

Industrial Attachment challenges: Lessons drawn from Gweru Polytechnic College in Zimbabwe.

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Abstract: *The study sought to establish challenges attaches face during industrial attachment. The examination of this topic was prompted by criticism of polytechnic graduates by employers for being improperly trained. The students on the other hand, lay the blame on industrial training environment. Solutions to the problems shall be used to improve industrial training so as to achieve human capital development. The researcher used open ended questionnaires, focus groups and interviews as data collection methods. Purposive sampling was used to select participants of the study in line with quantitative and qualitative research approaches used in data analysis. The participants were lecturers, students and workplace supervisors in Gweru city. The results of the study were thematically analysed. It emerged from the empirical findings of the study that shortage of attachment places, financial problems, inadequate training, inappropriate area-deployment and issues of student sexual harassment were challenges noted. This study recommended that adequate resources be mobilised towards student attachment and the colleges to have project establishments to help in relieving attachment places. There is also need to develop partnership with industry to easy placement of students, and to deploy attaches under supervision of qualified and experienced mentors. Furthermore, there is need for support from the government, private sector and other stakeholders.*

Keywords: *On the job training, Hands on experience, Industrial attachment, Technical Vocational Education.*

I. BACKGROUND

Technical Vocational Education and Training (TVET) has remained one and the most important strategy that when harnessed prepare youths for workplace employment. Polytechnics bear the responsibility to impart technical skills to the youths. Maclean and Wilson (2009)'s empirical studies noted the important role technical and vocational education and training (TVET) programs do. (TVET) institutions play an important role in helping youths in the acquisition of job skills and knowledge, enabling them to secure paid employment or make self-employment for a sustainable livelihood. In preparation for attachment students spend two years at college and one year on the job training. On the job training is then intended to complement what the attaché has learnt at college with what the job demands. In his research (Sekenu, 2004) postulates that the only way to empower the youth is to provide them with adequate and qualitative education in order to make them job creators and eradicate poverty. The only way to empower the youths is through TVET as observed by European Commission (2004).

There are multiple of complains raised by students who undergo industrial attachment. Some complained that many employers who take students do not give adequate on the job training. Further issues emerged are that some employers take students to enjoy cheap labour at the expense of the training they need. Shortage of attachment places has exacerbated the attachment obstacles to students. Most of these descriptions have prompted this research to evaluate challenges that affect students during industrial attachment. Industrial attachment is compulsory so that students can gain skills needed in the industry and there is no way in which a student can escape these challenges besides addressing the concerns. Contemporary debate focuses on employability skills, which expresses a view that graduates must come to workplaces ready to hit the ground running (Sheldon & Thornthwaite, 2005) in order to better face increased competition in the graduate employment market (Orrell, 2004).

1.1 Review of Related Literature

The new world economy requires innovation, training, reinventing in vocational education and entrepreneurship training that will significantly favour the youth. The African Union (AU) (2007) document on TVET states that that TEVT is important for national development for it promotes skills acquisition through competency based training. Technical and vocational education empowers the learner with skills, knowledge and attitude which increase prospect of future employment. This is made more effective through on the job training. Industrial attachment is here 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). Arikewuyo (1999) endorses 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. Polytechnic institutions shoulder the responsibility to see to it that attachees are deployed in areas that develop competences in their respective trades. According to Billet (2004), “the latest generic competencies are called employability skills.” These competencies were derived from discussions with employers about work related skills. The students gain communication, teamwork, problem solving, planning, organization, technology, learning, self management, and initiative and enterprise skills competences. The employers and polytechnics both need to support Industrial attachment as it is a shared responsibility.

In their cross-country study of engineering education in three countries, Afonja et al, (2005) concluded that, placement of students for industrial work experience is problematic. They observed that the situation is less serious in Zimbabwe than in Nigeria and Ghana as employers are reluctant to take on students. Employers who possess this attitude towards students would compromise quality of work-related learning leading to poor quality of graduates and vis a viz skills needed for employment. Given the importance of employers in work - based learning, it is difficult to imagine how any successful programme can function without the support of employers (Coll et al., 2002). Polytechnic students are facing challenges of shortage of industrial attachment places as thousands of students are also coming from universities grappling and jostling for inadequate training vacancies. In Zimbabwe many companies have closed leading to challenges of getting attachment places for students. As a result many students seek attachment in companies which do not specialise in their trades. Institutions of higher learning are always seeking for ways to ensure that students put into practice what they have learnt through industrial attachment (Clements, 2010). The aim is to produce graduates who are equipped to work in these industries as full time workers. Relevant deployment culminates into educative assessments. Wiggins (1998) views “educative assessment” as “deliberately designed programme to teach (not just measure) by revealing to students what worthy adult work looks like. Sadly, some employers who offer industrial attachment to students do not expose students to real practical experience they need.

Concerns of improperly prepared graduates emanate from the host organisations when they would want to offer permanent employment to graduates. Haupt (2003) outlines that there is a gap of what the institutions of higher learning are producing and what the industry needs. The attachment in organisations is meant to augment student abilities and skills so that the student would fit very well in the job market. Joshoua et al (2012)’s research on student’s placements opined that development of their skills and exposure to the work environment is the main reasons for organizations to place students.

Quality of supervision and assessment must pivots on suitable assessment techniques that triangulates among the lecturer, student and the workplace supervisor for beneficiation and value addition. Lack of knowledge in interpreting log book sections or the misunderstanding of the domain under assessment may force lecturers to make superficial comments about students’ performance and fail to deliver justice to the assessment process itself (Chinyemba & Bvekerwa, 2011; Chinyemba, 2011). These issues need to be looked at from both college’s and the employers’ point of view. Partnership of colleges and employers is paramount to address the challenges as a team.

More often than not attachees face a number of challenges during industrial attachment period as alluded earlier on. Afonja et al. (2005) concluded that placement of students for industrial work experience is problematic. Attachees face challenges of shortage of training equipment and poor relations with supervisors. These issues stifle effective industrial attachment. Female students also complain of sexual harassment by supervisors and employers and stiff competition from male attachees. Attachees also complain of inadequate finance to sustain their lives during attachment. Apart from high costs and financial challenges, attachment of students is flawed by an array of challenges as outlined by Carlson (2002) he identified the following as challenges that are associated with industrial attachment: Competition for attachment places from other institutions; rough and tough work environment for students. Cognisance of the problems this study attempted to establish challenges attachees face during industrial period.

1.2 Statement of the problem

One of the most important features of technical and vocational education and training is its orientation towards the world of work and the inclusion of work-integrated learning (Donkor et al, 2009a). There are several concerns being raised by employers on the colleges failing to produce graduates with relevant skills for employment. This has become a problem worrying stakeholders including students and lecturers because on the job training is done in the same industry or organisations. Many attachees shift blame to on job training environments. This study intended to establish challenges faced by attachees during industrial attachment.

1.3 Objectives of the Study

1. To explore challenges faced by polytechnic students during the industrial attachment period.
2. To proffer some intervention strategies to mitigate the student attachment problems.

1.4 Research Questions

1. What challenges affect students on industrial attachment?
2. What intervention strategies can be adopted to proffer solutions to the problems?

II. RESEARCH METHODOLOGY

The research adopted the quantitative and qualitative interpretive approach. It was a case study of the challenges faced by attachees from Gweru polytechnic. A case study is a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources (Yin, 2003). Data were collected through face to face interviews, open ended questionnaires and focus groups. Purposive sampling was used to select participants in the study. Twenty workplace supervisors, twenty attachees and twenty lecturers individually answered the questionnaires administered to them. Individual interviews were conducted with ten supervisors. Two focus group interviews of lecturers and students of ten participants each were conducted. The students focus group were those who had come from attachments and their perceptions were meant to minimise bias. Multiple methods were used in order to secure an in-depth understanding of the study. This study used various sources of data analysis so that diverse points and views cast light up on a topic. Denzin and Lincoln (2000) argue that this adds rigour, breath, complex, richness and depth in enquiry.

III. FINDINGS AND DISCUSSIONS

The major objective of the study was to establish attachment challenges faced by student attachees. The challenges were discussed as follows.

3.1 Inadequacy of Attachment places

Arikewuyo (1999) argues that effective industrial attachment is an indispensable component of developing students' competences in their areas of specialization. The importance of this type of learning component is marred by an array of inadequate industrial attachment places. The following table shows the views of the participants.

Table 1 Respondents' views on inadequacy of attachment places. N=60

RESPONDENTS	Strongly Agree	Agree	Neutral	Disagree	Total
Percentages	%	%	%	%	%
Students	40	45	10	5	100
Supervisors	50	40	10	-	100
Lecturers	45	40	10	5	100

Source: Survey

Results from the questionnaires show that all the respondents students (85%), lecturers (85%) and supervisors (90%) indicated that industrial attachment places are inadequate. As a result, some of the attachees end up being attached to companies which do not specialise in their trades. The net effect of this pattern of deployment is that attachees are not properly groomed in their trade. Hence, industrialists argue that they are improperly trained. Carlson (2002) agrees with the view when he says competition for attachment places from other institutions is rough and tough in the work environment.

The views from the interviews by attachees confirmed the inhibiting factors that leave many of the attachees facing chronic problems of inadequate attachment places. Such comments were propounded. One female student confirmed this and said;

"I think over 50% students do not fully benefit the attachment because the places are too few and the students are too many. This is compounded by the fact that many companies have closed."

"Due to placement desperation we end up begging some employers to take us even in trades slightly different from our speciality areas"

The above sentiments show the burden attachees have in finding places. It is likely that there is poor training of skills imparted to attachees. Some students may leave the organisations undertrained and would perform badly in future employment. Matamande et al (2013) bemoaned the challenges on attachees that, some students end up doing menial jobs and never really do the essentials of the job which are unrelated to their trades.

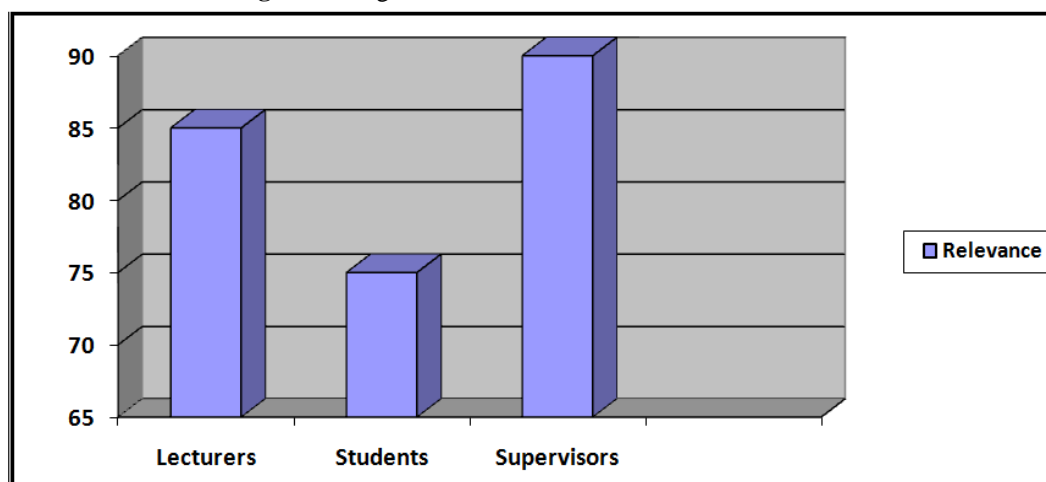
Interviewed lecturers confirmed the shortage of attachment places. The following were their remarks;

“We always give advice and assistance to attachees to be deployed in their career trades, but we are not above this problem.” said one lecturer.

The remarks are confirming what the students said about shortage of attachment vacancies.

3.2 Relevance of Attachment.

Fig I Showing results of relevance of attachment. N=60



Respondents’ views on attachment relevance, assistance and relationship.

Source: survey

Results from respondents show varying perceptions on the issues raised on relevance of attachment. Lecturers, attachees and supervisors positively agreed with students (75%), lecturers (95%) and supervisors (90%). However, students thirty (30) per cent of the students who disagreed indicated that some of the activities students do were not relevant to their areas of specialisation. This implies that the attachment places do not expose them to application of the skills required for their trades. This could be the reason why many companies are complaining of graduates with skills which do not match industrial requirements.

Results from interviewed supervisors agreed with views from questionnaires. Some of the supervisors made the following remarks on the relevance of industrial attachment.

“Our company is experiencing economic challenges and has scaled down its operations. This means that attachees do not get 100% experience of industrial life.”

“Proper Industrial attachment is feasible under a normal operating economy”

Remarks from these supervisors indicate that they are acknowledging that students are not having maximum exposure of industrial life. If the companies were operating at full capacity the attachees would be exposed to a wide range of skills. From the interviews lecturers’ views were in support of the views that were highlighted by both attachees and supervisors. “Some of the organisation that exposes our attachees are those that are still running and we are trying to assist students to be attached in relevant areas but we are defeated by the shortage of attachment openings.” The lecturer’s position indicated that the lack of attachment places inhibits full exposure of attachees. Atchoarena and Esquieu (2002) in their research highlighted the criticism that TVET institutions were unable to train skilled workers to meet the requirements of enterprises. Although attachees could complete the attachment their skills fall short of the employers’ standards making life more difficult for graduates. Below, the research went on to look at challenges of financial cost and sexual harassment.

Table II Challenges encountered by students while on attachment. N=60

CHALLENGES	RESPONSE RATE (%)		
	LECTURERS	STUDENTS	SUPERVISORS
Inadequate finance for students	100	100	100
Sexual harassment is rampant	5	40	5

Source: Survey

The questionnaire results of table 2 show that lecturers, students and supervisors are agreeable (100%) that finance for students affect attachment programme. Inadequate finance prompt attachees to fail to sustain themselves during the work related learning. Lack of finance may lead to low attachee motivation, student dropouts and absenteeism. The training under these circumstances would produce half baked graduates not ready for work. Lecturers (95%) judged themselves as in need of finance but students and supervisors (50%) each felt that lecturers are not affected as hard as the attachees. The bottom line is lack of finance affect industrial training at varying degrees and the attachees are the most affected.

Sexual harassment has been ranked (40%) by students, (5%) by lecturers and (5%) by supervisors. Despite small percentage-rankings the attachees have given it 40 percent signifying the impact it has on learners. It is believed that female students are the most victims who succumb to it when trying to balance financial needs and work needs.

The views that emerged from the students focus group denounce sexual harassment in work places. One female student lamented;

“There are many work irregularities that jeopardise industrial attachment training. Some demands from the supervisors may go beyond professional ethics. For instance, some of these mentors (males) may advance for having an inappropriate affair. Besides, he is my boss.”

The circumstances of this kind affect the attachees. One may fail to take attachment seriously and the female attachee may be victimised if the supervisor’s intentions are not successful. For instance, some supervisors take advantage of attachees who are desperate for money and may award unrealistic marks faking the attachee’s competences. Such practices are professionally unethical and results in production of trainees with very good passes but have very poor work related skills. The lecturers and supervisors decided not to say anything about this challenge. Reddan and Harrison (2010) warned that TVET institutions need to restructure their programmes to be responsive to the needs of the job and job market only.

3.5 Inadequate Training Equipment

The study has obtained positive information from the three categories of participants. All the participants agreed that some challenges in certain trades or disciplines are prompted by shortage of equipment. This has become one of the most daunting challenge because failing to acquire industrial skills means there is no value addition or benefits from the programme as shown by the statistics in the table 3.

Table III Showing challenges associated to learning equipment. N=60

Challenges	Lecturers		Students		Supervisors	
	100%		100%		100%	
	YES	NO	YES	NO	YES	NO
Inadequate equipment	60	40	70	30	50	50
Shortage of equipment	70	30	65	35	60	40
Inappropriate machines	50	50	60	40	50	50
Not allowed to use some equipment.	30	70	70	30	20	80

Source: Survey

Results of questionnaires indicated that (50%) supervisors, (60%) lecturers and (70%) students, all agreed that equipments for industrial attachment is inadequate. Where as inappropriate machines used in attachments were ranked as (60%) students, (50%) lecturers and (50%) supervisors. Although students claimed that they were not allowed to access the use of some machines for training the results showed students were (70%) disadvantaged against (20%) and (30%) for supervisors and lecturers respectively. From these results there is a clear indication that attachees are not fully exposed to the skills that they need to acquire when using machines. This in turn will result in attachees improperly trained due to lack of experiences that develop relevant trades. On this note Anderson (1993) and Rae (1998) have argued that a student who is given inappropriate or inadequate tools may perform below their expected capabilities.

The results of interviewed attachees also confirmed that attachment equipment is now obsolete, inappropriate and inadequate. One student lamented that;

“Some of the organisations are still using equipment which have over stayed, considering the magnitude of modern technology today. Where as in other places like the National Railways of Zimbabwe some machines have broken down and the organisation had since ceased to use them.”

One of the interviewed supervisors gave the following justification for not repairing of broken equipment.

“Companies are cash strapped and do not have money to repair broken down equipment.”

Remarks from the attachees and supervisors indicated that attachees are not exposed to adequate equipment because some of them are broken down. Olugbenga (2009) affirmed 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. Absence of up to date technology deprives attachees of the opportunity to develop some important skills in their trades. In view of this, the assertion that attachees are improperly trained can be true.

IV. CONCLUSIONS

If industrial attachment is properly planned and implemented it may be the panacea to solve death of skills needed for employment. This study has shown that polytechnic graduates are handicapped due to inadequate on the job training skills. Financial challenges, inadequate attachment openings, relevance of attachment, lack of free access to machines and equipment, inadequate training equipment in some organisations and sexual harassment have been noted to compromise training of attachees. An immediate intervention is needed to produce a crop of graduates with skills needed by employers.

V. RECOMMENDATIONS

Based on the findings of the study the study comes up with the following recommendations:-

- It is recommended that polytechnic institutions in Zimbabwe must have feasible projects establishments where a good number of students can learn practicals related to their trades.
- The polytechnic staff must assist all students to get attachment places in time and it is critical to establish good links with companies in order to secure attachment places.
- The polytechnic education must be given adequate resources by all stakeholders to enable these colleges train and produce a crop of graduates needed to transform the economy.
- There is need for professional development in dealing with attachment issues, both students and employer representatives to be appraised of college expectations on attachment. Workshops on workplace ethics must be conducted to protect attachees and eliminate issues of sexual harassment.

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