.12>3.03) were the most acquired as indicated by the respondents.

Research Question 3: What was the nature of work you did during SIWES?

Table 4: Nature of Work performed during SIWES.

| S/N | Statement | SA | A | D | SD | Mean | Std |
|-----|--|----------------------|-------------|-------------|-------------|------|------|
| 1. | Interesting Work | 35 34.7% | 59 58.4% | 1 1.0% | 6 5.9% | 3.22 | 0.74 |
| 2. | Filling of cataloguing Worksheet, Accessioning numbers to new books and lending/borrowing of books at the Circulation Unit | 28 27.7% | 55 54.5% | 16 15.8% | 2 2.0% | 3.08 | 0.72 |
| 3. | Routine work like Shelving and Shelf-Reading | 57 56.4% | 40 39.6% | 4 4.0% | - - | 3.53 | 0.58 |
| 4. | Packaging and Sorting out of books in Acquisition Unit | 38 37.6% | 38 37.6% | 21 20.8% | 4 4.0% | 3.09 | 0.86 |
| 5. | Meaningless work | 7 7.0% | 12 11.9% | 34 33.7% | 48 47.5% | 1.82 | 1.02 |
| | | Weighted mean = 2.95 | | | | | |
| | | Standard mean = 2.50 | | | | | |

Table 4 indicates the weighted mean of 2.95 out of the obtainable 4.00 maximum score, which is higher than the standard mean of 2.50. Based on the weighted mean score, the nature of work is rated as follow: Routine work like shelving and shelf-reading (3.53>2.95) is ranked highest among the mean scores, followed by interesting work (3.22>2.95), packaging and sorting out of books in Orders Units (3.09>2.95), lastly, filling of cataloguing Worksheet, accessioning numbers to new books and lending/borrowing of books at the Circulation Unit (3.08>2.95). While Meaningless work (1.82<2.95) is ranked least out of the nature of work, respondents did during their SIWES programme.

Research Question 5: How often did you go to your place of SIWES Programme?

Table 5: How often LIS students frequent their place of SIWES Programme

| Response | Frequency | Percentage |
|-------------------|-----------|------------|
| Every day | 88 | 87.1 |
| Once in two days | 5 | 5.0 |
| Twice a week | 3 | 3.0 |
| Once a week | 1 | 1.0 |
| Once in two weeks | 4 | 4.0 |
| Total | 101 | 100.0 |

Table 5 reveals that 88 (87.1%) of the respondent indicate that go to their place of SIWES programme every day, 5 (5.0%) indicate once in two days, 3 (3.0%) indicate twice a week, 1 (1.0%) indicates once a week, while 4 (4.0%) indicate once in two weeks. This implies that majority of the respondents often go to their place of SIWES programme every day.

Research Question 6: Was the SIWES duration enough?

Table 6: Duration of SIWES programme

| Response | Frequency | Percentage |
|----------|-----------|------------|
| Yes | 59 | 58.4 |

| | | |
|-------|-----|-------|
| No | 42 | 41.6 |
| Total | 101 | 100.0 |

Table 6 shows that 59 (58.4%) of the respondent were of the view that SIWES programme duration is enough, while the remaining 42 (41.6%) indicate that it was not enough. This means that more than average of the respondents was of the view that SIWES programme duration is enough.

Research Question 7: Were you visited by University of Jos SIWES Supervisor?

Table 7: SIWES programme visitation by University of Jos Supervisor

| Response | Frequency | Percentage |
|----------|-----------|------------|
| Yes | 100 | 99.0 |
| No | 1 | 1.0 |
| Total | 101 | 100.0 |

Table 7 indicates that 100 (99.0%) of the respondent were visited by their SIWES supervisor while 1 (1.0%) was not visited. This indicates that majority of the respondents were visited during their SIWES by their University supervisors.

Research Question 8: How many times did your University of Jos Supervisor visit you?

Table 8: Frequency of visitation by University of Jos Supervisor at LIS students' place of SIWES

| Response | Frequency | Percentage |
|---------------------|-----------|------------|
| Once | 9 | 8.9 |
| Twice | 10 | 9.9 |
| Thrice | 82 | 81.2 |
| Not once/Not at all | 0 | 0.0 |
| Total | 101 | 100.0 |

Table 8 reveals that 82 (81.2%) of the respondents indicate that they were supervised by their university supervisors thrice at their SIWES organisation, 10 (9.9%) indicate twice, while the remaining 9 (8.9%) indicate once during their SIWES programme. This implies that majority of the respondents were supervised by their university supervisors three times at their SIWES organisation.

Research Question: What is your level of satisfaction with SIWES Programme?

Table 9: Level of satisfaction of SIWES programme

Table 9 shows that 24 (22.9%) of the respondents were extremely satisfied with the SIWES programme, 62 (59.0%) were satisfied, 10 (9.5%) were slightly satisfied, while 5 (4.8%) were not satisfied with the SIWES programme. The implication is that LIS students were satisfied with their SIWES programme

| Response | Frequency | Percentage (%) |
|---------------------|-----------|----------------|
| Extremely satisfied | 24 | 22.9 |
| Satisfied | 62 | 59.0 |
| Slightly satisfied | 10 | 9.5 |
| Not satisfied | 5 | 4.8 |
| Total | 101 | 100.0 |

Research Question 10: How would you rate your SIWES Organization?

Table 10: Rating of SIWES organization by LIS students

| S/N | Statements | SA | A | U | D | SD | Mean | Std |
|-----|---|-------------|-------------|-----------|-----------|--------|------|------|
| 1. | A friendly meeting Place between IT Students and Management | 43 42.6% | 53 52.5% | 3 3.0% | 2 2.0% | - - | 4.36 | 0.64 |
| 2. | A place where | 32 | 58 | 7 | 4 | - | 4.17 | 0.72 |

| | | | | | | | | |
|----|--|-------------|-------------|-----------|-------------|-------------|------|------|
| | management keeps us informed about things they wanted us to know | 31.7% | 57.4% | 6.9% | 4.0% | - | | |
| 3. | A good place for Training and Personal Development | 32 31.7% | 58 57.4% | 5 5.0% | 4 4.0% | 2 2.0% | 4.13 | 0.83 |
| 4. | A place where management is not interested in IT students feelings | 2 2.0% | 15 14.9% | 5 5.0% | 41 40.6% | 38 37.6% | 2.03 | 1.10 |
| 5. | A place where I am satisfied working with | 34 33.7% | 51 50.5% | 8 7.9% | 7 6.9% | 1 1.0% | 4.09 | 0.88 |

Table 10 indicates respondents' ratings of organizations they did their SIWES programme as follow: A friendly meeting Place between IT Students and Management (4.36) is ranked highest among the mean score, followed by A place where management keeps us informed about things they wanted us to know (4.17), A good place for Training and Personal Development (4.13), A place where I am satisfied working with (4.09), lastly, a place where management is not interested in IT students' feelings (2.03).

Research Question 11: What challenges did you face during your SIWES Programme?

Table 11: Challenges faced by LIS students during SIWES programme

| S/N | Statement | SA | A | U | D | SD | Mean | Std. |
|----------------------|---|-------------|-------------|-----------|-------------|-------------|------|------|
| 1. | Financial Constraint | 60 59.4% | 34 33.7% | - - | 7 6.9% | - - | 4.46 | 0.82 |
| 2. | IT students were treated badly | 7 6.9% | 6 5.9% | 4 4.0% | 50 49.5% | 34 33.7% | 2.03 | 1.12 |
| 3. | Too much pressure & Short time to grasp all the practical that was taught | 8 7.9% | 44 43.6% | 8 7.9% | 21 20.8% | 20 19.8% | 2.99 | 1.33 |
| 4. | Inadequate Computers and other needed tools as IT Students were too many | 27 26.7% | 41 40.6% | 5 5.0% | 18 17.8% | 10 9.9% | 3.56 | 1.32 |
| 5. | Unwillingness of Management to release some vital and needed information to IT Students | 13 12.95 | 28 27.7% | 3 3.0% | 46 45.5% | 10 9.9% | 2.88 | 1.28 |
| Weighted mean = 3.18 | | | | | | | | |
| Standard mean = 3.00 | | | | | | | | |

Table 11 shows the weighted mean of 3.18 out of the 5.00 maximum obtainable score, which is higher than the standard mean of 3.00. This implies that the respondents agreed they faced the highlighted challenges during their SIWES programme. Table 11 reveals that out of the 5 items used to measure challenges faced during SIWES programme, Financial Constraint (4.46 > 3.18) is ranked highest among the mean scores, and lastly, Inadequate Computers & other needed tools as IT Students were too many (3.56 > 3.18) contributed most to this level of agreement. While the remaining 3 items were also viewed as challenges faced during their SIWES programme.

Research Question 12: What are the proffered solutions to the challenges you faced during your SIWES Programme?

Table 12: Proffered Solutions to the challenges LIS students face during SIWES

| S/N | Statement | SA | A | D | SD | Mean | Std |
|----------------------|---|-------------|-------------|-----------|--------|------|------|
| 1. | LIS IT Students should be paid Allowance by Federal Government | 69 68.3% | 28 27.7% | 4 4.0% | - - | 3.64 | 0.56 |
| 2. | IT students should be treated Nicely in their Place of Attachment | 40 39.6% | 59 58.2% | 2 2.0% | - - | 3.38 | 0.53 |
| 3. | Practical works should be spread out and taught at the pace of IT Students | 51 50.5% | 50 49.5% | - - | - - | 3.51 | 0.50 |
| 4. | More Computers and other needed tools should be provided for IT Students | 34 33.7% | 64 63.4% | 3 3.0% | - - | 3.31 | 0.52 |
| 5. | Unwillingness of Management to release some vital and needed information to IT Students | 29 28.7% | 68 67.3% | 4 4.0% | - - | 3.25 | 0.52 |
| Weighted mean = 3.42 | | | | | | | |
| Standard mean = 2.50 | | | | | | | |

Table 12 indicates the weighted mean of 3.42 out of the 4.00 maximum obtainable score, which is higher than the standard mean of 2.50. This implies that the respondents agreed to the suggested solutions to the challenges they faced during SIWES programme. Table 12 reveals that out of the 5 items used to measure solutions to the challenges faced during their SIWES programme, 2 items contribute to this level of agreement. The 2 items are rated as follow: LIS IT Students should be paid Allowance by Federal Government (3.64>3.42) is ranked highest among the solution mean scores, and lastly, Practical works should be spread out and taught at the pace of IT Students (3.51>3.42), While the remaining 3 items are viewed as solutions to identified challenges faced during their SIWES programme.

Testing of hypotheses

Ho1: There is no significant difference in the personal evaluation of the importance of SIWES programme of male and female students

Table 13: Difference in the personal evaluation of the importance of SIWES programme of male and female students

| Gender | N | Mean | Std.D | df | t | P-value | Remark |
|--------|----|-------|-------|----|--------|---------|--------|
| Male | 53 | 15.38 | 3.25 | 99 | -0.249 | 0.804 | N.S |
| Female | 48 | 15.52 | 2.45 | | | | |

N.S denotes not significant at 0.05 level of significance

Table 13 shows that there is no significant difference in the personal evaluation of the importance of SIWES programme of male and female students ($t = -0.25$, $df = 99$, $p > 0.05$). Hence hypothesis 1 was not rejected. This means that gender (male and female) of the students has no influence on their personal evaluation of the importance of SIWES programme.

Ho2: There is no significant difference in the satisfaction of SIWES programme of male and female students
Table 14: Difference in the satisfaction of SIWES programme of male and female students

| Gender | N | Mean | Std.D | df | t | P-value | Remark |
|--------|----|------|-------|----|-------|---------|--------|
| Male | 53 | 3.06 | 0.75 | 99 | 0.244 | 0.808 | N.S |
| Female | 48 | 3.02 | 0.73 | | | | |

N.S denotes not significant at 0.05 level of significance

Table 14 indicates that there is no significant difference in the satisfaction of SIWES programme of male and female students ($t = 0.24$, $df = 99$, $p > 0.05$). Hence hypothesis 2 was not rejected. This indicates that gender (male and female) of the students has no influence on satisfaction of SIWES programme.

4.2 Discussions

Demographic Distributions of Respondents

Table 1 of this study revealed that more male(53) LIS students participated in the SIWES programme as compared to their female(48) counterpart. Majority of the respondent are in the age range of 20-24 as indicated by 47(46.5%). 76 (75.2%) of the respondents are single, 23 (22.8%) married, 2 (2.0%) were widows/widowers. This confirms the result of Bernard et al (2014[26]) work on Issues of the Industrial Training Programme of Polytechnics in Ghana where the authors found that the demographic information of respondents where majority (67.4%) were males and 32.6% females. The ages of the students also indicated that most of the respondents (67.4%) were within 20-24 years while a minority of 7.8% felled within 15-19 years. The remaining 24.8% were above 25 years.

Importance of SIWES program

The findings of Table 2 shows that LIS students personally evaluated SIWES to be extremely important. They rated 3Out of 5 items provided to evaluate the extreme importance of SIWES in the following order: Application of theoretical knowledge in work situations, gaining of general work experience and lastly, acquiring of some industrial skills and experience. This assertion was supported by Raimi (2015[27]) who in her study found out that students were able to learn about development in their course of study through their participation in SIWES that it added a good deal to their knowledge, and they were able to apply the knowledge gained at school to the real life situation. This is also corroborated with Tambuwal (2012 [28]) that the need for industrial training in our institution today is extremely important because it would improve human resource development in the Nigerian students whose reproductive years are still ahead of them.

Extent of acquiring the importance of SIWES programme

The evidence of Table 3 reveals that LIS students acquired the importance of SIWES to a large extent with Apply theoretical knowledge in real work situations and acquire Industrial skills and experience ranked in order. This agrees with the study of Mafe (2009), who stated that when students conscientiously participated in SIWES they acquire skills and competencies leading to their professional development. This is also supported by Oyeniyi (2011[29]), who stated that students' Industrial Work Experience Scheme (SIWES) affords students the opportunity of familiarizing and exposing themselves to the needed experience in handling industrial equipment and machinery that are not usually available in their institutions.

Nature of Work performed during SIWES.

Table 4 summarizes that majority of LIS students did routine work like shelving and shelf-reading, interesting work, packaging and sorting out of books in Acquisition Unit, filling of cataloguing Worksheet, accessioning numbers to new books and lending/borrowing of books at the Circulation Unit, while only few indicated meaningless work and this was ranked least. This contradicts the findings of Matamande et al (2013[30]) who bemoaned the challenges on attachees that, some students end up doing menial jobs and never really do the essentials of the job which are unrelated to their trades.

How often LIS students go to their place of SIWES Programme

Table 5 reveals that majority 88 (87.1%) of LIS students go to their places of SIWES every day, 5 (5.0%) indicated once in two days, 3 (3.0%) indicated twice a week, 1 (1.0%) indicates once a week, while 4 (4.0%) indicated once in two weeks.

Duration of SIWES programme

Table 6 shows that 59 (58.4%) indicated that SIWES programme duration is enough, while the remaining 42 (41.6%) indicated that it was not enough. The implication is that more than average of LIS students was of the view that SIWES duration was enough. This contradicts the result of Zerihun (2019[34]) who found that about 104 (51%) students said the internship duration was not enough whereas 99 (49%) of students said it was enough. Furthermore, the author explained that the above expression shows that the internship programme was too short to cope up with the objectives. For some of the students, they were unable to do basic works due to unavailability of material, too many students in the company (to solve this problem the company arranged them in shift), no construction was completed within such a short period of time and even too short time to compile project.

SIWES programme visitation by University of Jos Supervisor

The findings of LIS students' response on whether they were visited by their University of Jos supervisors in Table 7 indicates that 99 (99.0%) of the respondent were visited by their SIWES supervisor while 1 (1.0%) was not visited. This indicates that majority of the respondents were visited during their SIWES by their supervisors. This is in consonance with the opinion of Arikewuyo (1999) that Industrial attachment is an indispensable component of developing students' competences in their areas of specialization and the process can only achieve desired results if students are placed under the supervision of experienced and seasoned personnel

Frequency of visitation by University of Jos Supervisor at LIS students' place of SIWES

Table 8 reveals that 82 (81.2%) of the respondent indicate that they were supervised by their university supervisors thrice at their SIWES organisation, while 10 (9.9%) indicate twice and the remaining 9 (8.9%) indicate once during their SIWES programme. This implies that majority of the respondents were supervised by their university supervisors three times at their SIWES organisation. This is in line with the view of Mafe (2006) who stated that for a scheme as large as SIWES it is imperative that participants be monitored for effective performance. Lack of supervision of student on training gives room for poor attendance which invariably leads to poor performance and also has a negative impact on the achievement of the objective of the scheme. However, the result of this research contradicts the writing of Ojokuku et al; (2015) "Influence of Students' Industrial Work Experience Scheme on professional development of Library and Information Science Students in South-West, Nigeria where they found that on supervision of the trainees, majority of LIS students asserted that supervision was inadequate.

Level of satisfaction of SIWES programme

Based on the research findings on level of LIS students' satisfaction with SIWES, 24 (22.9%) indicated that they were extremely satisfied, 62 (59.0%) were satisfied, 10 (9.5%) were slightly satisfied, while 5 (4.8%) were not satisfied with the SIWES programme. The result on Table 9 implies that LIS students were satisfied with their SIWES programme.

Rating of SIWES organization by LIS students

The responses of Library and Information Science Students on rate the organization they did their SIWES Programme as presented in Table 10 revealed that 43 (42.6%) respondents considered their place of SIWES as a friendly meeting Place between IT Students and Management. 34 (33.7%) considered it as a place where I am satisfied working with. 32 (31.7%) with a place where management keeps us informed about things they wanted us to know and a good place for Training and Personal Development while 2 (2.0%) considered their place of SIWES as a place where management is not interested in IT students' feelings.

Challenges faced by LIS students during SIWES programme

The study in Table 11 identified that 2 main challenges faced by LIS students during their Students' Industrial Work Experience Scheme were financial constraint and Inadequate Computers and other needed tools as IT Students were too many. Other challenges such as too much pressure and Short time to grasp all the practical that was taught, IT students were treated badly and unwillingness of Management to release some vital and needed information to IT Students were all indicated as challenges they faced as well. These findings were in agreement with Olugbenga (2009[31]) who posited that students on industrial attachment also face financial challenges and Mabhanda(2016)[32] who stated that lecturers, students and supervisors are agreeable (100%) that finance for students affect attachment programme. The author concluded that the bottom line is lack of finance affect industrial training at varying degrees and the attachees are the most affected.

Proffered solutions to the challenges LIS students faced during SIWES

The findings of the study in Table 12 showed 5 solutions to the challenges faced by LIS student on their industrial attachment programme. LIS IT Students should be paid Allowance by Federal Government (3.64>3.42) was ranked highest among the solution mean scores, and Practical works should be spread out and taught at the pace of IT Students (3.51>3.42), While the remaining 3 items as shown in Table 12 were viewed as solutions to identified challenges faced during their SIWES programme. The findings were in conformity with the assertion of Rita (2017[32]) who stated that payment of students' allowances before the commencement of SIWES, reduction of the duration of SIWES to four months, limiting the posting of students for SIWES to nearby places, provision of basic training tools, and proper humane supervision by the supervisors are the strategies that can be adopted in evaluating the effectiveness of SIWES programme in Nigeria.

Testing of hypotheses

Based on the research findings, a one-way ANOVA analysis was used to assess the statistical significance difference in the personal evaluation of the importance of SIWES programme between male and female LIS students. Table 12 shows that there is no significant difference in the personal evaluation of the importance of SIWES programme between male and female students ($t = -0.25$, $df = 99$, $p > 0.05$). Hence hypothesis 1 was not rejected. This means that both gender (male and female) of the LIS students viewed the evaluation of the importance of SIWES programme the same.

Table 13 indicates that there is no significant difference in the satisfaction of SIWES programme between male and female students ($t = 0.24$, $df = 99$, $p > 0.05$). Hence hypothesis 2 was not rejected. This implies that gender (male and female) of the students has no influence on satisfaction of SIWES programme.

5. Conclusion

The Students' Industrial Work Experience Scheme (SIWES) is appraised as an important scheme established to expose LIS students to situations they would meet after graduation and help them acquire the necessary skills that would help them perform their duties effectively and efficiently in real work situation. Based on the findings of this research, LIS students personally evaluated SIWES Programme as extremely important, they acquired the confidence for future job to a very large extent, they were adequately supervised, performed some routine work and were satisfied with the programme.

Despite the numerous benefits of SIWES Programme to LIS students, some challenges were established; financial constraints, inadequate computers and other necessary tools for IT students, too much pressure and short time to learn all that is taught and others and others. Despite the challenges faced, we can confidently conclude that SIWES remains extremely important and relevant in training LIS students in University of Jos.

Finally, solutions were proffered that could improve the SIWES programme so as to bridge the gaps and challenges between University of Jos and ITF. The study, therefore, recommends the following:

6. Recommendations

1. The problem of non-payment of SIWES allowance to LIS Students whose IT period is less than six (6) months should be reviewed so as to help motivate them towards better participation in SIWES.
2. They should be regular monitoring and supervision visits to LIS students in their places of attachment. This to enable the scheme attains its potential in enhancing the pool of technical skills available to the economy.

3. Prior to the Student Industrial Work Experience Scheme (SIWES) placement of LIS Students, the Faculty IT Coordinators should visit such organizations to assess their equipment that would help familiarize trainees(students).

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