Assessment of Students' Experience on Industrial Training Program in Polytechnic Sector: A Case Study of Some Selected Polytechnics in Osun State, Nigeria

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Industrial training is a program that aims to provide supervised training within a particular time frame which can be carried out either in the private sector or in government organizations. The purpose of this study is to evaluate the students experience in industrial training programs in some selected polytechnics in Osun state, Nigeria. Two sets of questionnaires were used for this study which are the student's perspective and the lecturers. A total population size of 450 questionnaires was issued and 210 were returned. The data were analyzed using a statistical package for prediction. The probability sampling method was used as the method of the research It was observed from the view of the lecturers that industrial training improved the student's skills in formal and informal communication, help to find a research area for their projects, and ability to socialize, and sustain a relationship. In the view of the students, we observed that industrial training improved the students' confidence in tackling problems and provides the needs for continuous learning. Also, we observed that safety was the major challenge students faced during their internship. Finally, In terms of Lecturer Department placements students from estate management has the highest percentage of 30% of participant with 3 respondents, in terms of Course placements estate management has the highest course of the student of 25% with 50 respondents, in terms of Industrial Training (IT)

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placements, Ministry has the highest place of IT percentage which is 38.0% of participant (76 respondents), and in terms of Gender placements men has the highest place of Gender percentage which is 65% of participant (130 respondents). Future work should focus on other sectors including institution, colleges, and more.

1. INTRODUCTION

Training can be defined as an organized procedure by which people acquire knowledge or skill for a definite purpose which may be knowledge, skills, and abilities needed by a particular job or organization. Obasi [1] defined industrial training as a program that provides pre- professional work experience with specific assignments and responsibilities. Srinivasan and Ravi [2] also define industrial training as a program that aims to provide the best practical experience within a particular time frame. It is a program that aims to provide supervised training within a particular time frame which can be carried out either in the private sector or in government organization [3]. An Industrial training program is a training that is participated by students who have theoretical knowledge and exposes them to practical knowledge [4]. It is a training that was established in other to bridge the gap between theoretical experience and practical inclined courses in higher institutions [5]. Industrial training has been applied by many countries of the world for their academic development [6]. It is known by various names such as internship program, cooperative educational experience, work study etc. Industrial training should be relevant to student's personal career, interest, and academic course of study. In other words, it helps to expose students to the real working environment [7].

In Nigeria, the regulatory body responsible for industrial training program is "the industrial training fund (I.T.F)". It was established by the federal government of Nigeria in 1971. It operated within its context of the enabling law decree 47 of 1971 as amended in 2011 industrial training fund ACT. This also led to the establishment of the "Students Industrial Work Experience Scheme "(SIWES) in the year 1973 [8]. Aroh [9] opined that it was established to compliment the efforts of producing graduates that are sound in theoretical aspect, technology proven and practical oriented. The objective for which the fund was established has been pursed vigorously and efficaciously. Industrial training program has significant impact and importance in the development of students career which includes preparing the students for real working situation that they may encounter after graduation and handling of equipment's which are not available in their institutions, enables the students to put their theoretical knowledge into practical practice, enable them to have enough confidence on returning back to their institution and put a balance between their practical experienced gained and their theoretical knowledge.

Despite the numerous approach and training program students attend, there is still low level of improvement in their skill and performance. Evidence shows a wider gap between the academia and the industry. Many issues have been raised by some students about the challenges encountered before a placement is secured. There are major problems militating against the improvement of students during their internship program which includes the following: poor supervision, uncomfortable working conditions, safety, lack of accommodation, lack of communication, lack of training material, transportation, distance, limited opportunity, poor partnership between the academia and industry, the attitude of host organizations and so on [10]. In most cases when the training is well done by the students, it makes academic activities are also beneficiary of the program because it will help to reduce the stress in explaining some terms or ambiguous terms to students since the students have been put into practice and come across the terms during their training program. Another set of beneficiaries are the construction industry, the employers of labor, the industrial training fund, and the country at large because since the students already have pre-knowledge of what is to be done, when is to be done and how to execute them, thus helps to eliminate quacks and promote professionalism in the industry. Thus, Industrial Training (IT) will enhance their academic performance when they know that it will improve their skill and ability.

The recent studies on IT includes industrial training case study of polytechnics in Ghana [11], industrial challenges drawn from Gweru polytechnic college in Zimbabwe [12], technical and vocational education training in Bangladesh–Systems [13], female participation in vocational education and training institutions Kenyan experience [14], effect of internship students' perception [15], technical and vocational education training students' in Malaysia [16], education students industrial work experience scheme for private institution sector [17], technical and vocational education training in Uganda [18], industrial training institutes in India [19], role of technical and vocational education training in Zimbabwe [20], vocational education training restaurant in Cambodia [21], industrial training institutes of government in Mumbai [22], vocational education training graduates in Nigeria [23], vocational education and training in India: [24] and development trends in practical training of college students [25]. In view of the above, we aim to access the impact of IT, challenges during IT, and ways to overcome the challenges. Hence, this study will help to evaluate, assess the students experience on industrial training program.

2. METHODOLOGY

This study targeted the population groups of national diploma 2 (ND2), higher national diploma 1 (HND1), and industrial training (IT) supervisors as respondents. The selection was stratified random sampling techniques. This method is a probability sampling method where every item in the population has an equal chance of being included in the sample [26]. In this way, every ND2 and HND1 has the probability to be included in the study. The procedure of a stratified random requires the population is first established, and population of the respondents will be stratified (divided) which are the ND2 and HND1 in particular. After getting the population size, the percentage will be selected based on the population (students of HND1 and ND2) and the sample size (no of respondents) [26]. The formula goes thus,

$$n = \frac{N}{1 + \alpha^{2N}}$$

Where: n = Sample size, N= No of population, α= 0.10.

2.1 Data Collection Tool

2.1.1 Data collection and analysis in built environment (School of Environmental Studies)

The internship program helps the environmental students to ascertain vast knowledge in their different course of study and help them to know their roles, duties, and obligations of their profession after graduation. The various disciplines in the built environment have different obligations relating to the industrial training program which includes architectural technology, building technology, estate management, surveying, geo-informatics, and quantity surveyors etc. On completion of the National Diploma (ND) and Higher National Diploma (HND) in their relevant course of study, the program is designed to produce technicians and technologists with emphasis on their field of study. Their functionincludes.

For this study, a total number of four hundred and fifty (450) questionnaires was administered for the assessment of student experience in industrial training program in Nigeria, meanwhile, two hundred and ten (210) questionnaires were filled and returned, representing a response rate of 47%.

From Table 2 above, the category of the respondents presented that student have the highest percentage of 95.2% with 200 respondents, while staff accounted for only 10 respondents which 4.8%participation.

In Table 3 above, the years of staff experience are presented. The Majority of the staff have spent between 6-9 years and have the highest year of experience of the staff with the percentage of 70.0% with 7 respondents, respondents with 2-5 years account for 30.0% of the participants, less than 1 year and above 10 years have no representative in the study. While Fig. 1 shows the category of the respondents.

From Table 4 above, the demographic characteristic of the students is presented. In terms of Lecturer Department placements students from estate management have the highest percentage of 30% of participant with 3 respondents, architecture, quantity surveying, and surveying and geo-informatics had 2 respondents with 20.0% of the participants. The building department has only 1 respondent accounting for 10% of the participants, while

urban and regional planning, and others has no representation in the study. In terms of Gender placements both genders were represented, 65% were male and females accounted for 35% of the respondents, in terms of Students Course of study placements estate management has the highest course of the student of 25% with 50 respondents, building account for 20% (40 respondents) urban and regional planning, and Surveying and Geo- informatics has 15% each (30 respondent), only architecture and quantity Surveying has 25 respondents accounting for 12.5% of the participants. In terms of Industrial Training (IT) placements, Ministry has the highest place of IT percentage which is 38.0% of

the participants (76 respondents), the consultant has 32.5% (65 respondents), the contractor has 27% (54 respondents) while others accounted for 2.5% of the respondents. Fig. 2 presents the demographic characteristic of the students.

In Table 5 above, 42.5% of the respondents were between ages 21-25 years whichform the highest age of the student, followed by students less than 20 years old accounting for 35.0% of the respondents. Age between 26-30 years has 35 respondents (17.5%) of the participant while students above 30 years have the least representation of 5%, while Fig. 3 below present graphically characteristic of the students.

Table 1. Internship program in built environment (www.unesco.org)

Department	Obligations relating to the industrial training program
Building	To be able to supervise and manage efficiently the construction of buildings of all sizes from setting out to completion stage
	Understand and interpret all kinds of project drawings e.g., architectural drawings, services drawings, structural design to be able to implement them on site
	Design and prepare working drawings, structural drawings for medium size buildings
	Prepare realistic estimates in terms of cost, materials and labor for all building works including maintenance work
	Carry out survey of various kinds of existing buildings and prepare a schedule of dilapidation and repairs
Surveying & Geo-Informatics (https:// job description-career.com/ surveyors)	Prepare and maintain sketches, maps, reports, and legal description of surveyors in order to describe, certify and assume liability for work done
	Verify the accuracy of survey data including measurements and calculations conducted at survey
	Direct on conduct survey in other to establish legal boundaries for properties based on legal deeds and titles
	Calculate heights, depths, relative position, property lines and other characteristics of terrain
	Adjusting surveying instrument in other to maintain accuracy
Quantity Surveying	Measure and prepare bills of quantity and contract documents for construction works
	Prepare final accounts for construction projects
	Measured as constructed works
	Interpret contract document of all types of construction
	Prepare estimate for construction projects Carry out feasibility studies and options appraisal
Architecture	Preparing of design concept
	Preparation of tender documents
	Inspection of works
	Preparation of production information
Estate Management.	Monitoring tenancy agreement
	Assessing rents
	Budget and system management
	Contract negotiation

Table 2. Category of the respondents

S/N	Category	Frequency	Percentage of Participant
1	Staff	10	4.8
2	Student	200	95.2
	Total	**210**	**100.0**

Source: Field Survey (2019)

Table 3. Year of experience of the staff

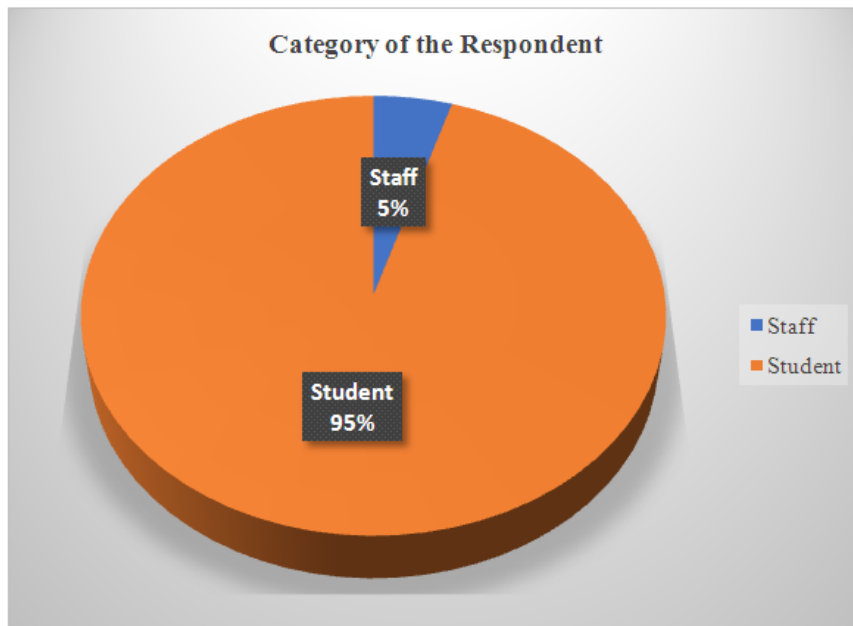| S/N	Year range	Frequency	Percentage	Upper Class Boundaries
1	Less than 1 year	0	0	1.5
2	2 - 5 years	3	30.0	5.5
3	6 - 9 years	7	70.0	9.5
4	Above 10 years	0	0	10.5 Above
	Total	**10**	**100.0**	

Source: Field Survey (2019)

Fig. 1. Category of the respondents demographic characteristic of the staff

Fig. 2. Year of experience of staff

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Table 4. Demographic characteristic of the students

Lecturer Department	Frequency	Percentage (%)
Architecture	2	20.0
Building	1	10.0
Estate Management	3	30.0
Quantity Surveying	2	20.0
Urban and regional planning	0	0.0
Surveying and Geo – informatics	2	20.0
Others	0	0.0
Total	10	100.0
Gender		
Male	130	65.0
Female	70	35.0
Total	**200**	**100.0**
Students Course of study		
Architecture	25	12.5
Building	40	20.0
Estate Management	50	25.0
Quantity Surveying	25	12.5
Urban and regional planning	30	15.0
Surveying and Geo – informatics	30	15.0
Others	0	0.0
Total	**200**	**100.0**
Place of Industrial Training		
Consultant	65	32.5
Contractor	54	27.0
Ministry	76	38.0
Others	5	2.5
Total	**200**	**100.0**

Source: Field Survey (2019).

Table 5. Age of the respondent

S/N	Age	Cumulative Frequency	Frequency	Percentage	Upper Class Boundaries
1	Less than 20 years	70	70	35.0	20.5
2	21 - 25 years	155	85	42.5	25.5
3	26 - 30 years	190	35	17.5	30.5
4	Above 30 years	200	10	5.0	30.5 Above
	Total		**200**	**100.0**	

Source: Field Survey (2019).

3. FINDINGS

3.1 Impact of IT on Students (Staff Perspective)

In Table 6 below, the perception of staff on the impacts of IT on the student is presented. IT assisted students' in finding a research area for their final year project and IT exposed students' to having an idea of life after school have the highest ranking with relative importance index (RII = 0.92). IT exposed students to the changing industry culture and developments in technology and industrial training exposed students to the need for continuous learning were ranked third with (RII = 0.88). IT improved students' knowledge and intellectual capability and IT improved students' understanding of course of study ranked fifth (RII = 0.84).

Table 6 also indicates the view of staff on the skills gain during IT by students which indicate that IT improved students' skills in formal and informal written communication has the highest ranking with RII 0.94. IT developed students' ability to plan and complete any assigned task ranked second with RII of 0.92. IT developed

students' ability to identify problems and proffer solutions, IT developed students' ability to work effectively with different groups, and IT improved students' skills in formal and informal written communication ranked third with RII of 0.88. IT improved students' creativity ability ranked sixth with RII of 0.86. IT improved students' self-confidence tackling problems ranked seventh with RII of 0.82.
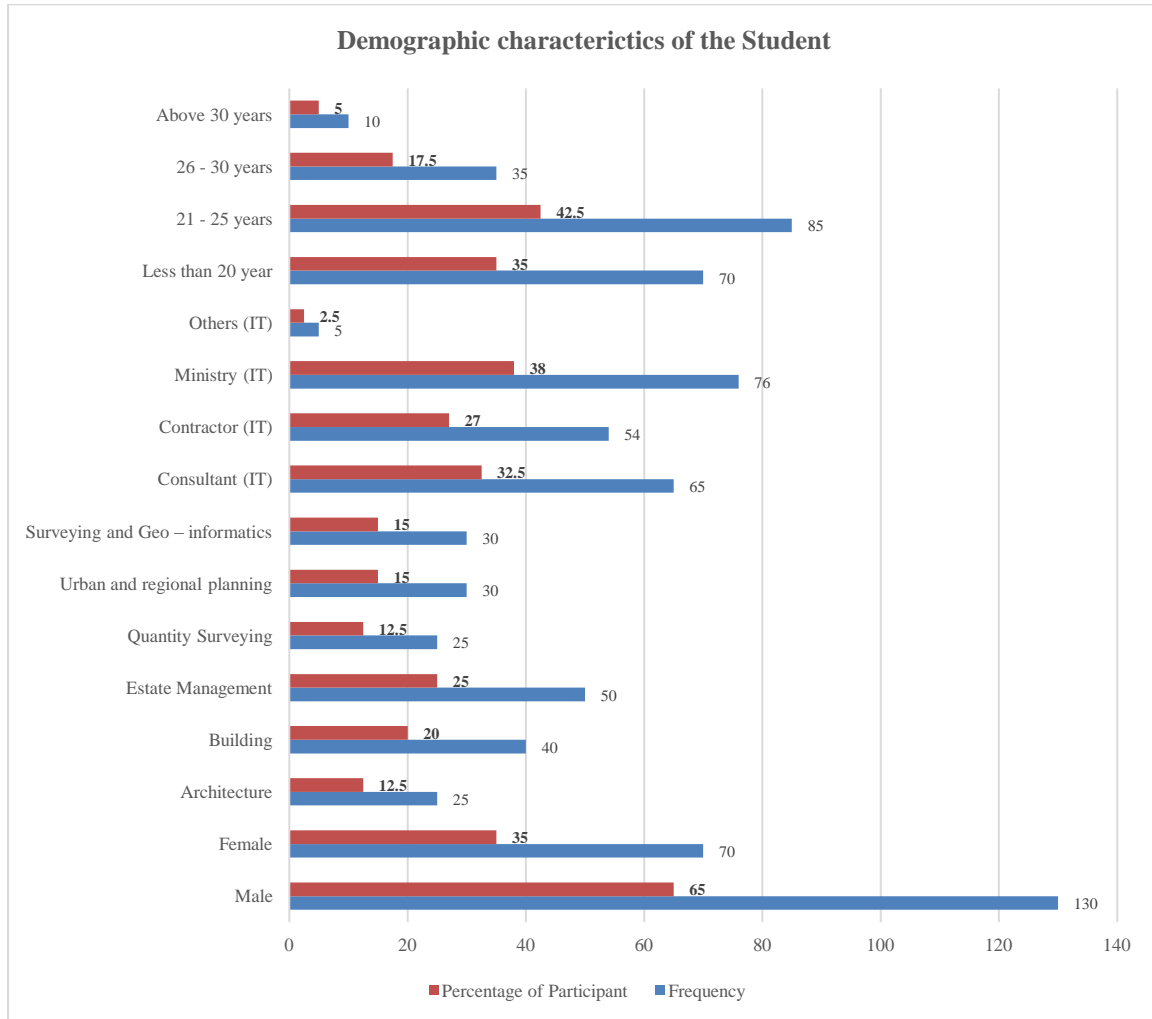

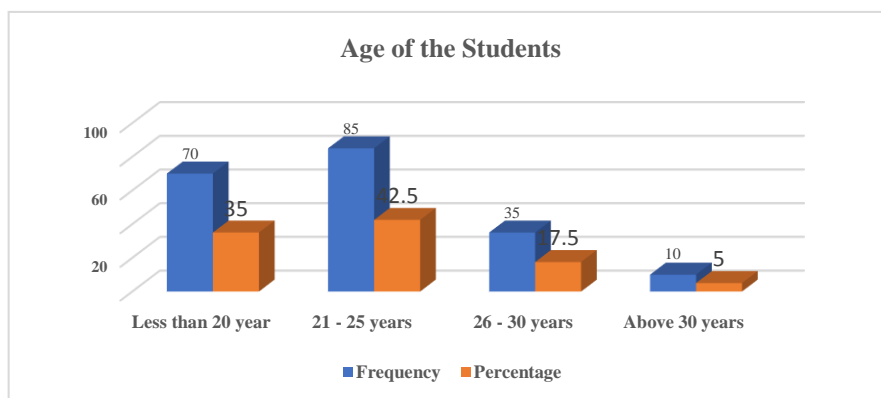**Fig. 3. Demographic characteristic of the students**

Fig. 4. Demographic characteristic of the students

Table 6. Impacts of IT on the students (staff perspective)

Variables			5	4	3	2	1	RII	Ranking
Knowledge	1	Industrial training improved students' knowledge and intellectual capability	2	8	0	0	0	0.84	5th
	2	Industrial training improved students' understanding of course of study	2	8	0	0	0	0.92	5th
	3	Industrial training assisted students' in finding a research area for their final year project	6	4	0	0	0	0.92	1st
	4	Industrial training exposed students' to having an idea of life after school	6	4	1	0	0	0.92	1st
	5	Industrial training exposed students to the changing industry culture and developments in technology	4	6	0	0	0	0.84	3rd
	6	Industrial training exposed students to the need for continuous learning	5	4	1	0	0	0.88	3rd
Skills	1	Industrial training improved students' creativity ability	4	5	1	0	0	0.86	6th
	2	Industrial training developed students' ability to identify problems and proffer solution	4	6	0	0	0	0.88	3rd
	3	Industrial training developed students' ability to plan and complete any assigned task	6	4	0	0	0	0.92	2nd
	4	Industrial training developed students' ability to work effectively with different groups	4	6	0	0	0	0.88	3rd
	5	Industrial training improved students' skills in formal and informal written communication	4	6	0	0	0	0.88	3rd
	6	Training improved students' skills in formal and informal written communication	8	1	1	0	0	0.94	1st
	7	Industrial training improved students' self confidence in tackling problems	2	7	1	0	0	0.82	7th
Attitude	1	Industrial training developed students' ability to socialize and sustain the relationship	5	5	0	0	0	0.90	1st
	2	Industrial training improved students' self-control and motivation	3	7	0	0	0	0.86	2nd
	3	Industrial training improved students' success consciousness	5	2	3	0	0	0.84	5th
	4	Industrial training increased students' confident on employment prospects	3	5	2	0	0	0.76	7th
	5	Industrial training improved students' perseverance in challenging situations	1	6	3	0	0	0.82	6th
	6	Industrial training improved students' time keeping ability	3	7	0	0	0	0.86	2nd
	7	Industrial training improved students' ability to work independently	3	7	0	0	0	0.86	2nd

Source: Field Survey (2019)

Furthermore, Table 6 indicate the view of staff on attitude gained from IT by students which indicates that IT developed students' ability to socialize and sustain the relationship has the highest ranking (RII = 0.90). IT improved students' self-control and motivation, IT improved students' time keeping ability; IT improved ability to work independently ranked second (RII = 0.86). IT improved students' success consciousness ranked fifth (RII = 0.84). IT improved students' perseverance in challenging situations ranked sixth (RII = 0.82). IT increased students' confident on employment prospects ranked seventh (RII = 0.76).

From indication, it was observed that knowledge have a great impact on the students. In the variable of knowledge, IT assisted the students in finding research area for their final year project and exposed the students to have an idea of life after school were ranked 1st based on the perception of the respondents since it helps the students after completing the training derives a topic for their final year project and also gives an insight of what students will face after graduation. In the variables of skills, IT improved students' skills in formal and informal written communication were ranked 1st based on the perception of the respondents because it has helped to improve the student's ability of writing skills, enhance their performance in communication. The respondent agreed that after having their IT, they are now confidence to express their work in terms of verbal and written skills. In the variable of attitude, IT developed students ability to socialize and sustain relationship were ranked 1st based on the view of the respondent because it has improved the students to develop and relate with the host workers, develop an interest in the organization, improve the students on how to socialize with employers and staff who are already in the working industry to know how to tackle challenges (Fig. 4).

3.2 Impacts of IT on the Students (Students' Perspective)

In Table 7 below, the perception of students is presented. Knowledge gained from IT indicates that IT exposed them to the need for continuous learning and has the highest ranking with RII 0.88. IT improved its knowledge and intellectual capability ranked second with RII of 0.88. IT improved the understanding of their course of study ranked third with RII of 0.88. IT exposed them to the changing industry culture and developments in technology ranked fourth with RII of 0.87. IT exposed me to having an idea of life after school ranked fifth with RII of 0.86. IT assisted me in finding a research area for my project ranked sixth with RII of 0.83.

Table 7 indicates students skill gained from IT. According to the analysis, IT improved my self-confidence tackling problems has the highest ranking with RII 0.87. IT developed my ability to identify problems and proffer solution ranked second with RII of 0.86. IT developed my ability to plan and complete any assigned task ranked third with RII of 0.86. IT improved my creativity ability ranked fourth with RII of 0.84. IT improved my skills in formal and informal written communication ranked fifth with RII of 0.82. IT developed my ability to work effectively with different groups ranked sixth with RII of 0.81. IT improved my skills in formal and informal written communication ranked seventh with RII of 0.80.

Lastly on Table 7 below, the view of student on the attitude gained from IT which indicate that IT improved my time keeping ability has the highest ranking with RII 0.87. IT improved my self-control and motivation ranked second with RII of 0.83. IT developed my ability to socialize and sustain the relationship ranked third with RII of 0.83. IT improved my success consciousness ranked fourth with RII of 0.82. IT improved my ability to work independently ranked fifth with RII of 0.82. IT increased my confident on employment prospects ranked sixth with RII of 0.81. IT improved my perseverance in challenging situations ranked seventh with RII of 0.79.

From indications on IT variables on knowledge, IT exposed me to the need for continuous learning was ranked based on the respondent perception based on the view that IT have widen their horizon and way of reasoning, it has helped the to develop more interest in their course of study and help understand clearly what academia is trying to impact them. From the variable of skills, it was observed that IT improved my self confidence in tackling problem based on the view of the respondent, it was observed that after participating in IT program, it has exposed the students to the likely challenges they will meet after graduation, what to expect when working, it has given them an overview of the industry will look like and how to improve the aspects the tends to fit in. From the variable of attitude, it was indicated that IT improved my time keeping ability was ranked 1st
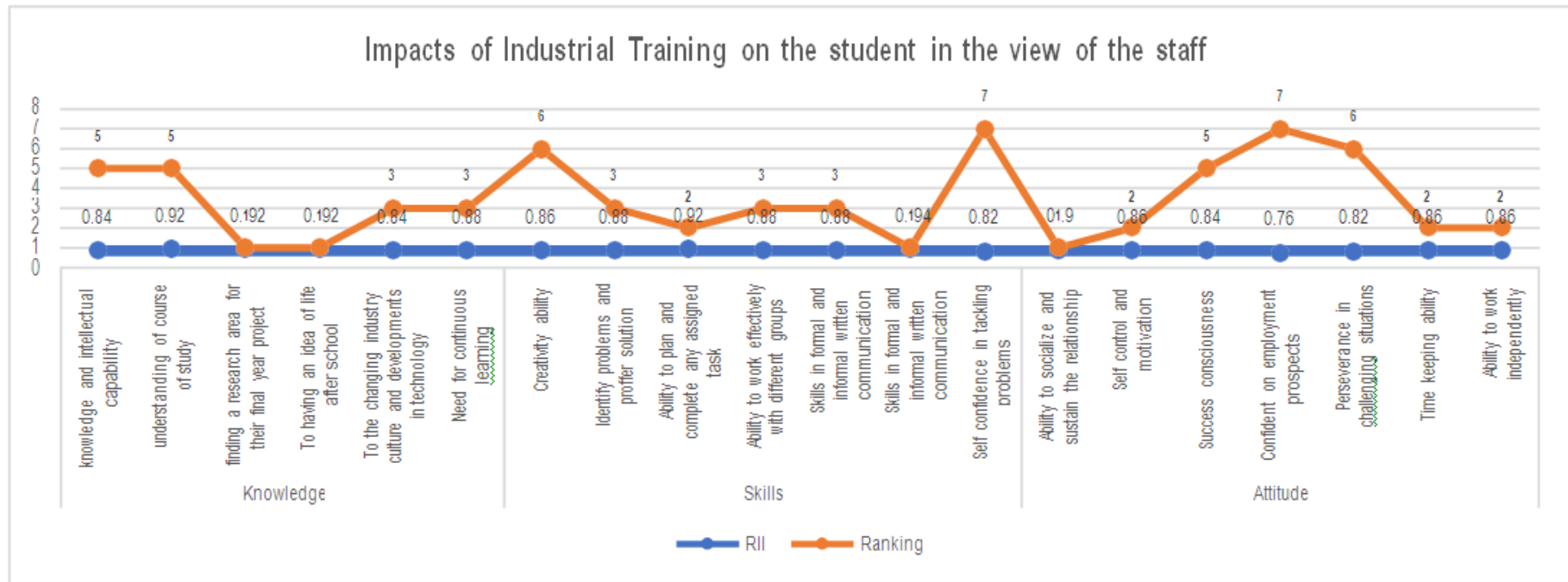
Fig. 5. Impacts of IT (staff perspective)

Table 7. Impacts of IT on students' (students' perspective)

| Variables			5	4	3	2	1	RII	Ranking
Knowledge	1	Industrial training improved my knowledge and intellectual capability	94	100	0	6	0	0.88	2nd
	2	Industrial training improved the understanding of my course of study	83	113	0	4	0	0.88	2nd
	3	Industrial training assisted me in finding a research area for my project	55	120	25	0	0	0.83	6th
	4	Industrial training exposed me to having an idea of life after school	77	111	8	4	0	0.86	5th
	5	Industrial training exposed me to the changing industry culture and developments in technology	86	100	8	6	0	0.87	4th
	6	Industrial training exposed me to the need for continuous learning	97	95	8	0	0	0.89	1st
Skills	1	Industrial training improved my creativity ability	72	101	23	4	0	0.84	4th
	2	Industrial training developed my ability to identify problems and proffer solution	91	79	30	0	0	0.86	2nd
	3	Industrial training developed my ability to plan and complete any assigned task	80	98	22	0	0	0.86	3rd
	4	Industrial training developed my ability to work effectively with different groups	43	132	21	4	0	0.81	6th
	5	Industrial training improved my skills in formal and informal written communication	56	110	30	4	0	0.82	5th
	6	Training improved my skills in formal and informal written communication	50	111	31	8	0	0.80	7th
	7	Industrial, Industrial training improved my self-confidence tackling problems	84	104	31	8	0	0.87	1st
Attitude	1	Industrial training developed my ability to socialize and sustain the relationship	58	115	21	6	0	0.83	3rd
	2	Industrial training improved my self-control and motivation	56	117	25	2	0	0.83	2nd
	3	Industrial training improved my success consciousness	60	104	36	0	0	0.82	4th
	4	Industrial training improved my success consciousness	60	104	36	0	0	0.82	4th
	5	Industrial training increased my confident on employment prospects	52	114	30	4	0	0.81	6th
	6	Industrial training improved my perseverance in challenging situations	38	126	26	10	0	0.79	7th
	7	Industrial training improved my ability to work independently	37	144	19	0	0	0.82	4th

Source: Field Survey (2019).
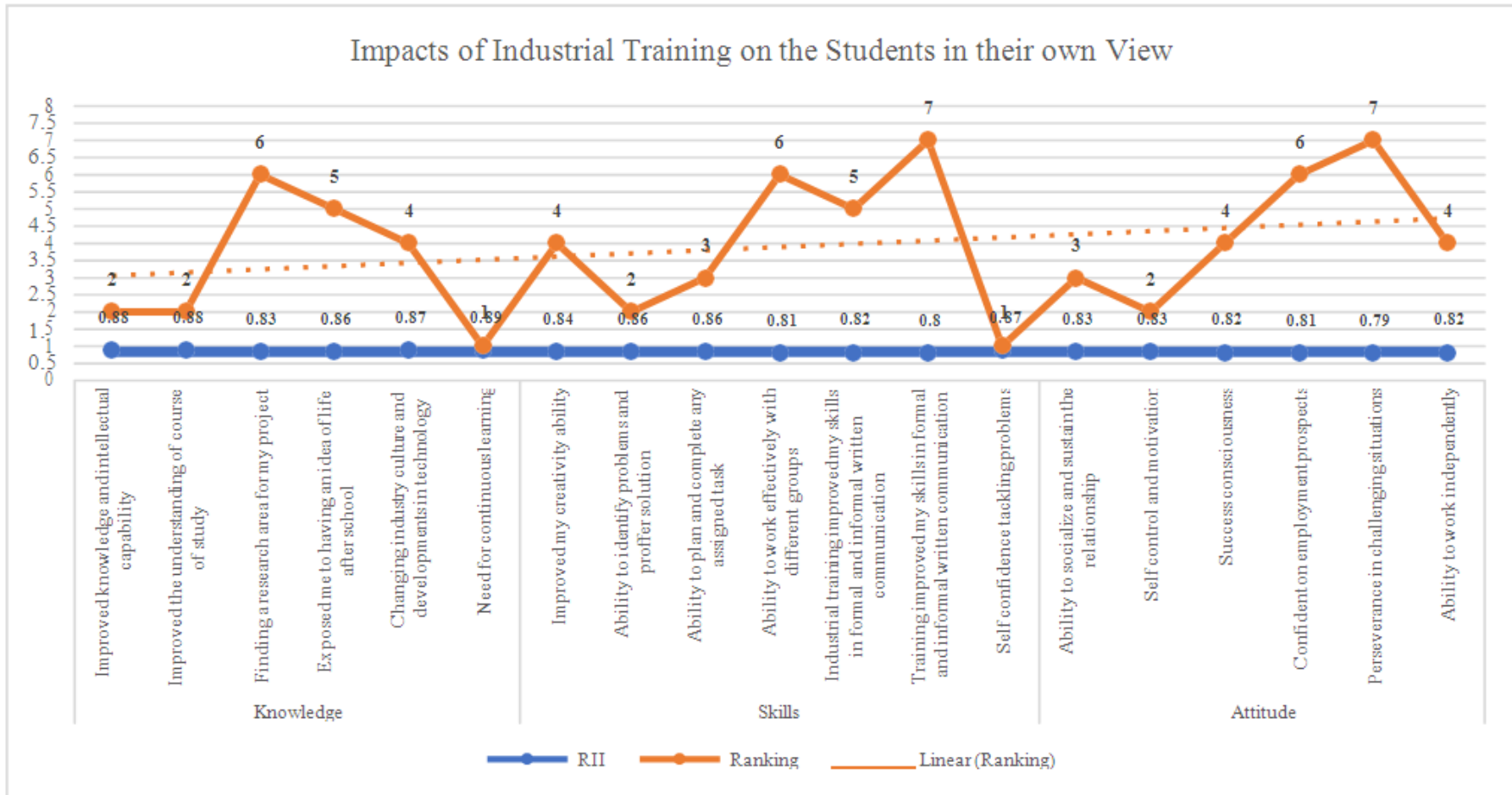
Fig. 6. Impacts of IT on students (Student's perspectives)

based on the perception of the respondents because IT have made them realized the benefits of time management to studying will enhance them academically and make them fully understand what the program is all about and its importance.

3.3 Challenges during IT

The perception of the respondent regarding the challenges during IT is presented in Table 8. The top five ranked variables were safety (R = 0.72), commitment of supervisor (RII = 0.70), distance from residence to place of training (RII = 0.69), polytechnic policies (RII = 0.68), and transportation (RII = 0.68). while the least ranked were lack of training materials (RII = 0.56), trainees are made to do menial jobs (RII = 0.55), poor partnership between academia and industry (RII = 0.55). Based on the perception of the respondents, it was observed that safety was the major challenge encountered by the students during their internship and financial related issues as presented on Table 8.

Safety such as hazard in the working environment as a result of the host organization, and many more. On site, the use of helmet should be always adhered to protect the head from injury, safety boots should be worn to avoid penetration of nails, safety gloves should be worn when dealing with electrical appliances, gobbles should be worn in the workshop to protect the eyes from injury etc. Safety of the students should be ensured always including the machine and tools the work with to avoid pilfering. Based on the respondent's view, commitment of Supervisor is the 2nd factor the experience, the students face appropriate supervision by their supervisors and low monitoring thereby leaving the students in doubts of the tasks assigned to them. Supervision is very essential for any success of any task. Adequate supervision and commitment of the supervisors will enable the student to know what exactly is required of them; help them realize when mistakes are made and also achieve the aim of attending the industrial training from the industry, institution, and ITF. The learning institution should also get involved of trainees during their internship. Afonja, K. [10] cited that when students are accepted by employers for industrial training, they are not often well supervised. Another factor is Distance from residence to place of work which is ranked 3rd. This is commonly experienced by almost every student, their place of resident maybe very far from their placement location, it's a major

factor that discourage students from participating in the training program because it will transportation and feeding for them to cope thereby making the students to attend a nearest placement which maybe entirely different from their course of study. Polytechnic policy being the 4th factor also tends to discourage the students based on the respondent's perspective. Polytechnic policy such as duration of the program, assessment of their course work and defending of what they have learnt after their training makes the students feels that the policy is too ambiguous and therefore the students always feel discouraged whenever they have completed their training. Transportation being the 5th challenge the students encountered during their internship makes the students to abandon the program and face whatever that will fetch them money. If little stipends are being given to the students for transportation, it will help to motivate the students from attending the program despite their location. Lack of transportation stipends can result to student's absenteeism, drop-out and low motivation. In the variable of Trainees are made to made do menial job is ranked 25th based on the respondent's view, the student is made to do some work for the host organization based on the fact that the students didn't pay for acquiring knowledge and are made to do some productive work for them especially the females will be sent to market to buy food stuffs, fetch water and other errand. The last variable which is Poor partnership between the academia and the industry according to the perception of the respondent affects the students who are at the receiving end. When the academia fails to give the basic ideas needed by the students before proceeding to internship, they found it difficult to understand the terms and what the course of study.

3.4 Ways to Overcome Challenges during IT

The perception of the respondent regarding the ways to overcome challenges during IT is presented in Table 9 below. The rank analysis was based on RII which shows that host should issue a certificates/ recommendation letters to deserving students after completing training (RII = 0.88), students on training should be viewed as prospective assets and not threats (RII = 0.876), students should be well paid regularly and early (RII = 0.87) were the top three ranked ways to overcome challenges during IT. Meanwhile, the least ranked factors according to

Table 8. Challenges students' face during IT

S/N	Variables	5	4	3	2	1	RII	Ranking
1	Distance from residence to place of training	33	40	121	16	0	0.69	3 rd
2	Duration of industrial training	9	77	110	14	0	0.68	7 th
3	Attitude of host organization	7	89	94	20	0	0.68	7 th
4	Remuneration during industrial training	7	78	89	32	4	0.65	10 th
5	Commitment of supervisor	23	71	105	6	5	0.70	2 nd
6	Polytechnic policies	18	71	100	21	0	0.68	6 th
7	Transportation	20	66	103	21	0	0.68	7 th
8	Safety	27	84	88	11	0	0.72	1 st
9	Accommodation	26	48	97	35	4	0.65	9th
10	Lack of social activities	20	56	101	30	3	0.66	8th
11	Inadequate training opportunity	20	34	137	0	19	0.63	12th
12	Ambiguous program grading system	20	37	125	24	4	0.64	11th
13	Lack of communication	14	25	128	43	0	0.61	17 th
14	Uncomfortable working environment	4	42	137	24	3	0.62	14th
15	Limited opportunity and lack of responsibility	4	35	145	23	3	0.61	17th
16	Documentation with the Industrial TrainingFund (8)	6	51	123	27	3	0.63	13th
17	Time spent in getting a place for industrialtraining	9	39	131	24	7	0.62	15th
18	Poor supervision by supervisors	8	26	120	46	10	0.58	23rd
19	Lack of training materials	0	44	109	44	13	0.58	24th
20	Gender inequality	4	43	126	28	9	0.61	19th
21	Poor partnership between academia andindustry	0	7	163	27	13	0.56	26th
22	Employees in host organizations feelendangered due to the presence of interns	4	59	95	42	10	0.61	19th
23	Supervisors from school request that interns to bring their logbooks for assessment ratherthan visiting the intern's workplace	13	30	109	50	8	0.60	21 st
24	Sexual harassment and intimidation ofstudents	3	44	114	33	16	0.59	22nd
25	Trainees are made to do menial jobs	3	12	144	40	11	0.56	25th
26	High industrial expectation	7	46	112	45	0	0.61	16th

Source: Field survey (2019)

Table 9. Ways to overcome challenges during IT

S/N	Variables	5	4	3	2	1	RII	Ranking
1	Students should be well paid regularly and early	104	88	14	0	4	0.87	3rd
2	Students on training should be viewed as prospective assets and not threats	110	73	23	4	0	0.87	2nd
3	Relevant stakeholders meeting should be organizedregularly	76	123	11	0	0	0.86	9th
4	Outstanding students should be identified, and their progress should be monitored	88	83	39	0	0	0.84	13th
5	Industrial Training Fund should assist students in getting placement	92	100	10	8	0	0.86	5th
6	Adequate monitoring and supervision of students by theindustry and academia	95	96	15	4	0	0.86	6th
7	Supervisors in the industry should be given adequateorientation regarding student's supervision	67	109	30	4	0	0.83	16th
8	Responses from student's host should be disclosed and discussed with students	51	130	29	0	0	0.82	17th
9	Supervisors in the industry should be monitored	68	122	20	0	0	0.84	14th
10	Students should be monitored early and regularly	86	117	4	3	0	0.87	4th
11	There should be synergy and cooperation between industryand academia	83	108	19	0	0	0.86	10th
12	Industrial training should be a major requirement forgraduation	101	75	34	0	0	0.86	7th
13	The duration of industrial training should be adjusted	92	81	28	9	0	0.84	15th
14	Time of industrial training should be changed	75	74	51	4	6	0.80	18th
15	The academia should recommend places where studentsshould go for industrial training	93	83	31	3	0	0.85	12th
16	Students should defend their reports when they completeindustrial training	92	94	24	0	0	0.86	6th
17	Host should issue a certificates/ recommendation letters to deserving students after completing training	106	86	18	0	0	0.8	1sh
18	Students with outstanding course(s) should be allowed toregister such course(s) during industrial training	104	71	28	7	0	0.85	11th

Source: Field Survey (2019).

the analysis where supervisors in the industry should be given adequate orientation regarding students' supervision (RII = 0.83), responses from students host should be disclosed and discussed with student's (RII = 0.82), and time of IT should be changed (RII = 0.80). Generally, there is no wide gap based on RII rank on all the factors.

4. RESULTS AND DISCUSSION

The study endeavors to provide a summary of the salient issues which represents the focus of this study. The study assesses the impact of IT on students from staff perspective and from students' perspectives. The focus was majorly on knowledge, skill, and attitude. Thereafter, to assess the challenges faced by IT students during the training exercise and finally looked at ways to overcome the identified challenges.

Findings presented an interesting discussion from both staff and students' perspective. On knowledge, IT staff (Table 6) agreed that IT exposes students to the idea of life after school and in finding a researchable area for their final year project. This presented a contrary opinion to the student's perspective (Table 7) but believed the impact of IT is exposure to the need for continuous learning, better understanding of course of study and enhanced intellectual capability. Interestingly, both staff and student have a common ground on culture and technological developments in the industry. This findings is consistent with [27] that the job market is increasingly emphasizing work experience in addition to academic qualifications when hiring new employees; as a result, industrial training has become a prerequisite in higher education institutions. In that, the academic knowledge becomes useful while on site and the site experience prepares the students for the real world. Many studies have a common ground that higher institutions are now providing students with the opportunity to translate the knowledge gained into practice through IT, also known as practical training or internship. The training period which lasts to about six months aims to develop the skills required by the industry and this seems to become an important role to provide quality and professional workforce. Under these skills, there is a problem with a lack of general skills. Staff believed IT improves students' skill in formal and informal written communication in both expression and verbal means of communication in their course of study while students believed IT improves self-confidence in tackling problems. However, the study sees a perfect match as the impact of IT is not limited to academic activities but also in social relationships, self-control, motivation, ability to plan and complete any assigned task within specific timeframe. Students should be paid regularly and early, from indication, it was observed that inadequate finance makes the students to fail to sustain themselves during their internship. Lack of remuneration also leads to low motivation of the students, student's absenteeism, and dropout. Regular and early stipend tends to motivate students. Students should be monitored early and regularly according to the respondent's view will help the to be fully monitored of their primary assignment in the industry. Adequate monitoring will give the students a full confidence and maximum guarantee of what they learn during their internship. In the 5th variable, Adequate monitoring and supervision by the industry and academia should be put in place to serve as a check for the improvement of the students. The industrial based supervisor, the ITF and academia should often visit the students to know on the improvement and participation of students. All these are consistent with many studies and have been cited as a path to improve students' participation to government policies.

5. CONCLUSION

The study was carried out to assess the student's experience on IT program for students in ND2 and HND1 to know their level of experience after the internship since the aim of the scheme is to bridge the gap between theoretical experience and practical inclined courses in higher institution and to expose the students to the real working situation. From the view of industrial based supervisor, it was indicated that industrial training assists the student in finding a research area for their final year project, expose them to real life challenges, develop students' ability, to identify problems and proffer solution to problems. From the view of the students, it was indicated that industrial training exposed the students to continuous learning, improved knowledge, intellectual capability and understanding their course of study. From this indication, it was observed that industrial training is very beneficial to students and should a major criteria and part of curriculum for students before graduation. It was also observed that safety was the challenges student faced during their internship, commitment of supervisors, distance,

transportation, and accommodation were also part of the challenges.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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