



# Fostering Employability Skills of Mechanical Technology Students through Mentoring Approach in Industrial Training Programme

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**Abstract** - Mentorship can be provided in form of counseling, role model, as well as career support to a less experienced person. Mentoring differs in one circumstance to the other. It is interpreted in different ways by different individuals. The tenacity of this study is how mentoring technique can be used tactically to accomplish employability skills development. The study adopted descriptive survey with a structured questionnaire which was administered to sample size of 153 which comprises of 78 technical college teachers and 75 professionals in the industries. The data for the study was analyzed according to the formulated for the study with the aid of Statistics Package for Social Science (SPSS). Mean score and standard deviation was used to answer the research questions. The study revealed that mentoring in ITP promotes employability skills developments of technical and vocational education (TVE) students in the field of mechanical technology. The study also revealed that some factors are militating against the effectiveness of mentoring and employability skills development during industrial training programme of TVE. Based on the findings, the study concludes with certain recommendations. The mandate for the development of workforce employability skills has been on the increase in the world over. To gain access to the world of work is enormously depending upon having employability skills required by the industries. The acquisition of employability skills can be better activated when the recipients are still in the training institutions. Finally, the study presents mentoring from the perspectives of students' industrial training programme (ITP) as a strategic approach to foster employability among mechanical technology students.

**Keywords** - Mentorship, Industrial Training, Employability skills, Technical and vocational Education, Mechanical Technology.

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## 1. Introduction

Mentoring is a multifaceted process comprising not just guidance and suggestion, but also involve the development of self-sufficient skills, judgments, personal and professional mastership, proficiency, trust, and self-assurance over the time (Breipohl & Hamburg, 2011; Hamburg, Breipohl, & Ionescu, 2011; Nkomo & Thwala, 2016; Richert, 2006). According to Gannon and Maher (2012), effective mentoring is made on the strength of mentor-mentee relationship and interactions. Such a relationship is advantageous for the individual and organization. In several establishments both in private and public sector, mentoring has become an important tool to reinforce the performance of individuals. This is an expression of the supporters of mentoring who believe that there are noticeably identifiable benefits to mentoring (Alean-Kirkpatrick, 2011; Bailey & Schoch, 2010; Clutterbuck, 2014). The impact of any mentor whether

positive or negative depends to a large extent the skilled, commitment, availability, and well informed the mentor is (Hillman, 2010).

The practice of mentoring has come a long way since ancient times of the Trojan Wars Odysseus who left his offspring Telemachus to the care of his reliable friend and adviser "mentor" (Clutterbuck, 2014; Eby, Rhodes, & Allen, 2007; Megginson & Garvey, 2004; Miller, 2004; Pask & Joy, 2007). Mentoring programmes are becoming progressively popular internationally, and have been embraced as an approach of supporting students, young people, and professionals, even across a wide range of disciplines (Crisp & Cruz, 2009). It is a mediation strategy which supports less-experienced persons in their improvement, it has become the matter of strong academic study and prevalent investigation (Bollinger & Smith, 2001; Cox, Bachkirova, & Clutterbuck, 2014). Mentoring is a process of human

resources development that support learning and knowledge transfer (Crocitto, Sullivan, & Carraher, 2005; Hamburg, 2013). It can be planned to address characteristics such as knowledge gaps and shortage skills (Hamburg & Marian, 2012).

Employers globally are concerned about many entry-level job seekers lacking in employability skills and want the public schools or institutions to place more emphasis on the development of such skills. However, graduates deficient in employability skills is a universal issue. Employability is skills used in the application of knowledge and not job specific but are skills which cut across all industries horizontally and vertically from entry level to the top jobs. The development of any skill is best facilitated by allowing learners to practice and not by simply demonstrating it or giving a verbal description of what or how to do it. One of the essential features of technical and vocational training (TVET) is its orientation in the direction of the world of work and the emphasis of the curriculum on the acquisition of employable skills (Owodunmi, 2008; Tripney et al., 2013). In the opinion of Raimin and Akhemonkhan (2014), for TVET to encourage employability and stimulate national development there is a need for curriculum harmonization.

However, Zepke and Leach (2010) advocated a different way of fostering students' preparation in order to progress in the area of retention, completion, and employability as active and collaborative learning, educational experiences, and mentoring. According to Roberts (2000), learning and enhancement are vital to mentoring and the apprenticeship system. The role of the industrial training programme (ITP) in this aspect has become a popular focus in all academics institutions including among technical and vocational institutions in Nigeria. Industrial training programme (ITP) with specific reference to students in Technical and vocational Institutions is an essential component of National technical certificate (NTC) courses offered in order to enable the students to apply their theoretical knowledge in the real world of work. This is done through the placement of students in the industries or organisations that are relevant to their field of study to undergo industrial training within a certain period as specified in the curriculum.

Today's employers look for two classes of skills while recruiting fresh graduates; technical skills and soft skills or employability skills. Technical skills involve all job-specific skills or hard skills Dixon, Belnap, Albrecht, and Lee (2010); (Omar, Bakar, & Rashid, 2012) that the individuals learn in their formal education programmes, while Soft/ "employability" skills include communication, teamwork, organizing, interpersonal relationships, and self-confidence, among others, which individuals learn through practical experience (Boahin & Hofman, 2013; Jackson, 2013; Kar, 2012). The serious challenge that faces most graduates from various institutions these days is the inadequate development of requisite employability skills that can assist them to gain access to decent and sustainable jobs, as well as to escape from poverty and marginalization. Human

resource development, through well-planned education and training resourcefulness, can contribute significantly to promoting the interests of individuals, enterprises, economy and the general public within the country (Akinnubi & Oyeniran, 2012; Inyiagu, 2014).

Therefore, mentoring students through ITP has become imperative to give them the opportunity to develop those skills in a practical setting. It is affirmed by Clutterbuck (2014) that mentoring is a resourceful practice of developing talent by the mentee, as well as mentor. He thus suggests that a good mentoring programme would assist people to identify their abilities and limitations, and also help them to make use of the opportunities and come up with the reality of their career potential. Lankau and Scandura (2007) considered mentoring as a mutual and beneficial relationship, as well as a two-way learning process that involving for both mentors and mentees to grow, learn and develop together. Gannon and Maher (2012) summarised the important features of the effective mentoring programme into four: participant matching, participant preparation, interaction, evaluation and outline, which is considered in this study as self-explanatory to a great extent. It can be inferred and maintained in this study to support Gannon and Maher (2012) that, for mentoring in ITP of students in technical and vocational institutions in Nigeria to be successful, consideration must be placed on these features. Going by this, the mentee should be at readiness and be able to relate freely with the mentor by providing the information required to make them embark on responsibilities that could foster the development of employability skills in relation to their career pathway.

### **1.1 Statement of Problem**

Currently, employers of labour in developing countries (Nigeria inclusive) are mostly concerned with additional skills (employability skills) to the professional skills of graduates. According (Akinyemi, Ofem, & Ikuenomore, 2012); Pitan and Adedeji (2012) employers in Nigeria are not contented with the skills acquired by graduates. Also, Harvey (2000) affirmed that employability skills are one of the requirements of the employers for recruitment purposes. Despite the professional skills acquired by the mechanical technology graduates particularly from technical institutions, many of them are still found jobless. This agrees with the submission of Okafor (2011) that graduates are roaming the streets due to lack of a job. Doreo (2013) opined that unemployment in Nigeria is escalating on yearly basis. This is however not far from the fact that emphasis is laid more on professional or job-related skills with less importance placed on employability skills in technical and vocational institutions. This problem, however, requires attention on how to enhance the development of employability skills of students. Hence, this study is meant to consider the potency of mentoring in technical and vocational institutions' industrial training programme as a strategic approach to fostering mechanical technology students' employability skills.

### 1.2 Purpose of the Study

The main purpose of this study was to make it explicit and to determine how participation in a mentoring scheme through ITP would provide students with complementary opportunities to develop relevant employability skills. Specifically, the study sought to:

1. Determine the extent to which mentoring enhanced the development of employability skills through students' ITP.
2. Identify the factors militating against the effectiveness of mentoring scheme and employability skills development during students' ITP.

### 1.3 Research Questions

1. To what extent does mentoring in industrial training programme promotes employability skills developments of mechanical technology students?
2. What are the factors militating against effectiveness of mentoring and employability skills development during industrial training programme of mechanical technology students?

### 3. Methodology/ Material

Basically, this study makes use of literature review approach (materials) and descriptive survey as the methodology to accomplish the objectives. Various online database such as Google Scholar, Science Direct, e-library, among others was used in order to cover a variety of scholarly or academics publications that are relevant to the study. It is believed that online database is considered so appropriate and it provides easy access to high factor publications which are useful in this area of study. Other academic materials such as books, conference proceedings were also used manually to ensure that the literature review (background) covers a wide range of related issues.

However, this is in agreement with Webster and Watson (2002) who posited that researchers should not restrict the process of searching to a particular group of journals but make the search to other relevant database for comprehensive coverage of the relevant study. Conversely, on the descriptive survey aspect, a structured questionnaire was administered to purposively select 78 teachers in technical colleges and 75 professionals in the industries in Ondo and Lagos states in Nigeria. The instrument was validated by experts from the Federal University of Technology, Akure (FUTA), Ondo State, Nigeria. The reliability of the instrument was determined using Cronbach Alpha and the reliability index which stood at 0.86. The data collected were analysed using mean statistic and standard deviation. The questionnaire was designed in a four point scale of strongly agreed (SA), Agreed (A), Disagreed (DA), strongly disagreed (SD) and Very high extent (VHE), High extent (HE), Low extent (LE), and Very Low extent (VLE) respectively. The data for the study was analyzed according to the objectives formulated for the study with the aid of Statistics Package for Social Science (SPSS) using mean score and standard deviation.

Figure 1 shows that respondents were in agreement with all the items that mentoring in industrial training programme promotes employability skills developments of mechanical technology students. The grand mean of 3.19 also indicated that mentoring actually promotes employability skills developments.

Figure 2 with grand mean of 3.57 shows that the respondents were in agreement with all the items that they represent factors that are militating against effectiveness of mentoring and the development of employability skills during industrial training programme of mechanical technology students.

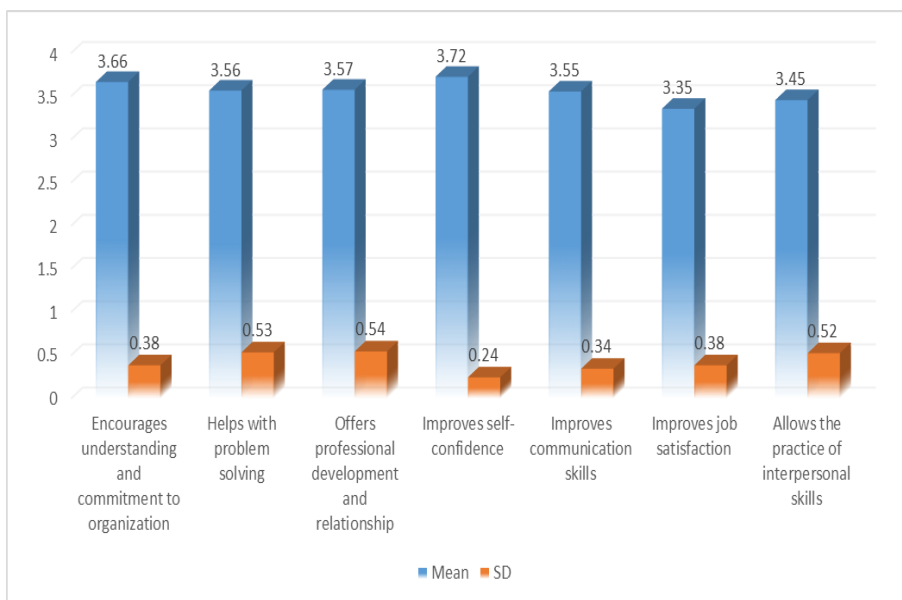


Figure 1. Mean and standard deviation on extent to which mentoring in industrial training programme promotes employability skills developments of mechanical technology students

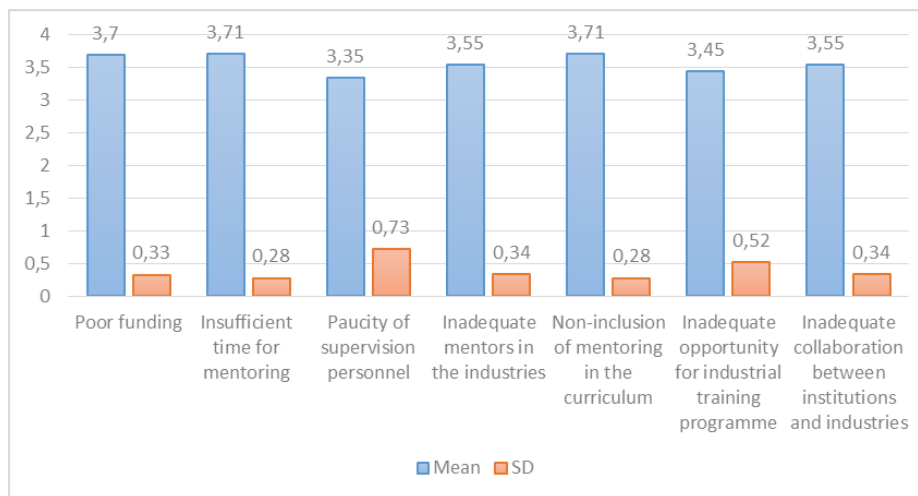


Figure 2. Mean and standard deviation on Factors militating against the effectiveness of mentoring and employability skills development during industrial training programme of mechanical technology students

#### 4. Discussion of Findings

The results from research question one revealed that mentoring scheme to a great extent encourages the development of employability skills during the industrial training programme of mechanical technology students. The mean scores for the items that mentoring in industrial training programme promotes employability skills range from 3.35 to 3.72 and the grand mean stood at 3.19 which implies that mentoring in industrial training programme actual promotes employability skills. This agreed with the position of Cox, Bachkirova, & Clutterbuck, (2014) who posited that mentoring is a mediation approach which supports less-experienced persons in their improvement. This implies that students of technical and vocational institutions require mentorship while embarking on their industrial training programme to assist them in enhancing the development of employability skills.

The research question two also revealed various factors that militating against mentoring and the development of employability skills during industrial training programme of mechanical technology students. The mean score in this aspect also range from 3.35 to 3.71, while the grand mean is 3.57. Thus, this implies that each of the factors can noticeably militate against mentoring and the development of employability skills during industrial training programme of mechanical technology students. This result was in consonance with the stance of Gannon and Maher (2012) who laid emphasis on the important features of the effective mentoring programme, which by implication was tactically and concisely highlighting the factors that may hinder the effectiveness of mentoring scheme. The result is also in alignment with Hillman, 2010 who posited that the effectiveness of mentoring programme depends to a large extent the skilled, commitment, availability, and well informed the mentor. This confirmed that those factors have negative influence over the effectiveness of mentoring programme and the development of employability skills

during industrial training programme of mechanical technology students.

#### 5. Conclusion/ Recommendations

It is obvious from the opinions of the previous researchers on issues relating to employability skills that there is still a gap between what is acquired by the students and what is required by the employers of labour. The accompanying consequences on the employability of graduates cannot be easily eliminated without consideration for the possible ways by which the students, particularly in technical and vocational institutions, could enhance the development of employability skills in addition to their professional skills. Industrial Training Programme (ITP) is one of the most important avenues to acquaint or familiarise the students to the recruitment prerequisite of employers as related to employability skills. Hence the need to take the advantage of students' ITP to foster such skills in them. Mentoring during the ITP will not only going to be the magic wand that can foster the development of employability skills but it will also change the unpleasant story of unemployment among the graduates of technical and vocational institutions. To achieve this laudable achievement, the major stakeholders such as government, College administrators/staff, industries personnel, and the students have major roles to play. Thus, the following are recommended:

1. The government should make provision for necessary and adequate funds in respect of students ITP.
2. The government should also put in place policy that will encourage mentoring during internship/ITP of students in technical institutions. This can be done by ensuring that mentoring is included in their curriculum.
3. Enabling relationship or collaboration should be created between the institutions and industries where the importance of mentoring will be emphasized.

4. The supervision and evaluation during ITP should be redesigned to embrace students' mentoring activities.
5. Students should be exposed to the importance of mentoring in the classroom before they embark on ITP. This should be done by respective teachers/trainers in technical institutions during their teaching/training.
6. There should be a reflection of ITP/mentoring in the final results of students in technical institutions.

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