# Perceptions of industry in Botswana towards Botho University student industrial attachment (SIA) programme

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## Key words

Host organizations, symbiotic relationship, industrial attachment, attachees, perspectives

## Abstract

One of the Quality Policy statements for Botho University (BU) is to produce internationally and global employable graduates. This helps BU to make meaningful contributions to sustainable development in Botswana through the provision of high quality education. The study was motivated by the desire to establish perceptions of Botswana industry as regards BU Student Industrial Attachment (SIA) Programme introduced in 2011. The population for the study constituted 601 organizations which had at one time or another have taken BU students on attachment, and a convenience sample of 200 was taken in Gaborone, and 150 questionnaires were fully completed and returned, representing a 75 % response rate. The major finding of the study was that industry had a positive perception and a supportive attitude towards the attachment programme. However, further research regarding duration of the attachment, timing and intergrated curriculum development is needed in order to reinforce the attachment programme.

## 1. Introduction

## 1.0 Background to the study

Prior to 2011, Faculty of Computing programmes were all four years in duration but when internship was introduced in 2011, the programmes became four and half years in duration to accommodate the six months internship. In August 2011, as part of Botho University's (BU) focus on employability, the University developed a six month Botho Graduate Profile (BGP) Internship Programme (student industrial attachment). Since the programme was introduced in 2011, the first batch of students to go on the attachment programme in their second year of study were those studying for Bachelor of Science degree in Computing. Furthermore, it is noteworthy that the programme has since been adopted in other faculties, namely: Faculty of Business and Accounting and the first group of students in these Faculties should be going for attachment in 2015. *Table 1* below highlights the number of students who have so far undergone the attachment programme since its inception:

YEAR	BSc (Hons) Computing		
2011	489		
2012	652		
2013	803		
TOTAL	1 944		

## Table1: Student Attachment Enrolment Figures

Source: Botho University Career Services Department (2014), Gaborone

Botho University has grown as a University which used to have only one academic faculty, namely the Faculty of Computing into a University with five academic. As a result of this growth, there has been an almost exponential growth in the number of students enrolled in the institution. This increase is also reflected in the number of students enrolled in the above mentioned programme who were able to undergo industrial attachment. In addition, the increase in the number of students

who underwent the attachment programme is a clear demonstration that industry is also receptive of the BU, SIA programme, hence may be reflective of a positive perception by industry of the internship programme.

Botho University was established in 1997 as a computing training institute that has rapidly evolved to become a high quality and multidisciplinary university, having been awarded the university status in 2013 (<u>www.bothocollege.ac.bw</u>). It is the first citizen-owned local private university in Botswana. The University currently has five faculties namely, Faculty of Accounting and Finance, Faculty of Academic Studies, Faculty of Computing, Faculty of Business and the Faculty of Education and Continuing Studies that offer a wide range of undergraduate degrees in Accounting, Business Management, Health Information Management, Computing, Network Security and Computer Forensics, Mobile Computing, professional accounting qualifications such as AAT, ACCA, CIMA, and the Botswana Institute of Chartered Accountants (BICA) qualification, programmes in Higher Education and over 200 short-term programmes that are suitable for career development (<u>www.bothocollege.ac.bw</u>). Botho University has a number of international partnerships with well-known international institutions such as NIIT, the UK Open University, Teesside University, Ohio University, Manipal University and Wayne State University (www.bothocollege.ac.bw).

The University has developed a strong industry network that provides feedback and input for programme development, internships and graduate placement (Career Services department, 2014). The Projects Office that operates as a not-for-profit consultancy gets involved in technical projects for various clients including NGOs and public private partnerships so that students get real life work experiences while still in the institution. All Botho University degrees include a formal internship module for developing employability skills and an entrepreneurship module to nurture entrepreneurial talent (<u>www.bothocollege.ac.bw</u>). Botho University is driven by the values of excellence, leadership, and innovation, and aims to become a centre of excellence in higher education and a driver for positive social change. The University's focus on quality has resulted in it becoming BOS ISO 9001:2008 certified for all its processes. (<u>www.bothocollege.ac.bw</u>)

#### 1.1. Programmes Offered by the Faculty of Computing

The Faculty of Computing is one of the five faculties at BU offering certificate, diploma, undergraduate and postgraduate programmes. The Faculty is composed of five departments offering the following programmes (the Botho Graduate Profile (BGP) Attachment Programme (2011): Department of Computing (Teeside) : BSc Computing and MSc Computing degree; Department of Computing (Open University): BSc(Hons) in Computing; Department of Computing, Network Engineering: BSc (Hons) in Network Security and Computer Forensics; Department of Software Engineering: BSc (Hons) in Mobile; Department of Computing, NIIT

In addition, for the second year of study, all departments offer Diploma programmes, for instance, Diploma in Computing as well as Professional Diploma (Hons) in Computing.

### **1.2.** Administration of the Attachment programme

Faculty of Computing students are expected to undertake one mandatory attachment at the end of their third year of study (initially, attachment used to take place in the second year of study and this has since changed.) The goal of the programme is twofold (the Botho Graduate Profile (BGP) Attachment Programme, 2011): a) Give students an appreciation of the relevance of their curriculum to the job market and b) Develop essential qualities in students to make them employable

The BGP attachment is a full module and receives grade points just like any other module. Students are expected to submit a 5000 word attachment report which will be assessed. The grades obtained will be taken into consideration for the student to proceed to the Top up programme.

The objectives of the attachment, among others, are (the Botho Graduate Profile (BGP) Attachment Programme (2011) :

- i. The BGP attachment integrates the knowledge learned in the classrooms and laboratories with real world experiences.
- ii. The BGP attachment programme will provide students the opportunity to test their interest and aptitude in a particular career.
- iii. The BGP attachment will aid the student in adjusting from university to full-time employment
- iv. The BGP attachment will provide students the opportunity to develop attitudes conducive and effective to interpersonal relationships.

Furthermore, the attachee will be responsible for facilitating regular communication with his/her Attachment Tutor and getting the Weekly Log Book signed on a weekly basis. The Attachment Tutor will make at least two onsite visits and meet with the attachee's supervisor during the attachment. Attachees are not allowed to change employers once confirmation has been made to Career Services Department by the employer (Career Services department, 2014). The Career Services Department at BU maintains a database of prospective employers and the Career Services Manager is tasked with the responsibility of placing all third year undergraduate students at different companies in Botswana (Career Service Department, 2014). On the other hand, it is also imperative that students make an effort in placing their resumes with different companies so as to secure a place for attachment. During the attachment period, students follow the usual working hours of host organizations, usually from 8am to 4.30pm. Payment of subsistence allowances to students is at the discretion of the host organizations.

## **1.3.** Statement of the problem

The Faculty of Computing has been sending students on attachment since 2011. However, industry has never been afforded the opportunity to provide their sentiments, perceptions and observations of the BU SIA programme. Again, the Faculty of Computing has viewed their relationship with industry as confined to placing students on attachment only. However, literature confirms that beneficial relationships between industry and commerce should not only be confined to attachment but should cover areas of curricula development, scholarships and sponsorships so as to cultivate long term and mutually beneficial relationships (Dickinson, 2011).

## 1.4. Research Aim

To examine the perception of industry in Botswana on the BU SIA programme and the challenges industry faces when engaging BU students on industrial attachment.

## 1.5. Research Assumption

Industry has a positive perception of the BU SIA Programme

## **1.6.** Research Objectives

- i. To define and clarify the concept of student industrial attachment.
- ii. To investigate how SIA is understood and perceived by the Botswana industry.
- iii. To examine challenges industry faces during the BU internship period.
- iv. To investigate whether and how SIA benefits the Botswana industry.
- v. To investigate whether there is a relationship between how the BU SIA programme is being managed and the perceptions of industry towards the programme.

## 1.7. Significance of Research

This study will assist tertiary institutions particularly the BU Faculty of Computing in making necessary amendments in the management of their existing SIA Programmes. This will also aid industry and commerce to better interact with institutions of higher learning in general and the BU Faculty of Computing in particular. The study will also contribute to the enrichment of the body of knowledge on the role and benefits of the SIA to both industry and higher education institutions.

## 2. Literature Review

## 2.1. Overview of Perceptions

Psychology deals with the state of mind, that is, what we think, like, dislike, motivates or demotivates us. It helps us understand why we do or not do certain things. It profiles the uniqueness of individuals. Psychology views perception as a psychological construct. Perception is sometimes referred to as attitude(s), a hypothetical internal event that results from the stimulation of sensory preceptors and is affected by drive, level and habit...perception is not possible without sensation (Petter, 2009). In research, Botho students, University and partners in industry will have an opportunity to interact that is, using senses, for example, seeing what is done, hearing what is said, feeling the work relationships, hearing what is said about them and the attachment programme, hence develop perceptions or attitudes towards BU SIA Programme.

## 2.2. Definition of Attachment

Attachment refers to 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). The Industrial Training and Trade Testing Department (ITTTD) defines SIA as a process that moulds a student's knowledge; which is the students ability, skill and understanding of information that every student requires to perform efficiently and effectively. Abiodun (1999) concurs with ITTT's definition but goes on to say this process requires that the student be under the supervision of a qualified person. Abiodun (ibid) goes further to explain that trainees subjected to the right environment contribute to increased productivity. Oguntimehin (2001) supports Abiodun's assertion by postulating that industrial attachment conducted in the right atmosphere improves skills, knowledge, understanding and attitude, as well as enhanced use of tools and machines. Arikewuyo (1999) argues that effective industrial attachment is an indispensable component of developing students' competences in their areas of specialization. He further states that this process can only achieve desired results if students are placed under the supervision of experienced and seasoned personnel.

Therefore one can conclude that internship is an expert supervised process of transferring skills, knowledge, attitudes and information to students as a way of enhancing their efficiency and effectiveness in their area of specialization.

## 2.3. Importance of SIA

As discussed from the preceding information, the SIA programme is aimed at enhancing students' efficiency and effectiveness at the workplace. According to Hodges and Burcell (2003), work integrated programmes serve the purpose of preparing students for the workplace by identifying and developing the important competencies that are believed to be needed by employers. Leong (2004), and Ryan and Imel (1996), postulate that the SIA programme imparts knowledge to students through active behaviour as it is through what a person does that effective learning takes place. Attachment also allows students to effectively learn as it allows them to acquire job experience and reinforce academic instruction through the use of applied learning opportunities (Bailly and Merritt, 1997). According to the National Employer Leadership Council, (NELC), (1999) host

organisations economically benefit from internship as their productivity increases and labour hiring costs reduce during the attachment period. Thus host organisations make savings through reduced costs and increased output.

On the other hand, institutions of learning from which students come, also benefit from the SIA programme as it provides them with an opportunity to improve their curricular. Gumbe, Svotwa and Mupambireyi (2012) point out that this can be inferred from the studies that were carried out by Samuel (2005) in which he reports that the Industrial Training Fund in Nigeria established the existence of a wide gap between theory and practice of engineering and technology and other practically oriented courses. Therefore one can conclude that findings of this nature spur learning institutions to improving their curricula to meet industry needs. This is confirmed by Ogunlade's findings (2009) at Riyadh College of Technology which asserted that students had their academic skills improved after attachment as they had relevant academic knowledge.

## 2.4. Conditions for Effective Attachment

## **Relevance of curricula**

Effective attachment should achieve desired objectives (Baechle and Earle,2008). Baechle and Earle (2008) go on to outline objectives as specific and quantifiable statements of what a programme should achieve. Derrick (1969) postulates that students should be made aware of the objectives of industrial training- namely acquisition of professional, social and skills recognition, enhancement of personality and acquisition of status and money. Truelove (1997) argues that making students aware of the objectives makes students gain intrinsic motivation and confidence.

Rae (1998) argues that the school curricula must be relevant to the needs of society as a curriculum that does not address the needs of society is not considered worthwhile by society. Buckley (1990) supports Rae's assertion by adding that society determines what is worthwhile knowledge; desirable attitudes and relevant skills as it is the ultimate employer of the student after school. Dickinson (2010) concurs with the need for relevance of curricula but suggests that industry must play a key role in the development of curricula, thus the need for strategic link between industry and institutions of learning.

## 2.5. Quality of available resources

Olugbenga (2009) argues that for effective training to take place and to create skills that are relevant to the future during industrial attachment, institutions of training must have up to date technology. However, the technological environment is constantly changing making it difficult for institutions of higher learning to keep abreast with the changes. Finch and Crunkilton (1999) agree with Olugbenga's assertion and goes further to acknowledge that failure by institutions of higher learning to keep abreast with technology is difficult due to numerous constraint including finances. This has the effect of compromising quality of training, as postulated by Rae (1998) who argues that a student who is given inappropriate or inadequate tools may perform below their expected capabilities. Lucas (2005) emphasizes that learners must have access to the full range of modern equipment utilized in industry for training to be effective.

## 2.6. Quality of trainers

Monarth (2008) as cited in Gumbe, Svotwa and Mupambireyi (2012) acknowledges the role that trainers play in making students relevant in meeting society's expectations by emphasizing the need for trainers to keep their skills up to date and up to scratch. He further states that cutting edge trainers get inside the heads of trainees and creates new thinking and always sends to them the message of always finding new and better ways of doing things. This implies that the trainer has a critical role of shaping trainees and the quality of a trainee is determined by the trainer. Bottoms and

McNally (2008) and Dicknison (2010) agree with Monarth (ibid) but add that the trainer must ensure that training is timely and meet the real needs of society.

Rae (1998) adds another dimension to the role of the trainer by arguing that the trainer must be a role model of trainees. He postulates that trainers have a responsibility of molding the attitudes, beliefs and values of trainees through setting examples to be followed. Thus trainers have power to change the lives of their trainees by being role models. Lucas (2005) Rae (1998) and Furnham (2005) add other important elements for effective trainers as the need for them to be flexible (open minded) so that they are able to learn new things or receptive to new ideas; ability to motivate and reinforce trainees; should not be too qualified neither should they be under qualified for their job; should be professionally qualified in the area in which they are training and that they should be employable.

## 2.7. Attitude of students

Curacy (1976) argues that effective training takes place where trainees have practical knowledge of workmen in industry setting. Little (2010) concurs with Curacy, when he articulates the need for trainees to have a positive attitude towards work, fully committed, engaged and being prepared to take learning back into the work place. Dickinson (2010) states that trainees need to be bold, confident and ready to move into action during the learning process. Rae (1998) lists the following as critical elements of attitudes that should be found in students:

- i. Responsible- they should take responsibility of their own learning, thus the need to be attentive, observant and seek clarity where understanding is lacking;
- ii. Open- trainees should be able to say what they think and feel during training, thus the a ability to share their opinions with others;
- iii. Punctual- trainees should be time conscious, thus to come to work early and return from break times on time and
- iv. Co-operative- trainees must not be difficult to work with, thus should allow the trainer to show them the right way (correct procedures) of doing things from the start as unlearning may be difficult.

Kock, Auspitz and King (2000) argue that attachments can benefit both students and host organizations as depicted in Table 2.

Benefits for students	Benefits for industry partners
Putting concepts and theories learned in class	Hiring selected students with top potential, and
in practice, which adds a new and valuable	whose behavior and values match the firm's internal
"realworld" dimension to the learning process.	culture, customer orientation and mission.
Experiencing first-hand professional issues in	Creating the appropriate climate for change due to
their chosen fields.	the infusion of new ideas.
Establishing company contacts that may lead	Absorbing new concepts and ideas that may be used
to future employment.	to boost competitiveness.

Table 2 : Potential Benefits of Course Partnerships

From *Table 2* above, it is quite evident that students benefit a great deal from attachment in that they can operationalize theoretical concepts learnt in class, experience first-hand professional issues in their chosen fields as well as establishing company contacts which may lead to prospective employment in the short to medium term. On the other hand, industry also benefits in a number of ways from the SIA programme. Host organizations can monitor the behavior of students on attachment and ultimately they can hire students whose values match the firm's internal culture and mission. Students can also bring new ideas and perspectives during the attachment period which the host organizations can tap in.

## 2.8. Challenges to attachment

Carlson (2002) as cited in Gumbe, Svotwa and Mupambireyi (2012) identified the following as challenges that are associated with attachment and these include competition for attachment places from other institutions; rough and tough work environment for students; male dominated working environment for female trainees and high expectations by firms accepting attachees. Carlson's (ibid) assertions on industrial attachment are corroborated by Afonja et al (2005), however Olugbenga (2009) concurs with the former authors but adds that students on industrial attachment also face financial challenges. Despite the challenges faced one can conclude from the reviewed literature that attachment programmes play an important role to both industry and attachees.

## 3. Methodology

## 3.1. Introduction

This study employed a survey research design. The survey utilized a questionnaire that has a 5point Likert scale having the items: strongly agree, agree, neutral, disagree and strongly disagree. The instrument was selected based on its feasibility to measure perceptions of industry on the industrial attachment programme of BU. Seventeen items related to perception were developed and deployed for data collection. A survey was then conducted among two hundred service, commerce and manufacturing industry managers. Institutions targeted included schools, colleges, universities, manufacturing companies, and any other service industries that take BU students for attachment. Results were presented using graphs.

To ensure content validity, this survey instrument of this study went through a multi-step development. In the first step, seventeen questionnaire items were developed to measure the perception of industry of the BU student attachment programme. In the second step, the questionnaire was pilot tested with 3 institutions that have a history of taking BU students for attachment. In the light of the suggestions from the 3 institutions, the questionnaire was revised for clarity. To ensure reliability, a large sample from the population of institutions that take BU students on attachment was used. All scores were rounded up to the nearest whole number for ease of analysis.

## 3.2. Population

A population consists of all items or individuals about which you want to make a conclusion (Levin et al, 2011). The population for the study included all the 601 schools, colleges, universities, private and public companies and Government institutions where BU students were attached to, that is, from 2011- 2013. However, the scope of the study targeted formal institutions based in Gaborone where BU students went on attachment over the last three years.

## 3.3. Sampling, Sampling Procedure and Sample Size

A sample is the portion of a population selected for analysis, (Levin et al, 2011). This study employed convenience sampling. Convenience sampling is where a sample is selected by some arbitrary method, for example on the basis of accessibility and also because it is known to be representative of the total population, or it is known that it will produce well matched groups. The idea is to pick out the sample in relation to some criterion, which are considered important for the particular study (Singh, 2006). Convenience sampling is associated with advantages such as the use of the best available knowledge concerning the sample subjects, better control of significant variables as well as the homogeneity of subjects used in the sample. On the other hand, there are limitations associated with convenience sampling which include the fact that knowledge of population is essential as well as errors in classifying sampling subjects. Based on convenience sampling, a sample size of 200 was selected for the study.

## 3.4. Instrumentation and Questionnaire Administration

A semi-structured questionnaire was used for this study. The questionnaires contained questions on the attachment procedures, background of the host organisation, relevance of BU taught courses and BU support for industrial attachment. Semi-structured questionnaire is a type of questionnaire that comprises a mixture of closed and open questions. They are commonly used in business-to-business market research where there is a need to accommodate a large range of different responses from companies (Given, 2008; Willis, 2004; Sapsford & Jupp, 2006; Peterson, 2000). The use of semi-structured questionnaires enables a mix of qualitative and quantitative information to be gathered and hence enriches research results (Sapsford & Jupp, 2006; Peterson, 2000; Bradburn, Sudman, & Wansink, 2004). They can be administered by mail, handed over directly or face-to-face.

## 4. Results and Discussion

This questionnaire was distributed to 200 respondents and 150 were completed and returned which represents a response rate of 75 %.

## 4.1. Types of attachment institutions

The majority of BU students (70 %) were attached at private companies, while Colleges and Universities do not seem to be interested in attracting BU Computing students for attachment. These results may imply that private companies are more IT driven in their operations than Schools, Colleges, Universities, as well as Government Institutions and others. This finding confirms Leong's (2004) finding that students should learn better on the job by performing and using the actual tools for the job.

## 4.2.Number of years taking students for attachment

70 % of the companies have been taking students for attachment for a period ranging between 0 and 4 years. This finding may indicate that respondents have adequate experience and relevant perceptions with the programme of attachment hence their feedback can be taken to be very relevant to this study.

## 4.3. Number of students taken on attachment by institutions

Results showed that 90 % of the institutions have not taken more than 2 students for attachment. This may be due to resource constraints on the part of host organizations. Finch and Crunkilton(1999) assert that higher institutions and industry are faced with numerous challenges regarding the SIA Programmes, the major one being lack of finance to keep abreast with technology.

# 4.4. Industry taking students on attachment based on BU

## Recommendations

Results confirmed that 60 % of the respondents take students on attachment based on recommendations from BU. The National Employer Leadership Council (1999) points out that host organizations economically benefit from SIA Programmes as their productivity increases and labour hiring costs reduce during the attachment period. Hence, this could be the driving force behind the idea of taking students at host organizations as confirmed by 60 % of the respondents.

## 4.5. Partnerships with BU in curriculum development

Respondents were asked whether they are involved in curriculum development and 60 % of the respondents indicated that they were not involved in BU curriculum development. This finding disconfirms literature according to Hodges and Burcell (2003) who argued that intergrated programmes prepares for the workplace competencies needed by the employer. Buckey (1990) also supported the view of Hodges and Burcell (2003) that society should determine what is worthwhile knowledge, desirable attitudes and relevant skills as it is the ultimate employer.

### 4.6. Appreciation of Industry on BU SIA Programme

Respondents were also asked to provide their opinions on whether they appreciate the relevance of the need for the BU SIA Programme and 90 % of the respondents confirmed that they do appreciate the need for BU SIA Attachment programme.

### 4.7. Alignment between theory and practice

Respondents were also asked whether there is an alignment between the theory that is learnt by students and what they really practice during attachment and 50 % of the respondents were of the opinion that indeed there is an alignment between theory and practice. Curacy (1976) pointed out that effective training takes place where trainees with practical knowledge of workman in industrial setting, while Lucas (2005) emphasized that learners must have access to the full range of modern equipment utilized in industry for effective training. In this instance, the SIA Programme helps students to align theory into practice.

#### 4.8. Timing of Industrial Attachment

The respondents (60 %) felt that the timing for the SIA Programme was appropriate. Dickinison,(2010) concurred with Bottoms and McNally (2008) that training must be properly timed and meet the real needs of the society at that particular time.

#### 4.9. Duration of attachment

The industry was indifferent as regards the duration of the SIA Programme. The duration for the BU SIA Programme which is six months may need further research to determine the appropriate period.

#### 4.10. Relevance of Skills

Respondents were asked to give their opinion as regards whether students came for attachment with the requisite skills or not and 70 % were in the affirmation. This finding suggests the curriculum that students get at BU is relevant for the industry and that the industry is also consulted in the development of curriculum at BU.

#### 4.11. Attitudes of students towards BU SIA Programme

Survey results showed that 70 % of the respondents were of the view that students came for attachment with the right attitudes. This finding is confirmed in literature by Dickinson (2010) and Rae (1998) who came up with a list of the common attributes related to attitudes that students should have when they come for attachment. These include, but not limited to confidence, boldness, readiness to learning, responsible, open minded, punctuality, cooperativeness, just to mention but a few.

Item Summary	SA	A	N	D	SDA
Industry's perception on SIA in relationship to students.			2018	3 282	Second Second
Students placed in relevant industry	30	30	30	10	0
Students gain skills	10	30	60	0	0
BU students perform critical roles	30	50	10	10	0
BU students benefitting	30	60	10	0	0
BU curriculum not adequate	10	20	50	20	0
Students gain enough experience	40	30	20	0	10
BU and industry share information	30	40	10	10	10
Soft skills development	10	70	20	0	0
Industry's perception on SIA in relationship to BU SIA Programme.	2 2 200000	0 200025		8	8. 26.
Industry benefit from attachment	50	50	0	0	0
BU provides expected student roles on attachment	40	50	10	0	0
SIA important	90	0	10	0	O
BU and industry communicate	60	0	30	10	0
BU, industry partnerships	10	10	10	60	10
Industry's perception on SIA in relationship to itself.	-				-
Industry to pay students	60	20	10	10	0
Industry ready to receive students	30	50	10	10	0
Industry challenged	10	10	40	30	10
Former students employed	0	40	30	10	20

Table 3: Industry Perceptions towards particular items on SIA

#### *Table 3* above was used to explain items 4.2.1 to 4.2.4.

## 4.2.1. Industry's perception on SIA in relationship to students.

In general, 60 % of the respondents were of the opinion that students were placed in the relevant industry, and in the process gaining the relevant experience as confirmed by 70 % of the respondents. Furthermore, 80 % of the respondents had a feeling that students performed critical roles in the assigned job responsibilities, resultantly benefiting from the SIA Programme. Again, the industry felt that students were developed relevant soft skills in discharging their duties. Little (2010) points out that there is need for trainees to have a positive attitude towards work, fully committed, engage and being prepared to take learning back into the workplace.

## 4.2. 2. Industry's perception on SIA in relationship to BU SIA Programme.

From the research results, 90 % of the respondents revealed that they received clear communication from BU with regard to the expected roles of students on attachment. Furthermore, there is a healthy working relationship between BU and the industry as reflected from *Table 3* above, that is, 60 % confirmed that there is good communication between BU and the industry, 70 % had a strong feeling that BU and industry share information regularly. As regards the importance of the SIA Programme, 90 % of the respondents were of the view that the programme is very important, only as little as 30 % were of the opinion that the curriculum was inadequate. The research findings also unveiled that 20 % of the respondents had partnerships with BU which are outside the attachment.

## 4.2.3. Industry's perception on SIA Programme in relationship to itself.

The research findings also revealed that 100 % of the respondents appreciated the SIA Programme, 80 % of the respondents indicated that they were ready to receive students on attachment, in addition, 80 % of the respondents were ready to pay students some stipend confirming that the SIA Programme is very relevant. Most importantly, a substantial 40 % of the respondents indicated that they provide employment to former attachees.

## 4.2.4. Conclusions and Recommendations

The findings confirm that BU SIA Programme is very relevant to both industry and the University as they mutually benefit. BU could be satisfied that it is a relevant economic player with regard to human resource development, as they are meeting their quality policy which states that the main goal of the institution is to produce globally employable graduates who can be absorbed by the labour market.

The following recommendations resulting from the findings can be proffered:

- To reconsider the six months duration for attachment
- Involvement of the industry in BU curriculum development

## 4.2.5 Research Limitations and direction for further study

The major limitation of the research was that it was conducted only in Gaborone, Botswana's capital and due to time constraints, other geographical areas where BU students were attached were not sampled. Research findings may not be generalized to such areas. Further study needs to examine the perceptions of students who would have gone on attachment in order to refine the SIA Programme since students are one of BU's major stakeholders.

## 5. References

Abiodun, F.J.A (1999). Human Resources Management, An Overview, Lagos: Concept Publication,
Afonja, A.A., Sraku-Lartey, K and Oni, S.A (2005) Engineering Education for Industrial
Development : Case Studies of Nigeria, Ghana and Zimbabwe. Nairobi: ATPS Working Paper.
No. 42. The African Technology Policy

- Arikewuyo, M.O (1999). Improving Teachers' Productivity in Nigeria, Basics of Education, Lagos: Triump Book Publishers
- Baechle, T.R & Earle, R.W (2008) Essentials of Strength Training and Conditioning, *European* Journal of Innovation Management, 6(1): 41-52
- Bottoms, G,& McNally, K (2008) *Actions States can take to place highly qualified career or technical teacher in every classroom*, Atlanta: Sourthern Regional Education Board
- Boynton, P.M & Greenhalgh, T(2004). Selecting, Designing and Developing your Questionnaire. *BMJ*, 328:1312-15.
- Bradburn, N., Sudman, S., & Wansink, B. (2004). Asking questions: the definitive guide to questionnaire design. San Francisco: Jossey-Bass.
- Carlson, A.C (2002) 'The Benefits of Work-integrated Learning', ITE Teachers' Conference, Malaysia
- Curracy, C,W (1976) 'The Changing Work Ethics: Implications for Vocational Agriculture Programme. *The Agriculture Education*, 49 (1): 4-9
- Derrick, T(1969) 'The Effect of Industrial Training on Engineering Undergraduates. *Education* and Research, 70(12), 67-69
- Dickinson, B (2010) 'Riffs and Jams, Beside and Seaside.' The Training Journal. 10(1): 1-17
- Finch, C, R. & Crunkilton, J, R (1999). Curriculum Development in Vocational and Technical Education: Planning, Content and Implementation, 5<sup>th</sup> Edition, Boston: Allyn and Bacon
- Furnham, A. (2004). Learning at Work, New York: Macmillan
- Gumbe, S.M, Svotwa, T.D & Mupambireyi, F.P (2012) "Students' Perspectives of the Industrial Attachment Programme: A Study of University of Zimbabwe Faculty of Commerce Students (2010-2011)" International Journal of Physical and Social Sciences, 2, (9): 12-36
- Hodges, D & Burchell, N (2003) Business Graduate Competencies: Employers' Views on Importance and Performance, *Asia-Pacific Journal of Cooperative Education*, 4(2): 16-22.
- http://www.bothocollege.ac.bw. About Botho University, Accessed 20 March 2014, 1600hrs
- Kock, N, Auspitz, C & King, B(2000) "Using The Web to Enable Industry-University Collaboration: An Action Research Study of a Course of Partnership" Special Series on Organizational Learning, 3(3): 157-166
- Leong, S (2004). How To Develop Talent for Training, New York: Management Books
- Levin, D.M, Krehbiel, T.C, Berenson, M.L and Viswanathan, P.K. (2011). Business Statistics, A First Course, 5th Edition, New Delhi: Dorling Kindersley (Pvt) Ltd
- Little, B (2010) Competency Capers. Training and Development Journal, 10(3):32-47
- Lucas, R, W (2005). People Strategies for Training, New York: American Management Books
- Monarth, H (2008) 'Trainers: Superstars of the Organization' *Training and Development Journal*, 6(4): 63-71
- National Employer Leadership Council, (1999). Intuitions confirmed: The bottom-line return on school-to-work investment for students and employers, Washington DC
- Olugbenga, A,F (2009) 'Towards Effective SIWES Curriculum Development in Applied Sciences for Adequate Skills Utilization: A Case Study of the School of Applied Science, Nuhu Bamali Polytechnic, Zaria' *Pacific Journal of Science and Technology*, 10(1): 234-239
- Oguntimehin, A (2001). Teacher Effectiveness: Some Practical Strategies for Successful Implementation of Universal Basic Education in Nigeria. *African Journal of Educational Management*, 9(1): 151-161
- Petter, J (2009). Learning To be a Person in Society, London: Routledge
- Peterson, R. A (2000). Constructing Effective Questionnaires. London: Sage Publications.
- Rae, L (1998). Using People Skills in Training and Development, London: Kogan Page

Samuel, F (2005). *SIWES Orientation Programme of the Federal University of Technology.* Paper presented by the Industrial Training Fund. Minna, Nigeria, July

Sapsford R. & Jupp V. (2006). Data Collection and Analysis. London: Sage Publications.

Singh, Y, K (2006). Fundamental of Research Methodology and Statistics, New Delhi: New Age International (Pvt) Ltd

Truelove, S (1997). Training in Practice, Maldon: Blackwell Publishers

Willis, G. (2004). Cognitive Interviewing: A Tool For improving Questionnaire Design. New York: Sage.