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Misozi Chiweshe, Emily Motsi and Xavier Edziwa
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ABSTRACT

The study sought to find out how students on the Bachelor of Education (Technical) degree programme rated the organization and quality of the Industrial Attachment component of the programme. Challenges students faced during Industrial Attachment were also examined. A case study design was used. Twenty-five final year students from the Home Economics, Building and Wood Technology and Design programmes participated in the study. A questionnaire was used to collect data. The students reported that the practice of them finding their own placement was not ideal and they did not have adequate orientation prior to their attachment. The duration of attachment was found to be insufficient. The students indicated that they had received adequate supervision, mentors were knowledgeable and highly skilled. The main challenges faced by students were financial constraints and the difficulty in securing placement. The study therefore recommended that the department takes a major role in placement of students for attachment. A more comprehensive pre-orientation programme should also be designed to adequately prepare students for the Industrial Attachment. The coordination of the Industrial Attachment needs to be a more efficient system that allows for constant and adequate tracking of all Industrial Attachment activities. The duration of attachment should be increased. Further more, the assessment of the Industrial Attachment should include a log- book which concentrates on evaluating the practical skills of the students.

INTRODUCTION

Technical and vocational teacher education needs to be responsive to rapidly changing student and workforce needs (Donkor, Nosh and Mitchual, 2009). As such, the inclusion of industrial attachment (IA) or work integrated learning or on the job learning in the curriculum is a common feature of technical and vocational education and training. A lot of attention has been given to work integrated learning in the school curriculum in Zimbabwe. As such, IA and training is included as a component in technical/vocational teacher pre and in-service training at college and university. Student participation in industrial attachment has been noted to be high in Zimbabwe as reported in a cross country study by Afonja, et al (2005) of engineering education in three countries, namely Nigeria, Ghana and Zimbabwe. Industrial Attachment and training is vital to human resource development in any nation. The significance of such programmes in Zimbabwe is recognized in the support offered by government and industry through the Zimbabwe Manpower Development Fund (ZIMDEF).

The main objective of IA is to provide students with an exposure to the real world of work. Through this exercise students put into practice the theory and technical skills learnt in the lecture room. As Hackett (in Shariff 2007) reiterates, students should be initiated in both practical training and reflection grounded in real experiences rather than remaining conceptual. This, as Hackett (Ibid) comments, further enhances professional practice as the teacher is better able to go out and prepare students in high school for success in further education and the work place.

Background of the Study

The Bachelor of Education (B.Ed) degree programme in the Department of Technical Education, University of Zimbabwe has always incorporated a supervised IA component. In 2003 the B.Ed Technical programme was reviewed and, under the new regulations, IA became a credit bearing course with 15 course units. The B.Ed Technical programme that commenced in 2008 was the first to have

IA as a credit bearing course. The IA takes place during university vacation periods and lasts for a minimum duration of eight weeks. During the exercise, students follow the normal eight hour work period of the host organization. The Department has a lecturer designated as the Industrial Attachment Coordinator (IAC) who is responsible for pre-attachment orientation, record keeping and communication with host organizations. At the end of the IA students are assessed using a student report with details of IA experiences and a supervisor/mentor's report from the host organization. The aims of the course are to:

1. expose students to the environment and related experiences of industry,
2. help students appreciate the strong links that exist between their B.Ed Technical degree programme and industry,
3. provide an environment which facilitates the development and reinforcement of skills initiated in the B.Ed Technical degree programme.

Since IA was only recently introduced as a the first credit bearing course, this study was initiated so as to evaluate the course. This assessment is considered to be more of a formative evaluation as it will be the start of an ongoing assessment that will provide vital information to monitor and improve the IA course. In evaluating the course, the researchers identified the following as critical' components to examine; i.e. the organization of the IA and the quality of the IA learning experience. Challenges that impact on the IA were also examined as these were considered to have an effect on the IA experience. The perceptions of students were considered to be the most critical factor in this study. The researchers acknowledge the importance of other stake holders such as the lecturers and mentors in host organizations in this study but made a decision to use students only as this would give a more precise measure of the IA learning experience.

Statement of the Problem

Industrial Attachment has been regulated as a credit bearing course in the Department of Technical Education beginning in 2008. No empirical study has been conducted to evaluate this programme. It was therefore deemed necessary that while it is still in its early phases of inception, the IA course be evaluated to examine issues relating to programme organization, quality of attachment experience and challenges students face during the attachment period.

Purpose of the Study

The purpose of the study was to examine students perceptions of the organization, quality of the IA experience and challenges faced during the IA exercise. Since this evaluation is formative in nature, students were also requested to express their views on possible changes that could be made in order to improve the IA programme.

Research Question

The following questions guided the study:

1. how do students rate the organization of the Industrial Attachment programme in the Department of Technical Education?
2. how do students rate the quality of the Industrial Attachment experience?
3. what challenges do students face when they are on Industrial Attachment?

THEORETICAL FRAMEWORK

This study was carried out within the framework of Stufflebeam's CIPP Model of evaluation, an acronym that stands for Context, Input, Process and Product (http://ged550.wikispace.com/Stufflebeam's+CIPP+Model). The CIPP Model is used both in formative and summative evaluation. In the context of this study, the model was used in the formative evaluation of the Department of Technical Education IA course at the inception level with the intention of identifying and subsequently

correcting any deficiencies in the course before it has progressed too far. As Doll (1978) points out, this formative function of the CIPP Model is used for the improvement and development of an on going activity or programme. The key emphasis of the model, according to Jenkins (1996), is decision making with the key activities being identification of up-coming alternatives, studying implications and set up and quality control. Its key purpose, as Jenkins (Ibid) further expands, is to facilitate rational and continued decision making. The model centres around four forms of evaluation namely, context, input, process and product.

The following is a description of Stufflebeam's (1971) conceptualization of the model. Context evaluation helps inform planning decisions, it also provides information for the development and evaluation of mission, vision, values, goals and objectives. The purpose is to identify and diagnose the problems or barriers which might inhibit achieving the goals and objectives.

Input evaluation provides information that serve structuring decisions. It helps to provide information about inputs, resources and existing conditions. The purpose of input evaluations is to examine strategies for achieving the plan, that is, time requirements, funding and physical requirements. It considers resources and barriers to overcome.

Process evaluation assesses the implementation of plans. The purpose is to provide decision makers with information necessary to determine how well the plan is being implemented and it identifies barriers that threaten the success of the program. An evaluator gives an interpretive description of the process, gives feedback on discrepancies and defects to the decision makers and comes up with the sort of revision that is required.

Product evaluation assesses outcomes (both intended and unintended) and determines whether strategies, procedures or methods being implemented to attain these objectives should be terminated, amended or continued in their present from. The process involves putting student's outcomes into question form and survey

pre and post. One then looks back to the original objectives in the context evaluations to see if and how they would be changed or modified based on the data.

The pros of this model are that it is a well organized frame work that evaluates a variety of things and focuses on decision making. This model is well summarized by Stufflebeam when he says that the CIPP Model's is not to prove but to improve, which was the main purpose of this study (http://www.hettler.com/Direct/assess/USING%20CONTEXT.htm).

METHODOLOGY

Research Design

This was a case study of the University of Zimbabwe, Department of Technical Education B.Ed 2010 final year students. A case study design was used because the study focused on one entity in a specific setting and, furthermore, results obtained are not generalized but applicable to this group only. All the twenty-eight students in the group were eligible for the study.

Participants

Twenty-five final year students in the 2010 B. Ed Technical degree programme participated in the study. Fourteen of the participants were females and eleven were males. All the females were studying Home Economics. Of the eleven males, four were studying Wood Technology and Design while seven were doing Building Technology and Design.

Instrument and Development

Data were collected using a questionnaire. Based upon research questions, constructs were identified and 22 items were crafted. Prior to constructing the questionnaire, expert opinions regarding IA were gathered and concepts and language to be used in the items were identified through literature review.

Items on the questionnaire were categorized into four areas. The first category required the participants' demographic data i.e. sex and programme. The second category sought the student's degree of agreement on a four point likert scale to measure organization of IA process and quality of the IA experience. The third category was made up of open-ended questions on challenges faced by the students during the IA process. The organization of the IA focused on the following constructs; placement and coordination of IA activities and duration of programme. Quality of IA was measured through the following constructs; benefit of programme, mentor quality and quality of supervision. The last subset of the questionnaire was designed to seek students' suggestions on the improvement of the IA course.

Validity and Reliability

Validity and reliability were determined by pilot testing of and consultation with experts in data analysis and on the feasibility of using the Statistical Package for the Social Sciences (SPSS) in analyzing such data. The revised questionnaire was pilot tested (n=3), with one student from each area of specialization randomly selected. Pilot testing was done to note readability, comprehensiveness and placement of items in the instrument. The instrument was then slightly modified according to feedback. The questionnaire was then finalized with 22 items.

Data Collection Procedures

Questionnaires were distributed in person in order to explain the purpose of the study to the participants. Students either completed questionnaires in the lecture room or at home. A minority of the students did not complete the questionnaire in the lecture room, either because they did not have enough time or because they preferred to complete at home. There was no 'apriori' reason to predict that location of questionnaire completion would impact on results. Completed questionnaires were also collected in person thereby achieving a 100% return rate.

Data Presentation and Analysis

The SPSS (windows version 10) was used for analyzing data on organization and quality of IA. The analysis included calculations of the frequencies, mean scores and the standard deviations. A mean score of 2.50 and above confirmed agreement while a score below 2.50 meaning disagreement. Open ended responses for challenges faced in IA were coded according to themes, tallies were made and a bar graph was generated using the Microsoft Excel software. Responses to suggestions for improving the IA were also coded into themes and presented as narrations.

RESULTS

The thrust of the study was to get the views of students on the organization of IA and quality of experience they got on IA. Focus was also on the challenges students faced and changes they felt necessary to improve the course. These variables were examined in terms of the placement procedures, coordination, period and duration, supervision and benefits derived from the course. Students were asked whether they agreed or disagreed with statements about a variable over a 4 point Likert Scale. In this study a mean of 2.5 and above denoted agreement and a mean below 2.5, disagreement.

Demographic Data

Table 1: Number of participants by programme and sex. (N=25)

Programme	Frequency		Total
	Female	Male	
Building Technology and Design	0	7	7
Home Economics	14	0	14
Wood Technology and Design	0	4	4
Total	**14**	**11**	**25**

There were 25 participants in total, with 14 females and 11 males. All females were enrolled in the Home Economics programme. Of the males, 7 were in Building Technology and Design and 4 in Wood Technology Design.

Perceptions of Students on the Organization and Supervision of IA

Students were asked to indicate their degree of agreement with each item 3-20. Table 2 is a presentation of the responses that were given by the students.

Table 2: Frequency and mean distribution of the rating of the students' level of agreement on the items of evaluation of the IA course.

	Statement	SA	A	D	SD	Mean (X)	Std. Deviation	Remark
3	Students finding own attachment is best	2	4	10	9	1.96	.93	Disagree.
4	Was able to secure attachment within three weeks	7	4	8	6	2.48	1.16	Disagree.
5	Lack of lecturer visits affected IA	9	8	1	6	2.83	1.20	Agree
6	There was adequate supervision by organisation	8	12	4	1	3.08	.81	Agree
7	Mentor was generally not knowledgeable	2	5	13	5	2.16	.85	Disagree.
8	Mentor was highly skilled	8	1	4	1	3.08	.83	Agree
9	Mentor not right person to supervise students on IA	1	8	9	6	2.17	.87	Disagree.
10	Pre-attachment orientation was	1	6	8	10	1.92	.91	Disagree.

	adequate							
11	Coordinator communication with organisation was adequate	0	4	8	12	1.67	.76	Disagree.
12	Coordinator communication with students was adequate	3	7	7	8	2.20	1.04	Disagree.
13	Duties within organisation were clearly assigned	7	17	4	0	3.12	.67	Agree
14	Was able to fulfill period of attachment	12	11	1	1	3.36	.76	Agree
15	Eight weeks of attachment was adequate	4	5	7	9	2.16	1.11	Disagree.
16	Proceeding to IA end of year one was appropriate	6	12	5	2	2.88	.88	Agree
17	IA acquainted me to how organisations operate	13	10	2	0	3.44	.65	Agree
18	IA made me appreciate link between courses and industry	6	13	4	2	2.92	.86	Agree

19	IA acquainted me with technology learnt at university	1	11	8	4	2.38	.82	Disagree.
20	Developed appreciation of significance of IA in school curriculum	6	15	3	1	3.04	.73	Agree
	Valid N (list wise)	21						

Perceptions of Students on the Organization of IA

The organization of IA was premised on the following constructs placement, coordination and period and duration of attachment.

Placement

Students were asked to indicate their levels of agreement with statements that; *students finding own attachment was best and they were able to secure attachment within three weeks* (Items 3 & 4, Table 2). They disagreed, at a mean of 1.96 and 2.48, with both statements. The implication is that the practice of letting students look for their own attachment places was not ideal. Finding own attachment seemed to have delayed the process of securing places of attachment.

Coordination

Students were asked whether they agreed or disagreed with the statements that; p*re-attachment orientation was adequate, coordinator communication with organisation was adequate and coordinator communication with students was adequate* (Items 10-12, Table 2). They disagreed with all the statements, at a mean range of 1.67-2.20. This implies that probably students were not fully aware of IA expectations and there could have been a vital missing

link in terms of communication between the department and organization.

Period and Duration

Students were asked whether they agreed or disagreed with the statements that; *eight weeks of attachment was adequate and proceeding to IA end of year one was appropriate* (Items 15 &16, Table 2). They disagreed, at a mean of 2.16, that eight weeks of attachment were adequate for them. However they agreed, at a mean of 2.88, that proceeding to IA end of year one was appropriate. The implication could be that the duration of IA was not sufficient enough for students to attain what they perceived as optimum levels of field experience. The students, however, felt going on attachment after first year was ideal.

Perceptions of Students on the Quality of IA Experience

The quality of IA experience was measured through the constructs; quality of supervision, quality of mentor and benefits derived from the course.

Quality of Supervision

Supervision affects the success and effectiveness of IA, hence quality. This supervision could be industry- based or college-based. Students were asked whether they agreed or disagreed that; *lack of lecturer follow up visits adversely affected IA and there was adequate supervision by the organization* (Items 5 & 6, Table 2). The students agreed, at a mean of 2.83 and 3.08 respectively, with both statements. This implies that the department's input, in the IA process, left some gaps which students felt negatively affected their workplace experiences despite the fact that there was supervision at industry level.

Quality of Mentor

The competence and proficiency level that a student reaches is heavily dependent on the quality of mentor and mentoring to which a student is exposed. Students were, therefore, asked to indicate

whether they agreed or disagreed with statements that; *mentor was generally not knowledgeable, mentor was highly skilled and mentor not right person to supervise students on IA* (Items 7-9, Table 2). The students agreed, at a mean of 3.08, that the mentor was highly skilled. They, however, disagreed at a mean of 2.16 and 2.17, with the other two statements. This implies that students felt mentors had relevant skills, hence gave them worthwhile experiences.

Benefits of IA

Meeting of course objectives may be portrayed in the form of benefits. Students were, therefore, asked to indicate whether they agreed or disagreed with statements that; *IA acquainted them to how organizations operate, IA made them appreciate the link between courses studied and industry and they developed appreciation of significance of IA in school curriculum* (Items 17-20 respectively, Table 2). They agreed, at a mean range of 2.92-3.44, with items 17, 18 and 20. The students however, disagreed, at a mean of 2.38 that IA acquainted them with technology learnt at university. The implication could be that IA created proper attitudes and values towards real work settings and an appreciation of its infusion into college curricula. Their disagreement could be implying there was no link between what was learnt at university and what prevailed in the industrial sector.

Challenges Faced by Students

Students were asked to indicate the challenges they faced while on IA. The challenges where put into key themes, Fig 1 shows the challenges as expressed by the students.

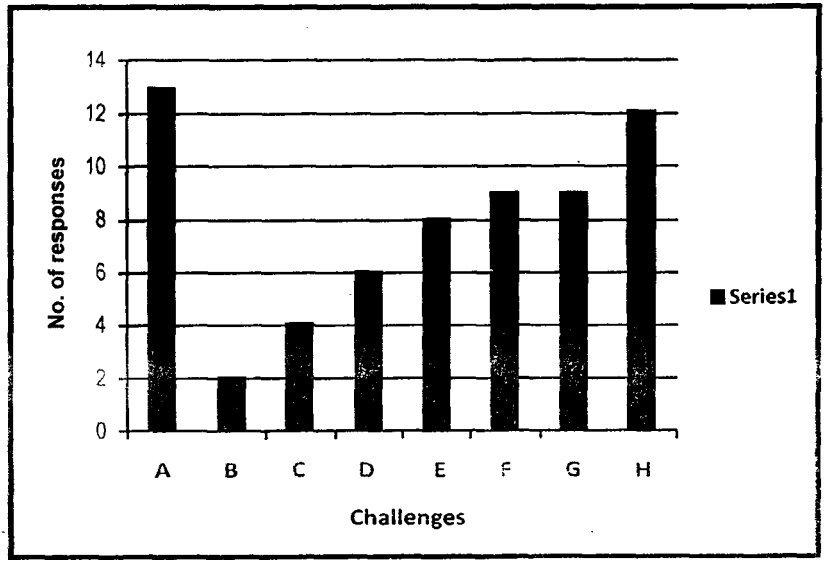

Figure 1: Challenges faced by students on IA

The most problematic challenges were financial constraints (A), followed by securing of attachment place (H). No added value to experience (F) and poor work environment (E) were the other challenges that were of concern to the students. Students also expressed moderately, limited time (D), inadequate resources (C) and inadequate orientation (B) as challenges that impinged on their IA. Only one student complained of scanty assessment forms (G).

Changes Proposed by the Students

Students were asked to recommend changes to organization, supervision and assessment of the IA course. The proposed changes that emerged on student placement were that the Department was to ensure quality placement. Students in Building and Wood Technology Design expressed much on reputation and relevance of organization and willingness of industries concerned. The department was encouraged to create permanent linkages with industries.

With regards to coordination the students recommended a need for more efficient coordination of IA activities. A more comprehensive pre-orientation programme was also suggested. Regular visits to IA sites by college lecturers were indicated as essential to ensure better department-student and department-industry coordination. Advance communication to students and mentors on guidelines and expectations was also essential.

Having raised concerns about inadequate lecturer follow-up visits students advocated for more regular visits by lecturers at least once or twice a month. Such visits would allow the lecturers to assess appropriateness of placements, address problems faced, assess activities, check on progress and make recommendations.

On the issue of period and duration of attachment students in Wood and Metal Technology suggested that the time slot to be changed to fit industry calendar hence not coinciding with annual shutdowns. The suggested time ranged from April to September.

The duration was to increase to 12-16 weeks to allow for more exposure and adequate practice.

Some definite changes to assessment of the IA course were raised. The format was to include both student report (theory) and practical components. Class presentations of IA experiences were also indicated as ideal. Confirmation/verification of student report by the host organization was also suggested.

DISCUSSION

Industrial Attachment aims at developing and enhancing the academic, personal, technical and professional competencies of students by exposing them to real life working environment. For this to be achieved, a well organized and coordinated scheme is crucial.

On rating organization of the IA, the general picture shown by students' responses revealed that the organisation of the IA course, by the Department, in terms of student placement, coordination and duration, left a lot to be desired. With reference to placement, the study found out that the practice of students sourcing their own places of attachment was not a noble move by the Department. This sometimes resulted in students failing to get placement in time or failing to get placement in established companies/organisations. This seems to be in agreement with a study by Wodi and Dokudo (2009) of Student Industrial Work Experience Scheme (SIWES) in Nigeria, who found out that 59% of the students in the scheme found it difficult to get a place of attachment with their employer. This problem of placement is further exposed in this study as more than half of the students cited securing attachment as one of the major challenges they faced (see Fig 1). This resulted in students spending a greater part of the first few weeks of the attachment period trying to secure attachment places.

The danger of letting students secure their own attachment is that there are chances of them getting attached to small organisations whose technological levels do not blend well with university subject matter. This is bound to impede the integration of classroom learning with practical experience in the workplace. A follow up study is probably essential for the Department to have an insight of the nature and quality of activities in which students were engaged.

Some institutions in developed and developing countries have circumvented problems of finding placement by creating strong relationships with related organisations (McMahon and Quinn, 1995; Tumba College of Technology, 2009 http://tct.ac.rw/index.php; Nanyang Technological University

https://www3.ntu.edu.sg/opawww/aims/default.asp). According to McMahon and Quinn (1995), an industry-education initiative between institutions teaching hospitality and hotel employers' groups in UK created a strong partnership that has seen students getting easy access to placement in the industry. In Malaysia, Universiti Teknologi Malaysia (UTM) developed, using MS Access, a directory of industries that once offered places for attachment to students. Students apply personally for places to the industries listed in the directory (Zaini, Songip, Manan and Kidam, http://eprints.utm.my/730/).

A closer look at students' responses on placement by programme, revealed that Home Economics students were the most affected in securing placement timeously (although no tests of significance in difference was performed due to limitations in population size). The likely cause could have been due to unavailability of traditional placement areas in the manufacturing industry and low level of activities in the hospitality sector at the time. On the other hand Building and Wood Technology and Design stude nts seemed not to have laboured much in sourcing placement despite the fact that the major manufacturing/construction companies were on an annual shut down break. Students therefore found placement in the small scale manufacturing industries with limited resources. Placement of students in such organisations is not ideal but students found themselves with no option. The proposed changes by Building and Wood Technology and Design students for reputable and relevance in places of attachment, could be an indicator that a majority of these students had been attached to organisations which had no capacity to boost their technical and design competency.

The macro economic issues facing the country during the period of study can be said to have had an impact on the state of technology within the industrial sector. Added to this the diminishing industrial sector could have created a situation were students were placed in not so well established commercial and industrial sectors. In calling for changes to the programme, students clearly highlighted this issue by recommending the placement in well established sectors that are likely to have adequate, appropriate and recent equipment. These

sectors are bound to meet the students' technical and design expectations of IA.

in terms of coordination, the findings show that there seem to have been inadequate pre-orientation of students and limited communication between Industrial Attachment Coordinator and student and Industrial Attachment Coordinator and organization. Students felt that the Department did not adequately prepare them for the IA. The students were not aware of the Departmental and work place expectations. Students should be adequately prepared for work place expectations and anticipated social challenges before they leave for IA. This helps them to have practical knowledge and insight into the attitudes of workers in an industry setting. The orientation also assists the students to settle well and be team players without being viewed as threats to workmates and their supervisors (Wodi and Dokudo 2009).

Students were also of the opinion that the coordination, right from orientation on IA at university to Department's coordination with attachment organizations was not satisfactory. This lack of coordination was also highlighted among the challenges students faced during IA. The role of the coordinator includes visiting students while on attachment, monitoring students' progress during attachment and communicating frequently with mentors in the organization throughout the attachment duration (Graduate Placement Services, 2009 http://recruitgrad.vtc.edu.hk/texte/home.htm). The failure by the Department to effectively coordinate the exercise could also imply that mentors were not fully aware of the anticipated on-the-job tasks for students. From literature, the norm in most institutions is that the attachment coordinator and mentor should come up with a relevant training programme.

When it came to duration and period of attachment, students expressed that the duration of IA was short. This finding is in agreement with studies by Leckey in Neill and Mulholland (2003) and Olugbenga (2009). Leckey conducted a placement survey of 438

students at Ulster University in which students were asked to list the three most disappointing things about their IA. Among the list, students cited placement being too short, as one of the most disappointing things about their IA. In a related study of students at Nuhu Bamalli Polytechnic in Nigeria by Olugbenga (2009), students expressed that the duration of Student Industrial Work Experience Scheme (SIWES) was also not enough for them to get adequate preparation for the job market. In both cases students had been attached for more than 16 weeks, hence the students had a genuine case to raise a similar issue concerning duration of IA. In proposing changes to IA duration, students called for an increase to the IA period, to allow for more exposure.

Quality of supervision, quality of mentor and benefits derived from the IA exercise were the constructs used to measure the quality of the IA experience. The finding of the study showed that the students were satisfied with the adequacy of the supervision by the host organization but were not satisfied with the Department's participation in the supervision process. Lecturers did not conduct follow up visits and this created a gap in the supervision process. Lecturer follow up visits are essential as they will be informed about the students' progress, and any challenges they may be encountering. The Department may have failed to actively participate in the IA supervision process due to logistical issues relating to unavailability of funding and transport. Drawing upon the CIPP evaluation model, adequate funding and transport are inputs into the IA process. This, therefore, highlights the importance of setting up a solid supportive infrastructure in terms of funding, transport and material/equipment for the IA process as this ensures the attainment of a quality learning experience. On changes to the supervision process, students suggested regular visits to IA sites.

With regards to quality of mentors, the findings reveal that the students were satisfied with the knowledge and skill level of the mentor whom they further acknowledged as the right individual to supervise them while on IA. Kilminster and Joll (2000) identified several skills and qualities essential in effective supervisors/mentors which included empathy, support, flexibility, instruction, knowledge

and interest in supervision. Knowledge and skill of the mentor is essential as it ensures that students attain high levels of proficiency in a given trade.

The findings reveal that the students were generally in agreement that IA enabled them to value the link between courses learnt at university and the industry, how organizations operate and the role of IA in the school curriculum. These are definitely the expected outcomes from such a process which reflect the product dimension in the CIPP model. However, the technological inadequacy of the B.Ed Technical degree programme was highlighted in the findings as students reported that IA did not acquaint them with technology learnt at the university. This implies that there was a gap between university practice and technology in industry. Such a problem is not peculiar to this B.Ed programme, as Finch and Crunkilton (1999) report that in most cases it is difficult for institutions to get all the highly specialized equipment needed to operate quality programs. The workplace experience is therefore there to meet this need.

The findings of the study revealed that students faced several challenges. The major challenges included financial constraints and securing attachment places. The moderate problems were that there was no added value to experience and that there was poor workplace environment. The least problematic were inadequate orientation, inadequate resources and scanty assessment forms. Some of the challenges that have not been discussed in the preceding sections are discussed below.

One of the emerging challenges was financial constraints in meeting transport and subsistence needs. This meant that students could not settle down well as they had to worry about transportation and food. Such a challenge is usually averted through giving students some form of allowance. Such support is usually offered by government and industry through ZIMDEF.

Nine out of twenty-five students (36%) expressed that there was no added value to their IA experience. The students complained of being assigned repetitive tasks and tasks not matching with what they had undertaken during course of study e.g. design and realization. This could probably be an issue of coordination. The fact that there had been inadequate coordination between the IAC and mentors could imply that there were no agreed task plans for students. As Smith (1994) established, students while on industrial attachments, may be regarded as "just another pair of hands" and may not be given adequate training experience or even the most basic supervisory role, especially in cases where coordination is inept. In a related study by Blunden (2000), mentors cited a lack of structure and guidance from the university as one major difficult aspect in effectively mentoring. This explains how inadequate coordination could have affected the value of students' experiences. It is also possible that the size of organisations to which some students were attached was so small that there lacked diversity in activities hence repetitive tasks. Building and Wood Technology and Design students seem to have missed out on the design component, which forms the core of most degree programmes in the department.

Four out of twenty-five students (16%) also revealed that the some organizations/industries they were attached to did not have adequate and modern equipment. One aim of IA is to integrate college training and work place, so that students may be exposed to techniques in handling equipment and machinery not available in their institutions. Without appropriate skills and experience the IA would be what Wodi and Dokubo (2009) term an unwelcome distraction from the students' studies.

As (Shariff, 2007) states, the working environment should provide a real work setting to allow for proper training during IA. This real work setting tends to come with its own peculiar culture/behaviour that can affect the work environment negatively or positively. Students faced several challenges emanating from the work environment that included, uncooperative staff members, absenteeism of staff, inferiority complex displayed by some supervisors and lack of safety clothing. Lecturer follow up visits to

student placement would appraise them of such work conditions and ways to alleviate some of the negative aspects can be generated.

One student highlighted that the assessment form was scanty. Providing feedback to students about their performance is very essential. If the assessment form was scanty, it may mean that a part of student assessment was not comprehensive. This scenario calls for the Department in collaboration with mentors in industries to design an evaluation/assessment instrument that is valid and reliable to both parties. It also calls for the use of a logbook where all training activities will be carefully recorded on a daily basis and then submitted to the Department for triangulated assessment.

CONCLUSIONS AND RECOMMENDATIONS

From the findings of the study, it can be concluded that students were not satisfied with the placement, coordination and duration of IA. On quality of supervision, students were not satisfied with absence of lecturer visits during IA. They were satisfied with the quality of the mentor and adequacy of the supervision they received. The major challenges encountered during IA included financial constraints and difficulty in securing placement. The organizational deficiencies noted in the IA course included inept placement procedures, inadequate pre-orientation of students to IA, limited communication between coordinator/department and student and organization and inappropriate timing and duration of the IA. Proposed changes to the IA included the use of more assessment tools to give a more comprehensive evaluation of the IA. The study therefore recommends that:

- The Department takes a major role in placement of students for attachment. This can be achieved by compiling a register profiling small and large scale enterprises in different sectors, such as in hospitality, manufacturing and institutional care. The register should constantly be modified and used in securing, quality placement of students.
- A more comprehensive pre-orientation programme should be designed to adequately prepare students for the IA. The pre-orientation may cover, among others; students allowances,

Departmental and organizational expectations, workplace culture, interpersonal skills and communication.

- Coordination of the IA needs to create a more efficient system that allows for constant and adequate tracking of all IA activities. This should include extensive visits by lecturers from the Department and regular interaction between the IA coordinator and the organizations involved.
- Increase attachment period from 8 weeks to 15 weeks or more. This is likely to give students adequate time which is enough for them to reach enhanced technical proficiency levels.
- Assessment of the IA should include a log- book which concentrates on evaluating the student's practical skills. The performance of the student during the attachment period should also be factored in the log-book. This would give the assessment aspect a more holistic dimension that allows for a comprehensive evaluation of the IA.

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