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The Industrial Attachment Programme - History, Benefits, Challenges and its Adoption in Zimbabwe: A Review

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Abstract

Tertiary education institutions are seen to be increasingly incorporating industrial attachment as a training methodology. This is happening with the private and public sectors. It is of the view that during the industrial attachment phase, the student is accorded an opportunity to marry theory learnt in the classroom with the real field of work. Among other training methodologies, industrial attachment was found to be key with respect to professional etiquette doing extremely well in combination with other methodologies. This review paper covers history of industrial attachment, benefits derived from the Industrial Attachment Programme (IAP) by the students, tertiary education institutions, host organizations and the industry at large. The paper also highlights challenges faced by key players in the circle of the IAP. The review will assist in improving the way institutions of higher learning, government departments and host organizations conduct the programme to enhance the multiplier positive effects and minimize the costs of the IAP.

Keywords: Benefits, Challenges, Host organisation, Industrial attachment, Students, Tertiary education, Training methodology.

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Contents

Contribution of this paper to the literature
The paper brings forth history, development and adoption of the Industrial Attachment Programme emphasizing the Zimbabwean context. Challenges and benefits attached to the Industrial Attachment Programme are broadened from the students to tertiary education institutions, host organisations and employers. Strategies to improve the Industrial Attachment Programme are also a major contribution to the literature from this paper.

1. Introduction

Tertiary education institutions focus to a larger extend on professional career development. These include universities, polytechnics, teachers' colleges, vocational training centers and agricultural colleges to mention some. The institutions can be either government (public) or privately owned. The institutions focus mainly on professional training using various methodologies for effective training (Mukabeta & Taruvinga, 2001). According to Edziwa and Chivheya (2015) there are numerous methods and materials with effective training techniques available to help prepare and equip students or employees to acquire relevant and appropriate skills for better performance (Eakins, 2005). Indeed, with the various choices at the trainer's disposal, it calls for close assessment to determine which methods to use and when to use them for effective and meaningful training (Enfield, 2001; Kolb, 1984).

With an array of training methodologies available in higher and tertiary education institutions, the Industrial Attachment Programme (IAP) is gaining momentum over others and is becoming an inevitable training methodology as Edziwa and Chivheya (2015); Mukabeta and Taruvinga (2001) denote. Whalley (1986) indicates that the system of industrial attachment in form of apprenticeship was first developed in the later middle ages and came to be supervised by craft guilds and town governments where a master craftsman was entitled to employ young people as cheap labour in exchange for accommodation, food, and formal training in. France, Germany, India, Pakistan, United Kingdom and United States are some of the countries which developed on job training as from the 9th to the 14th century, with guilds structured around apprentices, journeymen and master craftsmen till 1791, when the guilds were suppressed.

Nowadays most organisations attach students for an allowance and at times regard them as cheap labour as highlighted by Edziwa and Chivheya (2015). Most trainees were males, however, female trainees are coming up responding to women empowerment programmes across the globe. Female trainees were found in crafts such as seamstress tailor, cordwainer, baker and stationer as indicated by Whalley (1986). Today, the IAP has spread to various sectors of the economy which include education, defense, agriculture, mining and healthy.

Barbeau and Stull (1990) indicate that industrial attachment has been considered a very important component in the learning system particularly for tertiary and higher education institutions. It relates to those pursuing various careers where there is much concern on the practical experience the students gain on the job market during the industrial attachment. This augments the theory students learn in the classroom. In this respect, strong linkages are compelled amongst the training institutions, organisations which place students on attachment (host organisations) and job market (Nziramasanga Commission, 1999).

Attachment of students during part of their training is a training methodology whose philosophical basis revolves around experiential learning theory. The underlying understanding or theory is that experience plays a crucial role in the learning process (Kolb, Boyatzis, & Mainemelis, 1999). Experiential learning is defined as the process whereby knowledge is created through the transformation of experience. Students gain experience to the extent that the period is considered for experience when they look for employment. Industrial attachment describes the form of learning whereby students have a chance to acquire and apply knowledge, skills and feelings in an immediate and relevant setting through the engagement of the body and mind through activity, reflection and application which tends to provide depth and meaning to a learning/training system.

In Zimbabwe, for instance cadres who went through the industrial attachment programme and were absorbed in various government departments which include Agricultural Education and Farmer Training, Department of Research and Specialist Services (DR&SS), Agricultural Technical and Extension Services (AGRITEX), Veterinary Services, Livestock Production (LPD) and Irrigation Services were underperforming as stated in the Department of Agricultural Education and Farmer Training Annual Report of 2012. Given these opposing views pertaining to ways in which the IAP is being conducted across sectors, there is need for a comprehensive review of literature on the history, how the programme is being implemented in various sectors and challenges being encountered during implementation so as to formulate policies and strategies for improving the programme performance and surpass its set intended objectives.

2. History of the Industrial Attachment Programme (IAP)

The system of on job training was first developed in the late middle ages and came to be supervised by craft guilds and town governments. Whalley (1986) indicate that industrial attachment started long back worldwide in form of apprenticeship where training took place under skilled mentorship. This did not spare any continent across the globe that is Africa, America (North and South), Asia, Australia and Europe. Bert, Kaplan, and Soly (2007) consider industrial attachment as a system of training a new generation of practitioners of a trade or profession with on-the-job training and often some accompanying study (classroom work and reading). A master craftsman was entitled to employ young people as an inexpensive form of labour in exchange of food, lodging and formal training in the craft. However this became controversial in other countries like Britain where it conflicted with the labour laws where the apprentices or on the job trainees were treated as cheap labour leading to a review and naming of the programme to on job skills training, attachment and internship covering different periods depending on the career being pursued and the labour market. All these practices and experiences spell a background to on job training which was developed to the scenario under study. It developed to date where industries embark on fulltime apprenticeship and the attachment of students for a period of one year and bellow marrying theory to practice.

France, Germany, India, Pakistan, United Kingdom and United states are some of the countries which developed on job training as from the 9th to the 14th century, with guilds structured around apprentices, journeymen and master craftsmen. It continued in this way till 1791, when the guilds were suppressed. Indeed, countries like France and Germany have succeeded in turning around their economy through a well-designed vocational/technical education system called the "dual system." This system created strong linkages between the industry and the training fraternity, (Andoh, Boadi, & Minlah, 2016). The success stories of Asian and Pacific countries are attributed to the drastic educational reforms which included the industrial attachment.

Whalley (1986) indicates that the French government pledged to further develop attachment as a path to success at school and to employment. In 2005, 80% of young French people who had completed an on job training secured employment. This shows that on job training prepares students for the job market however it has to be done in a way that addresses the needs of the job market so that the trainees become relevant and competent. Switzerland has the on the job training similar to Germany and Austria. The educational system was dual with mandatory practical courses with on job training programme ranging from 6 months to 4 years.

In India, the on job training Act was enacted in 1961 and implemented effectively in 1962. It regulates the programme of training of apprentices in the industry to conform to the syllabi and period of training as laid down by the Central Apprenticeship Council and to utilize fully the facilities available in industry. This enhanced imparting practical training to meet the requirements of skilled manpower for the industry (Ryan & Unwin, 2001; Vickerstaff, 2003). Initially the Act envisaged training of trade apprentices which was amended in 1973 to include training of graduate and diploma engineers as "Graduate" & "Technician" Apprentices. The Act was further amended in 1986 to bring within its purview the training of the 10+2 vocational stream as "Technician (Vocational)" Apprentices.

In Pakistan, the on job Training is implemented under a National Apprenticeship Ordinance 1962 and Apprenticeship Rules 1966. It regulates the on job training programs in industry and a TVET institute for theoretical instructions. The entire cost of training was borne by industry including wages to apprentices, however this had reduced the number of trainees accommodated by the industry. The provincial governments through Technical Education & Vocational Training enforced the implementation of apprenticeship to avoid it coming to halt due to challenges experienced versus the gains. The training period varied for different trades ranging from 1-4 years. As of 2015, more than 30,000 apprentices were being trained in 2,751 industries in 276 trades across Pakistan. This figure constituted less than 10% of institution based Vocational Training that is more than 350 thousands annually (Vickerstaff, 2003).

Recently, the government of Pakistan through National Vocational & Technical Training Commission (NAVTTC) has initiated to reform the existing system of the internship programme. This was done through the inclusion of services, agriculture and mining sector, cost sharing by industry and government, regulating and formalizing Informal Apprenticeships and Mainstream Apprenticeship Qualifications with National Vocational Qualifications Framework (Pakistan NVQF). Increased participation of females, training cost reimbursement (for those industries training more number of apprentices than the required), assessment and certification of apprentices jointly by Industry - Chamber of Commerce & Industry - Government - Apprenticeship Management Committee (having representation of 40% employers, 20% workers and 40% Government officials) were other reforms (Ryan & Unwin, 2001).

In the United States, apprenticeship programmes were regulated by the Smith Hughes Act, The National Industrial Recovery Act and National Apprenticeship Act, also known as the "Fitzgerald Act." The number of American apprentices had increased from 375,000 in 2014 to 500,000 in 2016, while the federal government intended 750,000 by 2019, particularly by expanding the apprenticeship model to include the white collar jobs such as information technology. The reforms of school to work education sought to link academic education to careers. Some programmes include job shadowing, where the student watched a real worker for a short period, or actually spending significant time at a job at no or reduced pay that would otherwise be spent in academic classes or working at a local business. Some legislators raised the issue of child labor laws for unpaid labor or jobs with hazards. All these practices are a form of attachment to equip trainees with the job competences. It is in view of the importance attached to this training methodology that triggers the researcher to assess the same practice for agricultural colleges in Zimbabwe. Universities in America use on job training schemes in their production of scholars while other universities, vocational training centers, polytechnics, teachers' colleges and agricultural colleges in most continents have reverted to the modern concept of internship that is the Industrial Attachment Programme (IAP).

In Singapore, it was adopted in 1983 at the Nanyang Technological University (NTU) in the Engineering section. Students were to apply the acquired professional knowledge and skills in actual planning, design, production, operation/ construction and maintenance (Hwang & Thim, 1995). In Australian Apprenticeships/ on job training covers all industry sectors and are used to achieve both 'entry-level' and career 'upskilling' objectives. There were 470,000 Australian Apprentices in-training as at 31 March 2012, an increase of 2.4% from the previous year. An average yearly increase of 2.4% of the on job trainees showed the appropriateness of the methodology in preparing trainees for the job market benefiting the training institutions, host organisations, students and the industry at large. The Australian government used Australian Apprenticeships Centers to administer and facilitate Australian Apprenticeships so that funding can be disseminated to eligible businesses and apprentices and trainees and to support the whole process as it underpins the future skills of Australian industry (Bert et al., 2007). This practice was also done in other counties like France, Canada, Ghana, Japan, Germany, South and North Korea to mention some, where organisations taking students for attachment got some payment and tax relief from the government promoting on job training.

In the Czech Republic, on the job trainees spend about 30-60% of their time in companies and the rest in formal education. Depending on the profession, they may work for two to three days a week in the company and then spend two or three days at a vocational school. In Canada, each province has its own apprenticeship program. The programme tends to be formalized for craft trades and technician level qualifications. In France, apprenticeships also developed between the 9th and 13th centuries, with guilds structured around apprentices, journeymen and

master craftsmen till 1791, when the guilds were suppressed (Ryan & Unwin, 2001). The first laws regarding on job training were passed in 1851. From 1919, young people had to take 150 hours of theory and general lessons in their subject a year. This minimum training time rose to 360 hours a year in 1961, then 400 in 1986.The first training centers for on job training appeared in 1961, and in 1971 on job training/apprenticeships were legally made part of professional training.

The French government pledged to further develop on job training as a path to success at school and to employment, based on its success in 2005 where 80% of young French people who had completed the on job training secured employment. The plan aimed to raise the number of apprentices from 365,000 in 2005 to 500,000 by 2009. To achieve this aim, the government is, for example, granting tax relief for companies when they take on apprentices/ on job trainees. Since 1925 a tax has been levied to pay for internships.

In Germany, there were 342 recognized trades where an apprenticeship can be completed. They include for example doctor's assistant, banker, dispensing optician, plumber or oven builder. The dual system meant that apprentices spend about 50-70% of their time in companies and the rest in formal education. In 2001, two thirds of young people aged under 22 began an apprenticeship, and 78% of them completed, meaning that approximately 51% of all young people under 22 had completed an apprenticeship. To employ and to educate apprentices requires a specific license. "Education of the Educators" license needs to be acquired through training at the Chamber of Industry and Commerce. This could be of value to the Zimbabwean system with licensed host organisations given an incentive.

In the United Kingdom, on job training had a long tradition dating back to around the 12th century and flourishing by the 14th century. In the 16th century the payment of a "premium" to the master was not common, but such fees became usual in the 17th century, though they varied greatly from trade to trade. The payment of a one-off fee could be very difficult for some parents and in the 18th century payment by instalment became frequent, this actually being required by law in 1768. In theory no wage had to be paid to an apprentice since the technical training was provided in return for the labour given. However, it was usual to pay small sums to apprentices, sometimes with which to buy new clothes. By the 18th century regular payments, at least in the last two or three years of the apprentice's term, became usual and those who lived apart from their masters were frequently paid a regular wage. This was sometimes called the "half-pay" system or "colting", payments being made weekly or monthly to the apprentice or to his/her parents.

In Ghana, Kenya, Nigeria and Botswana, the same concept was also adopted in efforts to improve the quality of the labour market. The designed an industrial attachment programme aimed at creating opportunities for industrial attachment to continuing students from different institutions of higher learning tailored in a way to improve labour market relevance and exposure. Andoh et al. (2016) indicate that in 1992 the government of Ghana enacted the Polytechnic law which empowered the polytechnic to run Higher National Diploma Programmes to train career or work oriented middle level manpower of higher caliber for employment and industry to enhance national growth.

The history of industrial attachment indicated that it was practiced in different forms worldwide as the researcher sampled across the continents. It was noted with great concern that the concept of the industrial attachment started long back and wasn't abolished by any country once started, however reforms were made for improvements for suitability and sustainability. Acts were put in place to govern and encourage industries to take students for industrial attachment creating stronger linkages between the training institutions and the industry. Zimbabwe cannot be spared from this effect since it has also adopted the concept. Agriculture hinges the Zimbabwean economy however the colleges which train the human resource are left out in some of the reforms such as the ZIMDEF and mechanisation. The students are being attached to unlicensed host organisations.

3. The Adoption of the Industrial Attachment Programme by Institutions of Higher Learning in Zimbabwe

In Zimbabwe, the concept of Industrial Attachment was also adopted in institutions of higher learning and led to the formation of National Manpower Advisory Council (NAMACO) and Manpower Development Fund (ZIMDEF) in 1984 (section 23 of Manpower Planning and Development Act 1984 now revised Manpower Planning and Development Act Chapter 28:02 of 1996). Under this Act, ZIMDEF was mandated to pay students studying in polytechnics an allowance when they are on work related learning. This followed consideration of Industrial Attachment as a pivotal aspect in the curriculum of higher and tertiary education.

It was practiced in teachers' colleges as Teaching Practice (TP) where students used to go for attachment in the second year of training in different schools being mentored by qualified teachers with their lecturers coming for assessment within specified boundaries. With the changes taking place, attachment now has five terms and four terms at the college indicating more value attached to the attachment programme. First two terms at college, followed by five terms on attachment and the last two terms at college. During this period, students earn an allowance from the government of Zimbabwe through the Salary Service Bureau (SSB).

Polytechnics had their students attached to organizations in practice of the area under study for one year having allowances from ZIMDEF and organizations they were attached to. Universities also had their students most of them in the third year of their degree programmes going for attachment to farms and various organizations depending on the faculty with allowances being paid by the organization to which the student is attached. Sammuel (2012) indicates the increasing need for industrial attachment where the University of Zimbabwe introduced it for the faculty of commerce in 2002 to augment the theoretical background of students. Bindura University of Science Education (BUSE) among other universities had also adopted it with a clearly laid down policy. Zimbabwe Republic Police (ZRP), Zimbabwe National Army (ZNA) and nursing had been seen to practice industrial attachment in different forms and at different levels. These were just some among various training institutions which practice industrial attachment.

Agricultural colleges which were a focus of this study operate under the Ministry of Lands, Agriculture Water and Rural Resettlement, the then Ministry of Agriculture, Mechanisation and Irrigation Development (MAMID) in the Department of Agricultural Education and Farmer Training (DAEFT) formed in 2004. These also adopted

the concept of industrial attachment as an appropriate method of training students job related skills. Edziwa and Chivheya (2015) indicate that this is done in line with the in-thing methodology of training advocated for in Zimbabwe's higher education nowadays (Nziramasanga Commission, 1999). Students in these colleges go for attachment in their second year of the diploma programme for 9 to 12 months. This is in pursuit of the idea mooted by Edziwa and Chivheya (2015) indicating that students should be initiated in both practical training and reflections grounded in real experiences rather than remaining conceptual. Students are attached in government departments, individual farms, nongovernmental organizations (NGOs) and private companies with agro-based enterprises. This shows that industrial attachment cannot be left out but what is now critical is the assessment of how it is run for it to remain relevant and efficient through formulation and enactment of sustainable reforms.

4. Benefits Derived from Industrial Attachment Programme

The increasing reforms and adoption of the industrial attachment programme world over becomes a clear indication of benefits experienced by the training institutions, students, host organisations and the industry at large. It therefore becomes an inevitable practice by different countries for the creation of a sustainable human resource to increase industrial productivity.

4.1. Benefits to Students

Attachments creates a platform for students to assimilate theory into practice. Gill and Lashine (2003) rightfully put it across by pointing out that the whole essence of learning is to put into practice the learned theories. Matamande, Taderera, Nyikahadzoyi, and Mandimika (2012) put across the main aim of the industrial attachment programme as for students to put into practice theories that would have been learnt during the first years at the college or university and are expected to create useful linkages with captains of industry having a general feel of the industry. Students get an opportunity to gain industrial experience and workplace skill sets. Williams, Sternberg, Rashotte, and Wagner (1993) indicate an average of 80% job prospect as a benefit to students who went through the industrial attachment programme. This is quite significant and attractive on the part of the students to partake the programme with the level of seriousness it deserves. Whalley (1986) indicates that the French government pledged to further develop attachment as a path to success at school and to employment, based on its success. In 2005, 80% of young French people who had completed an on job training got employment. This is a significant benefit whereby students and institutions of higher learning will be motivated in taking up the IAP.

Industrial attachment creates opportunities for student exposure to the practical world (Matamande et al., 2012; Williams et al., 1993). Edziwa and Chivheya (2015) also supported the idea by indicating that industrial attachment exposes students to the real world of work where students put into practice the theory and technical skills learnt in the lecture room. This in turn inculcates a positive attitude towards work in the students to an average of 70% as purported by Williams (2008). Students will become self-starters by going through the working environment thereby raising employment opportunities for themselves in the current dwindling employment opportunities where employers have raised a stake by looking for highly competent performers (Green, 1997).

The arrangement for students to be in various organisations for attachment is an academic requirement for students to gain relevant work experience and necessary skills. This augments their theoretical skills as they share the wider array of experiences when they return to the learning institutions or join the job market. King (1994) added by indicating more critical benefits in the development of self-confidence, time management, verbal and written communication and working on one's own initiative. This was also supported by Hughes and Moore (1999) when they pointed out that industrial attachment experiences are beneficial to students since they enhance their theoretical training. The experience increases self-confidence and also provide an opportunity to link with professionals in their respective fields.

Watty (2005) realized that attachment period exposes students to various working relationships with their seniors and peer workers and in the process, they get to learn about the type of work that they are involved in and this is in line with King (1994) who says, the student uses the attachment to gauge whether he/she is prepared to work with the prospective employer.

Edziwa and Chivheya (2015) indicate that this further enhances professional practice as the student would be better able to go out and contribute meaningfully in society and at the work place. The student directly encounters the phenomena studied as opposed to visualizing. This actually accords the learner room to construct knowledge, skills and values from direct experience.

Attachment enhances Cross-training which allows students to experience and practice different work related skills. Williams et al. (1993) indicates an average of 90% job guidance provided by the industrial attachment programme creating confidence in the students. The students develop confidence to join the industry being multi-skilled and competent enough. This does not only enhances employee skills but also gives companies the benefit of having employees who can perform more jobs. Cross-training also gives employees a better appreciation of what co-workers do and how their own jobs fit in with the work of others to achieve company goals.

Provision of attachments allow trainees to update their skills and knowledge in their trades, exposes them to new methods and materials, gives them a realistic and holistic impression of their trades and brings elements of realism into their training (Cort, Härkönen, & Volmari, 2004). Attachments are crucial in that they link training and the world of work especially in today's world where scientific and technological advances are continuously changing. Overally the industrial attachment programme assists the students in attaining a qualification which testifies their competencies in a specific field of work. An average of 88% trainees who went through the internship attained a qualification which also marks a great benefit to students since companies which are after qualitative production looks for such qualifications as prerequisite even for further interviewing. With such multi-benefits, students are motivated to take professional courses with an internship programme.

4. 2. Benefits to Tertiary Education Institutions

Institutions of higher learning also experience some gains as a result of the attachment programme. Clark (1994) says that they get feedback from the industry to make their training relevant resulting in them training

students acceptable to the industry. It is an opportunity for the job market to build confidence in the training institutions. Andoh et al. (2016) indicate that more than 70% of tertiary education institutions with students going on attachment have built networks which assist them in reviewing their curriculum towards addressing the stake holder needs. This resulted in an average of 80% of their students absorbed in the job market. This created relevancy to the training institution attracting more students and host organizations for student attachment. The institutions will be complemented in areas they are weak that is bridging the gap between the produced graduates and what the industry needs thereby creating confidence and strong linkages for institutions to remain relevant (Haupt, 2003).

Industrial attachment programmes are marketing forums for various tertiary education institutions, the more students do well, the more they market their institutions and ultimately the more reputable institutions become. The institutions eventually will be able to attract high caliber students (Mohamad, 2006). Industrial attachment also fosters close relationships between the industry and the training institutions. In this regard, institutions of higher learning raise their flags following addressing stakeholder needs in their curriculum. This is necessitated by the interactive mode of student training through the IAP.

4.3. Benefits to Host Organizations/ Companies

Host organisations continued to take students for industrial attachment from various institutions of higher learning indicating that they are realizing some gains. Edziwa and Chivheya (2015) indicate that some organisations used students on attachment as cheap labour reducing their wage bill by 10 to 15% which is quite significant. This enabled the host organization to channel the savings to other areas for business sustenance and expansion. Mgaya and Mbekomize (2014) concur by indicating that most companies experience an average of 4% cost saving through engaging students for industrial attachment. In one way or the other, organisations spend less in training employees who went through the attachment programme and their staff members who worked with the students on attachment.

By hosting students on attachment, the host organization identifies potential employees and retain them after completion thereby recruiting someone already familiar with the organization. Ayarkwa, Andinyira, and Osei-Asibey (2012) indicate that some organisations take in trainees to beef up their workforce and to be able to identify potential employees. Friedman (1983) spell out an average of 4.2% benefit on social responsibility of the organization through taking students for attachment. Organisations create good will thereby attracting more customers with the government reducing the levels of organisational tax hence increasing its profit.

Students on industrial attachment also assist current employees in increasing their skill level and knowledge base through research. Organisations which attach students have been seen to gain new perspectives and technologies with the scope of the student's programme and the students can also develop what is on the ground implementing what they have learnt. This was seen to benefit the organization with an average of 5% (Mgaya & Mbekomize, 2014). Interns offered new ideas and perspectives in the workplace. Students and fresh graduates tend to be more aware of current trends in technologies and this was an advantage to the host organization. Friedman (1983) and Barbeau and Stull (1990) add by pointing out that if employers have prior knowledge of the student expectations of the organisations, they are better placed to assist the students for successful entry into the industry. There are aspects of every profession that cannot be learned in the classroom, but must be learned where the profession is being practiced thereby compelling students to seek for attachment.

In Zimbabwe, Edziwa and Chivheya (2015) indicate that it is most likely that smallholder farmers needed to tap as much knowledge from the students as possible improving their production levels by at least 10% in circumstances where all the other requirements for production are put at their disposal. Friedman (1983) cited that the students were helpful, especially that they are enthusiastic about doing the work practically in a different environment other than a classroom becoming eager to learn the job and apply their skills. It was very common to find smallholder farms being manned by forepersons who do not have proper training in Agriculture, as most owners may not have adequate financial resources to employ trained agriculturalists. Therefore the attachment programme created an opportunity for about 55% of smallholder farmers to tap knowledge from these attachees. In this case, attachees were seen to work harder, sharing information with permanent employees, motivating workers and challenging them in terms of qualifications making them to work harder thereby improving productivity by an average of 10%. In such scenarios, there were high probabilities for such students to have gained less hence the need for close, thorough and complete assessment of the attachment places for suitability and assessment of the programme to balance the contribution by the respective stakeholders for a mutual benefit scenario.

4.4. Benefits to Employers.

Employers to some extend may fall in the same category with host organisations resulting in them sharing the benefits highlighted for host organisations. However not all employers take students for industrial attachment. Through industrial attachment, Edziwa and Chivheya (2015) indicate that a wider spectrum of choice for competent labour is created on the market. This reduced cost of training with employees well equipped with the trends of technological development felt by the students during the industrial attachment programme. If employers have prior knowledge of the student expectations of the organisations, they are better placed to assist the students for successful entry into the industry. Edziwa and Chivheya (2015) indicate that this further enhances professional practice as the student was better able to go out and contribute meaningfully in society and the work place.

It is realized that the stakeholders and participants in the industrial attachment programme benefit in one way or the other, however, assessment of the programme is seen to create more meaning and relevancy using the limited resources at the exposure of the students, training institutions and host organisations. Internship reduces the shortage of labour and skills in the job market since 88% of the students who went through the IAP are absorbed in the job market (Andoh et al., 2016).

5. Challenges Faced by Stake Holders during Industrial Attachment Programme

The industrial attachment programme with its benefits highlighted above, has also challenges which cannot be left out for effective assessment with respect to the area under study. Key participants which include students, host organisations and training institutions are victims of these in their endeavor for effective training in addressing stakeholder needs with respect to a set curriculum.

5.1. Students

Edziwa and Chivheya (2015) highlighted that in some developing countries placement of trainees is becoming problematic. About 10% of the trainees ended up being attached to centres that do not match their expectations. Some took long looking for attachment places being costly (Matamande et al., 2012) and students ended up being attached to organisations which were under capacitated for the sake of it hence delayed commencement. In Ghana, it was established that new owners of enterprises that used to offer on-the-job training for university students during vacation were no longer interested in the programme thereby reducing attachment places for the students. Therefore there is need to capacitate and adopt models which enhance efficiency in the industrial attachment programme. In some cases, students end up doing menial jobs and never do the essentials of the job as indicated by Dodge and McKeough (2003). Employees took this opportunity and leave students taking over responsibilities while they went for personal business. Student teachers are left to attend other students/pupils while in organisations they were left in charge of operations as managers. In such cases, the attachment programme will not meet the intended objectives yet it remained a considerable cost to the student, institution and the host organization.

In some situations, students were under supervision of untrained personnel and some host organisations found cheap labour in these students (Connor & Shaw, 2008; Edziwa & Chivheya, 2015). Students end up being victims of circumstances through inadequate training. Such experiences call for the need to closely assess the industrial attachment programme. Friedman (1983) indicated an average of 18% of the students on attachment being under the mentorship of unqualified and unskilled personnel leading to the students regarded as managers by the owners of the farms or organisations. This in turn created tension between the students and mentors who will be seen as core workers with mentors feeling belittled and threatened of their job positions. This results in students serving company interests not relevant to the training programme. Early assessment is therefore being called for to address the situation before the student and the training institution waste valuable resources. The companies range from very small, sole proprieted to big corporations listed in the Zimbabwe Stock Exchange. Of late students have gone regionally to countries like South Africa and Zambia which was a cost to the student and this student may not be assessed by the college (unstandardized assessment) (Gill & Lashine, 2003).

It is most likely that farmers needed to tap as much knowledge, from the students, as possible. It was very common to find farms being manned by forepersons who do not have proper training in Agriculture, as most owners may not have adequate financial resources to employ trained agriculturalists leaving students no room for growth and with poor remuneration. In such cases, the period for attachment was spent without learning as expected, in the end students getting scores which are not proportional to the level of skills acquisition as outlined in the programme. Very few or no students will raise it as an issue since they just want time to pass at the expense of going through the intended adequate training. In the end, the students completed the course being half baked.

5.2. Tertiary Education Institutions

Gill and Lashine (2003) indicate that a number of students joined small companies which had little scope for graduate training. This created a mismatch between what institutions produce and what the Industry required. Haupt (2003) outlines that there is a gap of what the institutions of higher learning are producing and what the industry needs. As a result of this gap, industries will be selective of institutions in placement of students for the industrial attachment programme. Due to standardized fee payment, training institutions went out of their way in meeting costs of visiting students for assessment throughout the country wherever they were attached regardless of the fees paid. Andoh et al. (2016) indicated an average of 12% additional costs, thus tertiary education institutions going well above their budgets. Some institutions had attachment fees gazzetted by the government without subsidies leading to incapacitation in the management of the industrial attachment programme. As the case with the agricultural colleges in Zimbabwe, attachment fees were pegged without reference to guiding parameters ending up with more than 15% of the students not visited for assessment or having other areas being compromised to make the intended visits on attachment.

5.3. Host Organizations

Host organisations may not have adequate resources to host the students and clearly laid down policies for student attachment which led to more than 45% of the organisations loosing focus (Andoh et al., 2016). Some organisations don't have the capacity to mentor students on attachment and were forced to go out of budget. (Edziwa & Chivheya, 2015). It was very common to find farms being manned by forepersons who do not have proper training in Agriculture, as most owners may not have adequate financial resources to employ trained agriculturalists. In this regard, payment of allowances to students was difficult from the farm produce leading to viraments or borrowings to keep students motivated since they were used as cheap labour. Tensions arose between the students and their supervisors in cases where the latter was not qualified enough to mentor the student. This resulted in compromised production levels and training standards. In cases where students were not given any allowance, theft cases were reported to be higher for students to earn a living.

6. Strategies for Improving the Industrial Attachment Programme

With the ever increasing levels in the adoption of the on job training programme, there is need to come up with strategies for improving the attachment programme. The strategies should include clearly laid down policies for the IAP by the government, tertiary education institutions and host organisations, creation of strong and clear linkages among the institutions, students and host organisations. In addition, mentors should be trained and

competent enough to provide the mentorship services for meaningful training. Cost reduction measures have to be in place with government paying allowances and reduce tax for organisations qualified for student attachment. Monitoring and evaluation systems have to be in place for sustainability of the programme.

Meyer (2008) highlighted the need for a clear policy for the IAP. The policy aspects may include student qualification, placement and assessment, roles of the tertiary education institution, host organization, responsible government departments and the student. The industrial attachment policy has to address the three drivers which are validity, equity and integrity. Validity ensures that training, placement and assessment are valid and reliable, actually doing what is expected while equity ensures that students are treated fairly and equitably across the mode of instruction, institutions and host organisations with appropriate consideration for issues of culture, language and disability. This will standardize operations since the institutions and host organisations were located in different provinces with different cultures, languages and dialects with attachment places being open to a student from any college. In some cases, students from different institutions were attached at the same place. Integrity will help in preventing and managing cheating across the participants where students may end up being scored what they don't deserve.

Creation of strong linkages among students, institutions and host organisations is also viewed as a key strategy. Meyer (2008) views lack of linkages resulting in individual approaches leading to lack of adequate funding, knowledge and basic resources for IAP enhancement. Creation of strong linkages will promote participation of students, institutions, host organisations and other stakeholders in a more meaningful and relevant manner. This helps to develop a sense of belonging for a common purpose in managing the IAP for agricultural colleges in Zimbabwe and globally.

Stephen and Jan (2009) indicated the need for trained and competent mentors and assessors. Training and assessment should be fit for a purpose. This should sample fairly the objectives and content of the course free from ambiguity having a clear and appropriate training, marking and assessing criteria fit for task and level of students. This calls for consistency where Meyer (2008) indicated that the definition of consistency is consistent with that of reliability. That is giving accurate representation of each student performance and fairness by using methods which treat all the students the same so that they can meet the intended outcomes for the attachment programme. Training and assessment by trained staff will allow identification of improvements needed and feedback to the system. Mentors and assessors therefore need training and support in how to use assessment tools and mentoring strategies to promote meaningful student learning through industrial attachment. This will leave each part benefiting accordingly in the system, mentors receiving the respect they deserve commanded by their effectiveness in executing their mentorship role.

Costs attached to each programme have to be managed and minimized for sustainability (Meyer, 2008). Industrial attachment has direct and indirect costs met by the students, institutions and host organisations. Cost reduction measures has to be implemented without compromising the quality of training. Basic costs for IAP cover training, transport, fuel, communication, accommodation and allowances. Other countries such as Germany, Ghana and the United States of America crafted policies which encourage host organisations in taking more trainees for attachment through paying allowances for the students and reducing tax for participating companies. In this regard, training institutions, host organisations and students will be sensitized on the importance of the industrial attachment and this enhanced motivation to participate in the programme (Andoh et al., 2016); (Donkor, Nsoh, & Mitchual, 2009).

Other strategies for improving the IAP include monitoring and evaluation systems by the government, tertiary education institutions and the host organisations. Frequent supervision visits to students on attachment by the training institutions were indicated to improve the industrial attachment programme in many countries. This indicated that they are part and parcel in getting instant feedback (Donkor et al., 2009). This will enhance sound decision making for transformational training through the IAP, sourcing adequate funding and policy reviews for sustainability of the industrial attachment programme. Adoption of the highlighted strategies suitable for Zimbabwe and specifically for agricultural colleges will serve to enhance meaningful training addressing basic skills and knowledge acquisition in a sustainable manner.

7. Conclusion

Industrial attachment remarkably exposes students to the work environment creating opportunities to market themselves and link with potential employers. Various methodologies in training can be implemented in a blended way for best results out of the industrial attachment programme. It was also noted that there were benefits for students, institutions and host organisations derived from the programme. The IAP has been seen to have challenges experienced by the students, tertiary education institutions and host organisations and these have to be addressed for its successful implementation. For effective and efficient management of the IAP, strategies for improving the programme were also highlighted where the stakeholders have to come up with clear policies, adequate funding, trained mentors and assessors, monitoring and evaluation systems, timing and time frame for the IAP. The IAP was seen to be inevitable among the training methodologies in tertiary education institutions and cost reduction measures have to be sought and practiced for the programme to be sustainable. However, further studies on the role of host organisations and the level of objective accomplishment has to be done for stronger linkages and wholesome training and meaningful assessment.

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