

## Experiential Learning through Industrial Attachment in Academic Libraries: A Case of the University of Zambia Library

(Conference ID: CFP/484/2017)

Kimbo Lemmy Shameenda<sup>1,2</sup>, Inonge Imasiku<sup>1</sup> & Christine Wamunyima Kanyengo<sup>1</sup>

<sup>1</sup>University of Zambia Library, P. O. Box 32379, Lusaka.

<sup>2</sup>Acting Head, Cataloguing & Classification Department, University of Zambia Library, Box 32379, Lusaka.

Email: [kshamenda@unza.zm](mailto:kshamenda@unza.zm)

### **ABSTRACT**

*The main objective of this study was to investigate students' experiential learning using industrial attachment in academic libraries. This study was a case study with a total of 85 students pursuing a degree and diploma in library and information science from the University of Zambia and Evelyn Hone College of Arts and Commerce, respectively. The break down was as follows: 79 University of Zambia students and six (6) students from Evelyn Hone College. These students who were on Industrial Attachment at the University of Zambia Library from 3<sup>rd</sup> to 28<sup>th</sup> October, 2016 (Evelyn Hone Students) and from 3<sup>rd</sup> October, 2016 to 25<sup>th</sup> November, 2016 (University Students) formed the sample for the study; during which time the study was carried out. Purposive sampling was used in selecting the sample of students. Experiential theory guided this study. Data was collected using a semi-structured questionnaire. Validity and reliability was achieved by pre-testing the instrument before using them. Data collected was analysed using both qualitative and quantitative techniques. The major findings were: students gained general library skills. Challenges faced before and during attachment were: difficult involved in getting a library for attachment and the financial strain attached to library attachment as there was no monetary compensation during attachment. The study concluded that there should be a closer working relationship between the educational institutions and the library to ensure library industrial attachment is a meaningful learning experience for the benefit of all those involved; both the student and the institution. The study recommends that industrial attachment be planned and implemented in such a way that it becomes a genuine learning experience right from the beginning in order for effective knowledge sharing to take place.*

**Key words:** *Experiential learning, Industrial attachment, Academic libraries, Library practicum, Library attachment, Library profession*

## **Introduction and Background**

The Department of Library and Information Studies, now renamed the Department of Library and Information Science, is one of the oldest departments in the School of Education, University of Zambia. It was established in 1967, one year after the inauguration of the University of Zambia in 1966 (Shukla, 1975). The Department began as part of a United Nations Educational, Scientific and Cultural Organisation (UNESCO) project to help the independent country of Zambia to train Librarians, Archivists, Records Managers, Information Workers and documentalists. Under this project, Library and Information Studies (LIS) was taken as a minor by students pursuing Bachelor of Arts at the University of Zambia. The Department produced its first three graduates in 1970 (Shukla, 1975). The obvious weakness in the professional content of the programme resulted in stopping Library and Information Studies to be taught as a minor course but as a degree programme on its own. As a result, the Bachelor of Arts with Library and Information Studies (B.A.LIS) was born. As at 2017, the Department has over 700 students pursuing Library and Information Studies at both graduate and under-graduate levels. As part of the requirements for the award of the degree, B.A.LIS students are expected to take part in industrial attachment programmes in the second and third levels of the programme.

The Evelyn Hone College of Applied Arts and Commerce which is under the Ministry of Science and Vocational Training, trains semi-professional library workers (Chifwepa, 1994). Initially, the LIS programmes relied on expatriate librarians whose expiry of their contracts affected the running of the programmes (Chifwepa, 1994). Furthermore, these librarians often worked full time and taught part time and were too busy to develop the programme. In addition, there was no reliable professional board of Library Studies. However, the Evelyn Hone programmes have since been formalized and staffed by Zambians and continue to provide semi-professional training in certificate and diploma programmes.

Leong (2004) defines industrial attachment as “on-the-job training where a student learns by actually doing the job using actual tools in a normal working environment”. He adds that “it is 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.” As such, it can be said to be a process that moulds a student’s knowledge. Karisiddappa (2004) argues that if “the process is done in appropriate atmosphere knowledge and skills are improved leading to understanding and positive attitudes. As a result, students would be better equipped to use tools and machines”. It is against this background that the industrial attachment training is an essential component of the curriculum of the Department of Library and Information Science (LIS) at the University of Zambia. For the degree students at the University of Zambia, attachment usually takes place in the fourth term of the third year of their study. As for Evelyn Hone College students, the industrial attachment takes place towards the end of the one year Certificate programme and at second level for Diploma programmes. The attachment period is usually a maximum of eight weeks for UNZA students and four weeks for Evelyn Hone College students. During this attachment, they are exposed to the real world of work and its challenges which should prepare them towards their future careers. It is a supervised programme since lecturers from the faculty visit the students during this period and at the end of the programme so that they can ascertain the success of the programmes.

## **Statement of the Problem**

It is compulsory for every undergraduate student in Library and Information Science to undergo Industrial attachment for a specified period of time under the course code of LIS 3003 (Library practicum). The attachment serves as exposure to the real work environment so that the student can relate theories learned in class and apply them in the workplace to prepare them for their future career as a professional librarian (Gumbe et al., 2012). LIS students pursuing a degree programme are expected to proceed to industrial attachment in their third year after passing all first year and second year courses for a minimum period of eight (8) weeks, while those pursuing a certificate and a diploma programme from the College are attached for four (4) weeks. The attachment should provide workplace experience that requires the student to practically do the task and be able to apply their knowledge in the library setting. Despite the industrial attachment, it has been generally observed that low competence in creative innovations among the graduates has been a great source of concern to various stakeholders because graduates’ industrial output

was not commensurate with the investments. The low competence in creative innovations could be attributed to industrial challenges because little attention was given to the students' development and training. Thus, graduates were found to lack industrial experience. The purpose of this study was therefore to investigate how industrial attachment provided a meaningful learning experience to the students involved. The words industrial attachment, library practical/practicum or library attachment means the same in this paper.

## **Objectives of the Study**

- 1) To determine the extent to which theory and practice in the library science curriculum relate.
- 2) To investigate the problems experienced by students before and during their industrial attachment.
- 3) To find out whether library industrial attachment provides a meaningful learning experience to the students involved.

## **Research Questions**

- 1) How does theory and practice in the library science curriculum relate?
- 2) What are the problems experienced by students before and during their industrial attachment?
- 3) Does library industrial attachment provide a meaningful learning experience to the students involved?

## **Significance of the Study**

The findings of this study are expected to be of great use to technical education planners, school of library and information science; and policy makers by giving them a meaningful picture of the learning experience of library industrial attachment. The findings of this study would also assist educational planners in developing new and innovative approaches to library industrial attachment involving all the stakeholders but also a programme that is ever evolving and responding to the needs to the employment market. This calls for a strong working relationship between library trainee students, the library and the institutions offering library and information science programmes. Apart from adding to the world of knowledge on industrial attachment, this

study should also act as a provocation and a springboard from which other researchers can carry out further research in the field of industrial attachment.

## **Experiential learning theory**

The experiential learning conceptual framework puts the study in this paper into perspective. It defines the variables measured with regard to library linkage in using industrial attachment as a means of human capital development (Adjei, Nyarko and Nunfam, 2014; Bozark, 1981). The framework looks at the contributory role of both theoretical and practical learning in the overall human capital development of the student through library and information science education. It shows the trajectory to human capital development through industrial attachment. Thus, industrial work experience, following a prior theoretical learning in the classroom, reinforces classroom learning and produces skilled and knowledgeable students with productive and employable skills required for the world of work as indicated by the human capital theory (Jarvis, 1987; 1995). Kolb (1984:38) says “learning is the process whereby knowledge is created through the transformation of experience”. In this sense according to McLeod (2013) a person learns by going through four stages as shown in Figure 1.

## **Literature Review**

Industrial attachment gives students the opportunity to be directly involved and be part of the actual work situation outside the classroom (Munyoro, Nyandoro and Musekiwa, 2016). They defined it as a “process that moulds a student’s knowledge, in particular, the student’s ability and understanding of information that every student requires to perform efficiently and effectively.” For example, library and information science students are able to handle library materials and equipment physically for processing. Books will be accessioned, stamped, catalogued, and classified and so on. LIS students will also be involved in other library activities like circulation which involves charging and discharging, shelving and shelf reading etc. Industrial attachment was specifically designed to provide students of tertiary institutions in specific courses, with the opportunity of acquiring practical skills and experiences on-the-job before graduation so that

they can graduate as professionals (Munyoro, Nyandoro and Musekiwa, 2016; Ojokuku, Emeahara, Aboyade, and Chris-Israel, 2015; Ugwuanyi, Chijioke and Ezema, 2010). Gumbe et al. (2012) and Munyoro, Nyandoro and Musekiwa (2016) conclude that industrial attachment is process, supervised by experts, of transferring skills, knowledge, attitudes and information to students as a way of enhancing their efficiency and effectiveness in their area of specialisation.

## **The Educational Purpose of Industrial Attachment**

The placement of students in various organisations as trainees is an academic requirement to foster their work experience so the students will attain the necessary skills to supplement their theoretical training (Gumbe et al. (2012). In most instances industrial attachment may be a feature that distinguishes courses in a formal class by giving them a distinctive niche in the market. Attachment also provides a valuable contact with industry for the academic (Munyoro, Nyandoro and Musekiwa, 2016). Through industrial attachment, both students and the lecturers are able to make the linkage between the theory that they learned in library school and the work environment they have been attached to.

## **The Theory – Practice Link**

The attachment enables students to apply classroom theory within the actual world of work thus bridging the gap between theory and practice. In support, Ojokuku, Emeahara, Aboyade and Chris-Israel (2015) say that industrial attachment “is that process where knowledge and information are acquired facilitating understanding by the recipients”. The recipient of education acquires knowledge and capabilities in his/her specific area of specialization and gives the recipient the competencies required to do a job or carry out functions. It becomes the process where knowledge, skills, abilities and attitudes required in doing a specific job or carrying out a specific function are transferred from one person to another or to a group of persons (Mafe,2010; Bamidele, Omeluzor, Imam, and Amadi, 2013). Mafe (2010) points out that “for an individual to effectively function in the world of work theoretical knowledge is not enough because such an individual needs to be versatile in the application of skill to perform specific jobs.”

For example, while it is possible for someone to learn and imbibe all the available information on the processes involved in cataloguing and classifying a book in the classroom, it is unlikely that the individual would, based on this knowledge or information alone, be able to process a book at the first opportunity. On the other hand, someone else without the theoretical information on how to catalogue and classify a book, on being told and shown what to do, followed by hands-on practice and supervision by an instructor, would at the end of the day be able to catalogue and classify a book successfully. Without any doubt of course as Munyoro, Nyandoro and Musekiwa, (2016) have stated, “someone who has been exposed to both the theoretical and practical methods and the hands-on experience would and should be better in the real work.” They add that the Industrial Attachment programme “provides a bridge between theory and practice and enhances chances of gainful employment as institutions are able to produce career-focused graduates with relevant skills for industry.”

## **Benefits of Industrial Attachment to Students**

Industrial attachment is beneficial to the students involved. Mafe (2010) argues that the “major benefits accruing to students who participate conscientiously in industrial attachment are the skills and competencies they acquire leading to their professional development”. These relevant production skills remain a part of the recipients of industrial attachment as life-long assets which cannot be taken away from them. This is because the knowledge and skills acquired through attachment are internalized and become relevant when required to perform jobs or functions (Karisiddappa, 2004). The other benefits to LIS students who participate in industrial attachment as identified by Gumbe et al (2012) include the “opportunity to blend theoretical knowledge acquired in the classroom with practical hands-on application of knowledge required to perform technical works in the real work environment. It also includes exposure of students to the environment in which they will eventually work (for example, libraries and information centres), thereby enabling them to see how their future professions are organized in practice.”

## **Benefits of Industrial Attachment to Educational Institutions**

According to Munyoro, Nyandoro and Musekiwa (2016), “students’ involvement imparts substantial advantages to educational institutions and their faculty members”. They explained that “the increased contact and cooperation between educators and the libraries could enrich the input in course development and assist educators to keep abreast of library trends and future developments.” Developing such relationships may provide channels for testing the compatibility and relevance of academic theory with the operational requirements of library. Gumbe et al (2012) state that “students saw attachment as helping them improve their communication skills and better understanding of the operations of the respective organization”. There is an implied notion in industrial attachment that experience cannot be substituted and that the benefits of attachment programmes vary among students, employers and the training institutions. For the employers, the programme bridged the gap between theory and practice while academics viewed attachment as helping clarify career objectives as well as enhancing job opportunities for the students (Mafe, 2010). Finally, successful industrial attachment programmes may generate invaluable publicity by reiterating with tangible evidence an institution's commitment and contribution towards the local economy.

## **The Place of Industrial Attachment in Librarianship**

Industrial Attachment plays a significant role in librarianship because it contributes to professional development. It provides a transition from the classroom to the world of work. Without this component, graduate students will be of substandard and half-baked. In support, (Gumbe et al, 2012) argue that industrial Attachment “is a process that moulds a student’s knowledge, in particular, the student’s ability and understanding of information that every student requires to perform efficiently and effectively.” In this light, the students of Library and Information Science (LIS) need to undergo proper training to back up their classroom experience so as to be effective and relevant in their profession and be well developed professionally. For example, industrial attachment should help training LIS students how to interpret subject heading lists, the classification schemes, the computers and other digital equipments to be able to use

them effectively. It provides avenue for the students to acquire skills and experience in librarianship.

While on industrial attachment, LIS students should be able to appreciate work methods and gain experience in handling equipment and machinery which may not be available in their learning institutions. The application of ICT in libraries has broadened the scope of librarianship by introducing new roles on both libraries and librarians. LIS programmes such as industrial attachment are skill-oriented platforms for LIS students to acquire work experience training (Karisiddappa, 2004).

## **Challenges of Industrial Attachment on professional development of LIS students**

Gumbe, Svatwa and Mupambireyi (2012) identified the following as challenges that are associated with attachment “competition for attachment places from other institutions; rough and tough work environment for students; male dominated working environment for female trainees and high expectations by firms accepting students for attachment.” However, Adjei et al (2014) concur with the former authors but add that some of the challenges faced by the library include “time factor where most times the training schedule of the library school and the library are not synchronized.” In other words, there is no proper coordination between the library schools and the host libraries. For example, at the University of Zambia, LIS students’ library practicum is usually carried out during a long vacation. The implication is that the trainee students posted to do circulations and reference desk duties during the vacation, receive enquiries or loans which are not reflective of the host organization work load. This can mean that any form of industrial attachment during this time is given little quality time and attention deeming the training process ineffective. The other issue concerns the applications of Information Communications Technology (ICT) in libraries where students go for attachment. Karisiddappa (2004) emphasized that “young librarians should learn to be managers and organizers of digital content and this requires new skills and roles.”

LIS students were exposed to carrying out many functions and processes, some of which might not have been included in their normal course programme schedule (refer to Table 1). The students were also directly involved in the Library's core processes in collection development, cataloguing and classification, special collections, serials and public services. Indirectly, the students implemented what they had studied in the classroom and also developed interpersonal and team skills. As a result, it increased the students' knowledge, competency, comprehension and skills as well as gaining working' experience in the field of library and information science.

Finally, the supervisors were given the library practical training evaluation report form which adhered strictly to the form given by the faculty. The assessment by Library Department assesses the student experiential learning as "Bad", "Fair", "Good", "Excellent"; this is what the supervisor of the student during library assessment is supposed to grade the student (see Table 1). The assessment was based on: knowledge and understanding of the areas trained; ability to analyse and interpret; willingness to receive advice; sincerity and dedication to duty; reactive to give opinion and ask questions; and future potential. Pineda (2010) suggests several strategies for an effective training programme which include among others; comparing evaluation results with a well-defined, observable and measurable objective, evaluation plan which is feasible and realistic, designing a simple evaluation plan agreed upon by both the faculty and host institution, and also the choice not to evaluate everything.

## **Methodology**

The study adopted a case study design to investigate experiential learning through industrial attachment. A case study design enables the study of contemporary phenomena within its real-life context and in-depth investigation of phenomena (Yin, 2013). The study was carried out at the University of Zambia Main Library where the students were attached from 3<sup>rd</sup> October 2016 to 25<sup>th</sup> November 2016. The Library is located at the University of Zambia Main Great East Road Campus which is situated about seven (7) kilometers East of Lusaka City Centre. The Library supports the core business of the University (teaching, learning and research). Therefore,

it has an obligation to train the university students on industrial attachment as a mandatory requirement for the award of degree or diploma in librarianship. The target population of the study was composed of two categories namely: students pursuing a degree and diploma in librarianship from the University of Zambia and Evelyn Hone College of Applied Arts and Commerce. A purposive sample of eighty-five (85) participants comprising seventy-nine (79) degree student from the University of Zambia and six (6) diploma students from the Evelyn Hone College of Applied Arts and Commerce was used for this study. The researchers believed that the participants were best placed to provide insights on experiential learning through student industrial attachment programme at the University of Zambia Library. A Questionnaire was used in collecting survey information. The questionnaire was pilot-tested to check its relevance and validity of the items. All the questions were found to be clear to all the participants. To ensure anonymity, participants were instructed not to write their names on the questionnaire. In addition, all participants were assured that their responses will be kept confidential and used only for this study. Descriptive statistics were used to analyse the data. The data is presented in frequencies and percentages. While thematic analysis was used to analyse open-ended questions.

## **Results**

### **Demographic characteristics of the respondents**

The demographic factors included gender, age, marital status and highest academic qualification. Out of the total of 85 students in this study, 45 (53%) were female, while 40 (47%) were male. In terms of the age of the students, 53 (62%) were aged between 23-28 years, 24 (28%) were aged between 17-22 years of age, 5 (6%) students were aged between 29-34 years and the remaining 3 (4 %) were aged between 35-40years. The majority though, accounting for Sixty-six (78%) were in 3<sup>rd</sup> year, while 11 (13%) were in 4<sup>th</sup> year, with 4 (5%) in 1<sup>st</sup> year, 2 (2%) were in 2<sup>nd</sup> year of their study and 2 (2%) of the students did not indicate their year of study.

## **Extent to which theory and practice in the library science curriculum relate**

One of the questions the study sought to answer was “how relevant to the library are the skills acquired by the students prior to the industrial attachment?” In this light, the students were asked to cite their weakest areas prior to industrial attachment at the university library. Their responses were as shown in Table 2. Lack of computer application skills in library services was cited by 26 (31%) students, 20 (24%) cited negative attitude towards training in some library sections, 14 (16%) cited desire to specialize only in what they learn in class, 11 (13%) cited lack of library product awareness, 7 (8%) cited lack of practical knowledge on librarianship, 5 (6%) cited lack of confidence and 2 (2%) cited lack of interaction with professional library staff.

This was a multi-response where the students were allowed to select more than one response. This explains why the responses were more than 100%. Table 3 shows students’ responses on skills acquired during the industrial attachment as follows: 43 (51%) were on general library knowledge, 35 (41%) were on communication skills, 22 (26%) were on computer skills, 17 (20%) were on technical skills, Social/interpersonal skills received 13 (15%) responses, supervisory skills received 12 (14%) responses and the least 8 (9%) were on self-discipline/integrity. Figure 2 shows the results on rating the usefulness of skills taught at the learning institution. Students, adding up to 60 (71%) rated the skills as very useful, 22 (26%) rated the skills as useful, while only 3 (3%) rated the skills as not useful.

## **Problems/challenges experienced by students before and during industrial attachment.**

When asked how they got their industrial attachment place, 59 (69%) of the students were sent to place of attachment by their industrial attachment coordinators, 15 (18%) had got the place of attachment through their own initiative, while 11 (13%) got the place of attachment through other ways such as through friends and relatives. Table 4 shows the challenges that students faced as they sought for attachment place. 51 (60%) were faced with a challenge of getting a library for attachment, 20 (24%) faced the challenge of a library not willing to accept them for

attachment, while 7 (8%) of them faced challenges of wanting to choose places of attachment and another 7 (8%) faced a challenge of choosing places not related to their profession, respectively.

During this industrial attachment, 79 (93%) University of Zambia students were attached to the Library for eight weeks, while six (7%) students from Evelyn Hone College were attached for four weeks. In terms of visitation by their lecturers during the industrial attachment, 57 (67%) were visited only once, only 21 (25%) were visited twice, while 7 (8%) of the students were never visited during their industrial attachment. Students were also expected to compile reports during the industrial attachment. Research findings reveal that 62 out of 85 students had difficulties in compiling their reports for the following reasons: 24 (39%) had no time due to long working hours, 20 (32%) were not able because they did not train in all sections, 9 (15%) said it was very expensive to compile the report, 8 (13%) had no computer to type the report and 1 (2%) was not shown how to do it. The remaining 23 (27%) students had no difficulties in compiling their reports.

Other problems encountered by students during the industrial attachment were: 36 (42%) cited inadequate funding, 15 (18%) cited long distance from place of residence to the library, 9 (11%) mentioned high rent rates and no accommodation, 6 (7%) cited poor coordination from the Department of Library and Information Science and 2 (2%) mentioned harsh climatic conditions in the library. There was no response on the attachment being not relevant to the course taken, while 17 (20%) students did not respond. Probing further, the students summarized the nature of work they were given to do during the industrial attachment in the following responses: 42 (49%) found the work interesting, 28 (33%) found the work as demanding, while 14 (16%) said the work was routine. One student did not respond.

## Library industrial attachment as a meaningful learning experience to the students

Figure 3 shows that 49 (58%) students expected to develop professional attitudes, 12 (14%) expected to improved skills in practical work and gaining general work experience respectively, 10 (12%) expected to better understand theory, while the least was to integrate new information into curriculum cited by two (2%) of the students.

Probing further, the students were asked to indicate whether they were satisfied about the industrial attachment offered by the University of Zambia Library, 75 (88%) indicated 'Yes', while 10 (12%) indicated 'No'. This suggested that the students were satisfied about the industrial attachment. However, in order to establish a stronger analysis, the study sought to find out the relationship between gender of the students and their satisfaction about industrial attachment. This was done by firstly cross-tabulating the two variables and secondly by conducting a chi-square test. The result from the cross-tabulation indicated that out of the 85 students, 34 (40%) male students were satisfied, while 6 (7%) were not. On the other hand, 41 (48%) female students were satisfied about the industrial attachment and 4 (5%) were not. The results are presented in Table 5. Secondly, a chi-square test was conducted in order to establish if there was a relationship between gender of the students and their satisfaction about the industrial attachment (see table 6). The two formulated hypotheses were:

$H_0$  = There is no relationship between gender of the students and their satisfaction about the  
Industrial Attachment

$H_1$  = There is relationship between gender of the students and their satisfaction about the  
Industrial Attachment

The plan of analysis was that the significance level of 0.05 be used in order to maximize the accuracy of the findings. With this analysis if the test statistic probability (p-value) was less than the significance level, the null hypothesis would be rejected. On the other hand, if the p-value was greater than 0.05, then the null hypothesis would be accepted. The results of the analysis are presented in table 6.

$X^2 = 0.762$ ;  $df = 1$ ;  $p\text{-value} = 0.383$ . Since the  $p$ -value is greater than the significance level, the null hypothesis is accepted. The interpretation of the result is that there is no relationship between gender of the students and their satisfaction of industrial attachment.

In this study, there was also need to find out the extent to which students achieved objectives of the industrial attachment. Students were allowed to select more than one response. This explains why the responses were more than 100%. Table 7 gives responses on the extent to which students felt they had achieved the given objectives by the end of the attachment. From the responses, 60 (71%) gained general work experience both to a large and to a very large extent, 18 (22%) gained general work experience only to a limited and to very limited extent, 57 (67%) gained a better understanding of theory to a large and very large extent, while 23 (27%) stated they only gained both to a limited and to a very limited extent. On the other hand, 63 (74%) acquired confidence for future work both to a large and to a very large extent. Acquisition of confidence for future work was an objective met by 63 (74%) of the students, while those who indicated that this objective was met to a limited or very limited extent were only 13 ((15%). Those that created networks with potential employers to a very large extent were 42 (49%), while 30 (35%) created networks with potential employers both to a limited and to a very limited extent. Almost all the students, 64 (75%) improved their skills during the industrial attachment both to a large and to a very large extent and 18 (21%) of the students indicated that skills had only improved by a limited to a very limited extent. On the other hand, 53 (62 %) of the students became familiar with new technologies in the library to a large and very large extent with 32 (38%) becoming familiar with new technologies in the library to a limited and to a very limited extent. Students who said they helped integrate the new developments into the curriculum both to a large and to a very large extent were only 37 (43%) while the rest, 41 (48%) only helped this integration to a limited and to a very limited extent.

Table 8 shows specific areas in which knowledge was mostly gained. Findings of this study indicate that 28 (33%) of the students gained knowledge mostly in the area of cataloguing, 15 (18%) in the area of circulation of documents, 12 (14%) in the area of acquisition, 11 (13%) in

the area of classification, 10 (12%) in the area of computer appreciation, 7 (8%) in the area of digitising of documents. In summing up their industrial attachment experiences; 29 (34%) of the students described it as a meaningful learning experience, 20 (24%) described it as excellent, 19 (22%) said it was not what they expected, 15 (18%) described it as a mere course requirement and 2 (2%) said it was a frustration that could be removed from the course.

Despite describing the industrial attachment as a meaningful learning experience, the students would like to see certain aspects of industrial attachment changed. This was a multi-response where the students were allowed to select more than one response. This explains why the responses were more than 100%. Responses in Table 9 reveal that 55 (65%) would like to see the educational institutions look for good attachment places early enough for the students, 23(27%) would like to see an allowance given to student trainees to motivate them, 18 (21%) would like to see lecturers follow up students on attachment to discuss their problems, to assess and give them feedback and 11 (13%) would like the attachment to be held during peak times (a time of the year when a lot of users are using the library).

## Discussion

The research findings of this research suggest that both genders were well represented. In terms of age, the majority of the students were young and could have been involved in the industrial attachment for the first time in order to acquire knowledge and skills for future work in librarianship. This is in agreement with Karisiddappa (2004) who emphasized that “young librarians should learn to be managers and organizers of digital content and this requires new skills and roles.” It could further be inferred that the older students (aged between 35 and 40) were most likely involved in industrial attachment mainly as a mandatory requirement of the Library and Information Science programme; this also applies to the other students as it is mandatory to have library practicum as part of the training unless one was exempted by the training institution. It should be noted that all the 3<sup>rd</sup> year students in this library training attachment were from the University of Zambia pursuing a degree programme and were doing

their attachment for the first time. The 4<sup>th</sup> year students from the University of Zambia were those repeating the library practicum, while those in the 1<sup>st</sup> and 2<sup>nd</sup> years of study were from the Evelyn Hone College of Applied Arts and Commerce, doing their first and second diploma levels of studies in library and information science. This was worth noting as it depicted the kind of institution the students (pursuing a diploma or a degree) were sent to in order gain professional experience.

During the industrial attachment at UNZA Library, the students were directly involved in the Library's core processes in collection development, cataloguing and classification, special collections, serials and public services. Indirectly, the students implemented what they had studied in the classroom and also developed interpersonal and team skills. In this light, the industrial attachment can be said to have increased the students' knowledge; competency; comprehension and skills. Additionally, working' experience was gained in the field of library and information science. This concurs with Karisiddappa (2004) who argues that the some of the major benefits of an industrial attachment programme such as a library practicum are the skills and competencies students acquire during the practicum period. These are skills and competencies that relate to the library profession. During a practicum, students are expected to "marry" their theoretical to the practical environment.

The students acquired general library knowledge, communication skills, computer skills, interpersonal skills, and supervisory skills during the industrial attachment. These findings continue to concur with Karisiddappa's (2004) emphasis that there is need for society to educate and train library employees for a lasting professional competence acquisition. The implication of this therefore is that the learning institutions need to revise upwards the strength of the practical skills and "softness" of the people management skills taught to the students. In addition, the learning institutions need to incorporate computer skills in their curriculum so as to address the changing needs of the industry. In this study, almost all the students rated the usefulness of the skills they were taught at the institution in performing the duties they were given during industrial attachment as very useful and useful. Their responses were as shown in Figure 2. This

implies that the skills taught at the educational institutions were relevant and useful to the library for the majority of the students.

Students experience many problems during their industrial attachment which start right from getting the attachment place, continuing throughout the attachment period and even up to compiling the after-attachment report. In Zambia, industrial attachment programmes are coordinated and supervised by respective departments within various schools. In this study, it was discovered that majority of the students were sent by the course coordinator to UNZA Library for industrial attachment. This was followed by those students who used their own initiatives and friends and relatives to find a place of attachment. On issues of challenges before attachment, the study findings of this study reveal that Library and Information Science students at the University of Zambia have problems in the following areas: getting a library for attachment and library not willing to accept students for attachment. The study findings agree with Munyoro, Nyandoro and Musekiwa, (2016)) who have also pointed out that students struggled to secure attachment places. This may have resulted from a poor working relationship between the libraries and the educational institutions. By establishing a close working relationship between the educational institutions and the library, it would be possible to place all the students without the students having to go through all the challenges they cited in this study.

The duration of the industrial attachment in Library and Information Science schools in Zambia depends on the length of the course and ranges between four and eight weeks. This particular industrial attachment ranged between four and eight weeks. However, four and eight weeks of industrial attachment for a course of between one and three years (Certificate and Diploma) and four years (University Degree) is obviously too short for the student to learn anything meaningful. Since the library industrial attachment is a supervised programme, lecturers are expected to visit the students during attachment. The research findings indicate that the students during this attachment were visited only once and some students were never visited. This finding is in line with Munyoro, Nyandoro and Musekiwa, (2016)'s findings that if lecturers do not visit students during their industrial attachment, the mentorship link is severed and the student misses

the guidance of the educational institution necessary to make the industrial attachment meaningful. With proper structuring of the attachment programme, students could be placed in all the expected sections of the library and given ample time to reflect on their experiences to compile a good report.

During the industrial attachment, students faced the following challenges: financial constraints, long distances from place of residence to the library, high rent rates and lack of accommodation and poor coordination from the Department of Library and Information Science. These findings collaborate with Munyoro, Nyandoro and Musekiwa (2016) that finances were key in contributing to the overall quality of the library industrial attachment.

Despite all the challenges faced, the majority of the students found the work they were engaged in to be interesting, though demanding and this contributed positively to their overall attachment experience. Focusing on the extent to which students achieved the objectives of the industrial attachment, the achievements have been reported in the following areas: students gained general work experience, gained a better understanding of theory, acquired confidence for future work and improved their skills to a very large extent during the industrial attachment. On the other hand, students were able to create networks with potential employer and became familiar with new technologies in the library to a large extent. However, it was found that industrial attachment helped to integrate the new developments into the curriculum to a limited extent. All in all, this particular library industrial attachment became a meaningful learning experience to students who were attached to the Library because their weakest areas before the attachment and their expectations after the attachment were met by developing professional attitudes and by improving skills in practical works in librarianship. These findings are supported by Gumbe et al (2012) that industrial attachment “is a process that moulds a student’s knowledge, in particular, the student’s ability and understanding of information that every student requires to perform efficiently and effectively.”

However, students who were on industrial attachment to UNZA Library would like to see change concerning the industrial attachment in the following areas: educational institutions offering library science should look for good attachment places early enough for students, allowances should be given to students during the attachment to motivate them and lecturers should follow up students on attachment to discuss their problems, to assess and give them feedback. This may explain why students may not see industrial attachment as a genuine learning experience right from the start. For the attachment to be said to be meaningful, the students should be able to achieve the laid down objectives by the end of the industrial attachment.

In summary, the findings of this study show that the majority of the students gained practical knowledge in the core areas of their field of study. As has been discussed earlier, one of the problems students faced during attachment was financial strain, hence their suggestion for an allowance for students on attachment. Munyoro, Nyandoro and Museikwa (2016) had similar findings in that guardians of some students indicated that they may not have adequate financial resources to support a student on attachment away from home. Hence availability of allowances being an important choice in their selection of attachment places. These suggestions show that a lot needs to be done on library industrial attachment; ranging from where the student is attached (i.e. the attachment place), how to find an attachment institution, the nature of work done during the attachment to problems experienced by the students outside the attachment place. To address these concerns, it is important to cultivate a closer working relationship between the learning institutions and the libraries where industrial attachment takes place.

## **Conclusion and Recommendations**

The objective of industrial attachment held at the University of Zambia from 3<sup>rd</sup> October, 2016 to 28<sup>th</sup> October, 2016 (Evelyn Hone College students) and 3<sup>rd</sup> October, 2016 to 25<sup>th</sup> November, 2016 (University of Zambia students), respectively was achieved through acquisition of knowledge, competency, comprehension and skills by students. In addition, the students get to a feel of the ‘working’ experience in the field of library and information science. The students

were also exposed to the real-life scenario in areas such as cataloguing, classification, circulations, collection development, serials, and special collections. Learning all these within two months could have been a challenge for some students. To provide a meaningful learning experience beneficial to all the stakeholders involved in the Library Industrial Attachment, it is recommended that: firstly, the educational institutions increase contact and cooperation with the libraries so that the libraries can input in course development and assist educators to keep abreast with library trends and future developments. Through this cooperation, it could be possible for the educational institutions to get attachment places for the students. Secondly, the LIS Departments at Evelyn Hone College of Applied Arts and Commerce and the University of Zambia should work with the University Library at the University of Zambia to reposition its student attachment component in line with its mission to provide relevant higher education through teaching, research and community service by producing graduates fit for purpose and well-equipped to solve challenges faced by prospective employers and society at large.

## **Acknowledgement**

The authors wish to thank the Library and Information Science students from the University of Zambia, School of Education, Department of Library and Information Science and Evelyn Hone College of Applied Arts and Commerce in the Department of Library and Information Science who were on Industrial Attachment from 3<sup>rd</sup> October, 2016 to 28<sup>th</sup> October, 2016 (Evelyn Hone College students) and 3<sup>rd</sup> October, 2016 to 25<sup>th</sup> November, 2016 (University of Zambia students) and library staff at the University of Zambia Library for their kindness and cooperation during the data collection process of this research.

## REFERENCES

- [1] Adjei, N. A. K., Nyarko, D. A. and Nunfam, V. F. (2014). Industrial Attachment in Polytechnic Education: An Approach to Polytechnic-Industry Nexus in Human Capital Development of Selected Polytechnics in Ghana. *Journal of Education and Practice*. 5(33): 33-49.  
[https://www.researchgate.net/publication/281870090\\_Industrial\\_Attachment\\_in\\_Polytechnic\\_Education](https://www.researchgate.net/publication/281870090_Industrial_Attachment_in_Polytechnic_Education) Accessed: 10/03/2017.
- [2] Bamidele, I. A., Omeluzor, S. U., Imam, A. and Amadi Hannah U. (2013). Training of Library Assistants in Academic Library. *SAGE Open*. Vol 3, Issue 3  
<http://journals.sagepub.com/doi/full/10.1177/2158244013503964>. Accessed: 10/03/2017.
- [3] Bozark, L. (1981). *Field study: A source book for experiential learning*. Sage Publications.
- [4] Chifwepa, V. (1994). LIS training and education in Zambia. *Innovation*. 9: 31-34.
- [5] Donkor, F., Nsoh, S, N. and Mitchual, S. J. (2009). Assessment of supervised industrial attachment of a technical and vocational teacher education program in Ghana. *Asia- Pacific Journal of Cooperative Education*, 10(1), 10-17.  
[http://www.apjce.org/files/APJCE\\_10\\_1\\_1\\_17.pdf](http://www.apjce.org/files/APJCE_10_1_1_17.pdf) Accessed: 10/03/2017.
- [6] Gumbe, S. M., Sivotwa, T. D. and Mupambireyi, F. P. (2012). Students' Perspectives of the Industrial Attachment Programme: A study of University of Zimbabwe, Faculty of Commerce (2010-2011). *International Journal of Physical & Social Sciences*, 2(9), 12-36.  
[https://www.ijmra.us/project%20doc/IJPSS\\_SEPTEMBER2012/IJMRA-PSS1537.pdf](https://www.ijmra.us/project%20doc/IJPSS_SEPTEMBER2012/IJMRA-PSS1537.pdf). Accessed: 10/03/2017.
- [7] Jarvis, P. (1995). *Adult and continuing education: Theory and practice* (2nd ed.). London: Routledge.
- [8] Karisiddappa, C.R. (2004). Library and information science curriculum for the developing countries. *World Library and Information Congress: 70th IFLIA General Conference and Council 22-27 August 2004 Buenos Aires*. <http://www.ifla.org/iv/ifla70/prog04.htm> Accessed 10/03/2017.
- [9] Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development* (Vol. 1). Englewood Cliffs, NJ: Prentice-Hall.
- [10] Leong, S. (2004). *How to Develop Talent for Training*. New York: Management Books.

- [11] Mafe, O. A. T. (2010). Effectiveness of SIWES with respect to chemical engineering .Invited Paper presented at the Workshop on “Achieving the Necessary Professional Standards in Chemical Engineering in our Universities” organized by the Nigerian Society of Chemical Engineers, Afe Babalola Hall, University of Lagos, 29<sup>th</sup> September, 2010. [http://www.nsche.org.ng/cms/publications/cms/uploads/lecture\\_nsche\\_engr\\_mafe.pdf](http://www.nsche.org.ng/cms/publications/cms/uploads/lecture_nsche_engr_mafe.pdf) Accessed\_10/03/2017.
- [12] McLeod, S. A. (2013). Kolb - Learning Styles. Retrieved from [www.simplypsychology.org/learning-kolb.html](http://www.simplypsychology.org/learning-kolb.html) Accessed 10/03/2017.
- [13] Munyoro, G. Nyandoro, Z. F. and Musekiwa, M. (2016). An Evaluation of the Student Industrial Attachment Programme in Zimbabwe: A Case Study of Chinhoyi University of Technology. [https://archive.org/stream/1.ManAnEvaluationOfTheStudentIndustrialAttachmentProgrammeInZimbabwe.ACaseStudyO/1.ManAn%20evaluation%20of%20the%20student%20industrial%20attachment%20programme%20in%20Zimbabwe.%20A%20case%20study%20of%20Chinhoyi%20University%20of%20Technology\\_djvu.txt](https://archive.org/stream/1.ManAnEvaluationOfTheStudentIndustrialAttachmentProgrammeInZimbabwe.ACaseStudyO/1.ManAn%20evaluation%20of%20the%20student%20industrial%20attachment%20programme%20in%20Zimbabwe.%20A%20case%20study%20of%20Chinhoyi%20University%20of%20Technology_djvu.txt) Accessed 10/03/2017.
- [14] Ojokuku, B. Y., Emeahara, E. N., Aboyade, M. A. and Chris-Israel, H. O. (2015). Influence of students' industrial work experience scheme on professional development of library and information science students in south-west, Nigeria. *Library Philosophy and Practice (e-journal)*. Paper 1330. <http://digitalcommons.unl.edu/libphilprac/1330> Accessed 10/03/2017.
- [15] Pineda, P. (2010). Evaluation of training in organisations: a proposal for an integrated model. *Journal of European Industrial Training*, 34(7), 673-693. <http://www.emeraldinsight.com/doi/pdf/10.1108/03090591011070789> Accessed: 10/03/2017.
- [16] Shukla, C.P. (1975). Library education in Zambia: retrospect and prospects. *Zambia Library Association Journal*. 7 (4): 89-101.
- [17] Ugwuanyi, Chijioke F. and Ezema, Jonas U. (2010). Challenges of Students' Industrial Work Experience Scheme (SIWES) in Library and Information Science in the ICT Environment. *Library Philosophy and Practice (e-journal)*. Paper 401.
- [18] <http://www.webpages.uidaho.edu/~mbolin/ugwuanyi-ezema.htm> \_Accessed: 10/03/2017.
- [19] Yin, R. K. (2013). Case study research: Design and methods. London: Sage Publications

## Tables and Figures

### Tables

**Table 1: Activities performed by Students (4/10/2016-25/11/2016)**

Department	Work Process	Time Frame
Special Collections	Creating shelving space, digitization of theses and dissertations	4-12 October, 2016
Cataloguing & Classification	Online cataloguing, descriptive cataloguing using AACR2, subject analysis using Library of Congress Classification, assigning subjects and class marks, labeling, creating Online Public Access Catalogue	13-25 October, 2016
User Services	Checking in and out of materials, clearance of distance students, scanning students' identification cards, sensitization and desensitization of materials, shelving and shelf reading, digitizing past examination papers	26 October- 3 November 2016
Collection Development	Putting ownership stamp, accession numbers, security features, entering bibliographic data on acquisition module	4-14 November, 2016
Serials	Updating workflows, entering online journals, shelf reading serials, using OPAC to search for journals	15-23 November, 2017
Assessment	Knowledge and understanding of the areas trained; ability to analyze and interpret; willingness to receive advice; sincerity and dedicated; reactive to give opinion and ask questions; and future potential	24-25 November, 2016

**Table 2: Students' weakest areas before industrial attachment**

Students' weakest areas	Count (n)	% of responses
Lack of computer application skills in library services	26	31
Negative attitude towards training in some library sections	20	24
Desire to specialize only in what they learn in class	14	16
Lack of library product awareness	11	13
Lack of practical knowledge on librarianship	7	8
Lack of confidence	5	6
Lack of interaction with professional library staff	2	2

**Table 3: Skills students acquired during industrial attachment**

Type of skill	Count (n)	% of responses
Communication skills	35	41
Social /interpersonal skills	13	15

Computer skills	22	26
Technical skills	17	20
General library knowledge	43	51
Self discipline/integrity	8	9
Supervisory skills	12	14

**Table 4: Challenges faced by students as they sought for attachment place**

Challenges faced by students	Count (n)	% of responses
Getting a library for attachment	51	60
Library not willing to accept students for attachment	20	24
Students wanting to choose places of attachment	7	8
Choosing places not related to their profession	7	8

**Table 5: Gender and satisfaction of Industrial Attachment Cross-Tabulation**

		Satisfaction of industrial attachment		Total
		Yes	No	
Gender	Male	34	6	40
	Female	41	4	45
<b>Total</b>		<b>75</b>	<b>10</b>	<b>85</b>

**Table 6: Chi-Square Test on relationship between gender and satisfaction of Industrial Attachment**

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.762 <sup>a</sup>	1	.383		
Continuity Correction <sup>b</sup>	.287	1	.592		
Likelihood Ratio	.763	1	.382		
Fisher's Exact Test				.505	.296
Linear-by-Linear Association	.753	1	.386		
N of Valid Cases <sup>b</sup>	85				

a. 1 cells (25.0%) have expected count less than 5. The minimum expected count is 4.71.

b. Computed only for a 2x2 table

**Table 7: Extent to which students achieved objectives of Industrial Attachment**

Objectives	To very limited extent	To a limited extent	To a large extent	To a very large extent
Gain general work experience	4% (3)	18% (15)	33% (28)	38% (32)
Gain a better understanding of theory	11% (9)	16% (14)	27% (23)	40% (34)
Acquire confidence for future work	1% (1)	14% (12)	25% (21)	49% (42)
Create networks with potential employer	8% (7)	27% (23)	28% (24)	21% (18)
Improve skills	2% (2)	19% (16)	35% (30)	40% (34)
Become familiar with new technologies in the library	12% (10)	26% (22)	33% (28)	29% (25)
Help integrate the new developments into the curriculum	14% (12)	34% (29)	28% (24)	15% (13)

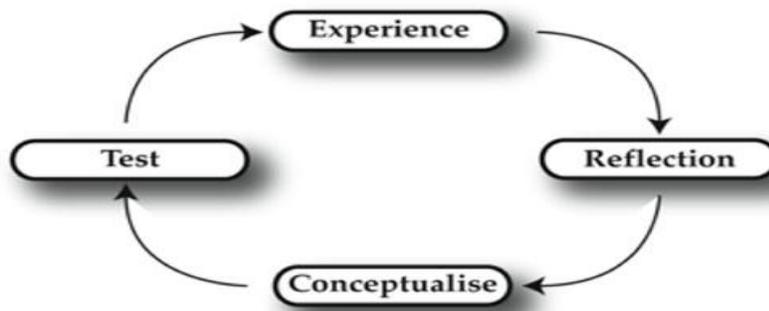
**Table 8: Specific areas knowledge was mostly gained**

Specific areas	Count (n)	% of responses
Cataloguing	28	33
Acquisition	12	14
Classification	11	13
Circulations	15	18
Computer appreciation	10	12
Digitization of documents	7	8
Reference services	2	2

**Table 9: What students would like to see changed about industrial attachment**

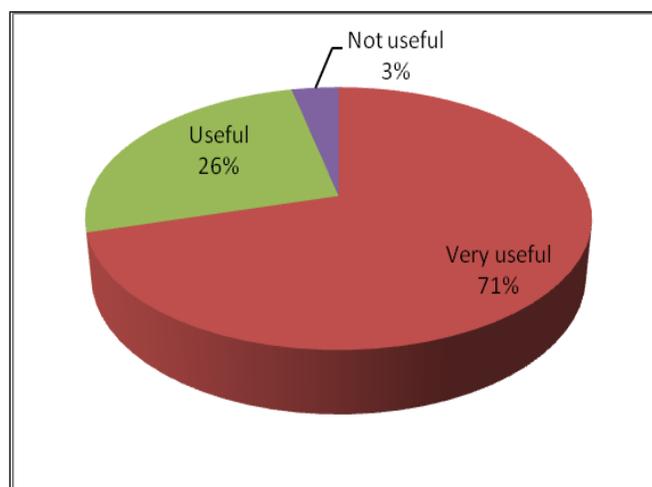
Suggested changes about industrial attachment	Count (n)	% of responses
The educational institution should look for good attachment places early enough for the students	55	65
Allowance should be given to trainees to motivate them	23	27
Lecturers should follow up students on attachment to discuss their problems, to assess and give them feedback	18	21
Attachment should be done during peak times	11	13
Reduce or increase attachment period to 3 months	6	7
Students to search for attachment places on their own	6	7
Equal treatment of students irrespective of their institutions	5	6

## Figures

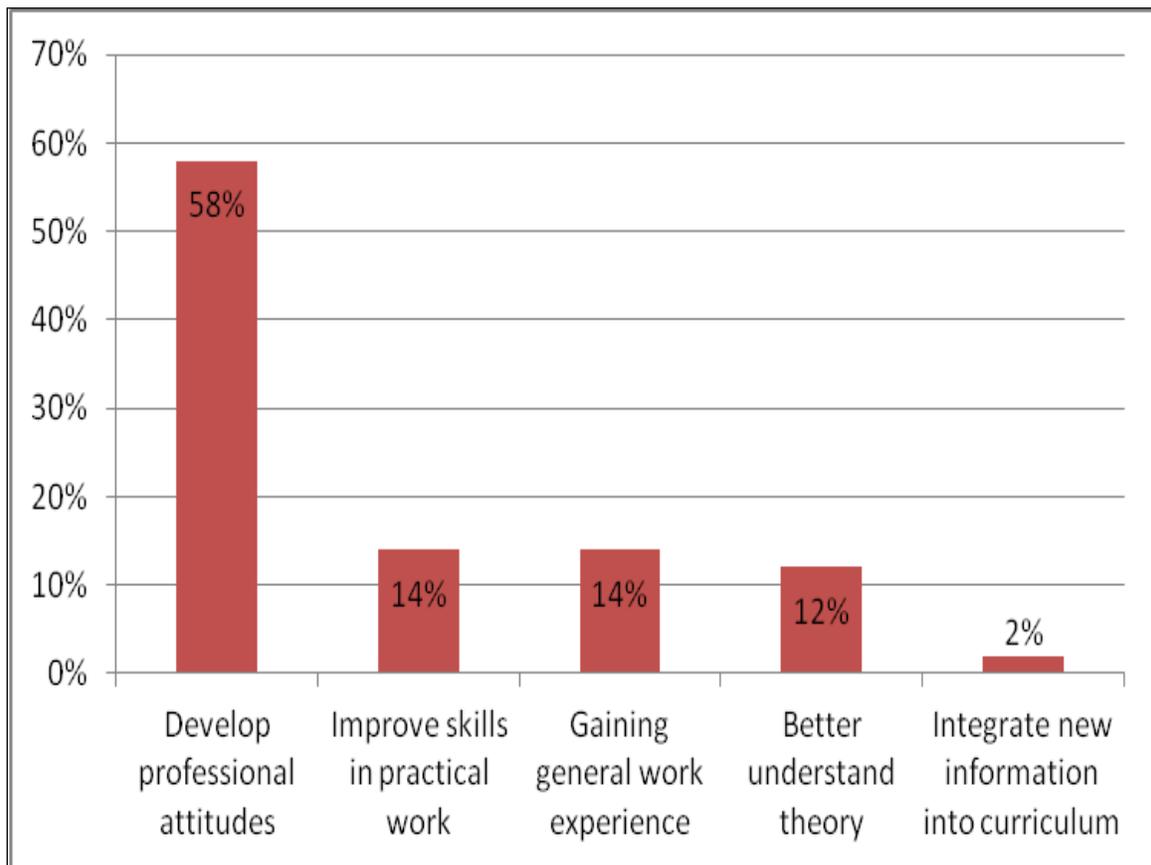


**Figure 1: Kolb - Learning Styles**

Source: McLeod, S. A. (2013). Kolb - Learning Styles. Retrieved from [www.simplypsychology.org/learning-kolb.html](http://www.simplypsychology.org/learning-kolb.html) on 01 May 2017.



**Figure 2: Rating the usefulness of skills taught at learning institution**



**Figure 3: Students' expectations after attachment**