

# FACTORS THAT ASSOCIATED WITH STUDENTS' ACADEMIC PERFORMANCE IN TECHNICAL, VOCATIONAL EDUCATION AND TRAINING (TVET) THE CASE OF BODITI INDUSTRIAL AND CONSTRUCTION COLLEGE: WOLAYTA

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**Abstract:** The training of citizens on the need of technologically literate would eventually lead to self-reliance and sustainability by equipping citizen with gain full skill for life, employment, gives opportunities to take part in contributing national development. (Birhanu, 2014). However, evidence indicates that, the shrinking or stagnant wage employment opportunities; and huge numbers of poorly educated, unskilled and unemployed youth. More than 80 percent of the youth are engaged in the informal sector Johanson (2004). Furthermore, the TVET systems in many African countries are characterized by existence of training programs that lack relevance to the world of work; unregulated TVET delivery; lack of quality assurance through outcome-focused assessment and certification systems; low effectiveness and efficiency in reaping/graduates/ trainees with capable of required knowledge and skill (AU, 2007). In Ethiopia, youth unemployment is still very high and those who make a living in the informal sector live at the margin, the need for effective skills development for socio-economic development and poverty alleviation should be the urgent priority area of TVET institution. (Psacharopolos, G. (2012). Therefore, there is high expectation that TVET facilitates economic growth and poverty alleviation by preparing student/trainees/ with expected skill, knowledge and attitude for world of work, in order to deal with the problem of too many people looking for job and too many jobs going unfilled (UNESCO, 2001). It is fact that acquiring occupational skills depends on various contexts of trainees training institution, teachers and social environment. The process ensures them to perform according to the skill they acquired in order to improve the skill that already have to meet the current technology (UNESCO 2016). Hence this study was conducted that what are the factors that associated with students' academic performance in technical, vocational education and training (TVET) the case of Boditi industrial and construction college of Wolayta.

**Key Words:** Factors, Students' Academic Performance, Technical, Vocational Education and Training (TVET) and Boditi Industrial and Construction College.

## Introduction:

Education is the act or process of imparting or acquiring general knowledge, developing the power of reason and judgment and generally of preparing oneself intellectually for mature life. Education is the basis for social, cultural and economic development. (UNESCO 2006). By improving the capacity /capability/ and productivity, education and training is the most powerful factor that significantly changes the life by reducing poverty by ensuring food security. (MOE, 2007). Therefore, education and training should link productive society to bring talented skillful human power; because the development of any country depends on the active and responsive participation of its workforce.

Without having adequate workforce with the necessary knowledge, skills and attitudes, one cannot imagine changes that lead to development in the social and economic sectors. Antonios (2006). Quality, demand-driven TVET and skills development, both in and out of school, are potentially among the most important tools for equipping young people with the skills they will need ILO (2015). As result, technical vocational education and training (TVET) plays a pivotal role. In line with this, UNESCO, international standard classification of education (2010), defines TVET as "to acquire the practical skill know how and understanding necessary employment in particular occupation for world of work, (P.19).

Technical, vocational education and training used as a comprehensive term in educational process involving in addition to general education, the study of technologies and related sciences as well as acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. UNSCO (2002).

According to Uwaifo (2009), technical education is the training of technically oriented personnel who are to be the initiators, facilitators and implementers of technological or industrial development of a nation.

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### Statement of problem

Equipping citizens with relevant knowledge and skills to develop their competence for active engagement in economic activities and better standard of living is critical for the development of any nation regardless of context. (Getachew, 2016). The process of putting these in to action depends on many factors. As Adetoro pointed out that, performance or competence of trainees in education and training institution considered on the basis of how good and efficient the teachers are; how adequate and accessible the facilities and materials needed for effective teaching and learning are; how the graduates are prepared for meeting the challenges of life and for solving the social problems. Adetoro (2012) The relevance of education and training in such a system with competence of learners/students is key indicators of quality of TVET than the mere accomplishment of it with a certificate. (Journal of Poverty, Investment and Development [www.iiste.org](http://www.iiste.org)). Following the implementation of the 2008 TVET strategy, the percentage of formal TVET graduates who were recognized as competent by the assessment and certification system increased from 17.42% in 2009/2010 to 40.23% in 2011/2012 ME (2010). But there is regional variation in the concern of trainees' performance on COC exam which provided to check the quality or competency of TVET student in (SNNPRS).

### Objective of the Study

#### The General Objectives of the Study

The general objective of the study is to investigate factors that affect trainees' academic performance in Technical vocational educational and trainings program in Boditi industrial and Construction College.

#### The Specific Objectives of the Study

- To identify institutional related factors that affects student academic achievement
- To identify learner related factors for trainees' effectiveness in training program
- To examine Teacher related factors that affects student academic achievement
- To suggest possibilities for trainees' performance in TVET program

### Significance of the study

The result of this study will contribute to explore weakness and strengthen of training program being implemented in the college. It hoped to offer an insight for regional, zonal, and local governments are working together with institution to promoting the level of qualified workforce bearing. It also helps to create awareness for TVET administrative body about the performance of student in the training program. Fatherly it benefits other individuals on further investigation as well as secondary source of the data.

### Delimitation of the Study

To make the study specific and manageable, the study will be delimited geographically, at Boditi industrial and Construction College. To make the study manageable, the study was conceptually concentrated on the institutional, learner and teacher related factor that defects the anticipated training achievement of student in the college.

### Limitation of Study

It is fact that in every activity there is limitation that hinders ongoing activities. In line, the researcher faced the following drawbacks in this study.

- ✓ Overlap of my appointment with college deans' body and their meeting appointment with zonal and regional responsible bodies
- ✓ Repeated appointment postponing of registrar worker to obtain document or annual report

### Review Related Literature

Technical vocational education and training (TVET) is in all probability of as old as humanity Ebrehim 2014). TVET is a comprehensive term referring to the education process which involves the study of technology and related science and the acquisition of practical skill and knowledge relating to an occupation in various sectors of economic and social life. UNSCO 2002). TVET defined as a vocational or technical training which given in the institution as a program designed to fit an individual with skill, knowledge and attitude for gainful employment. According to MOE (2003) the major objectives of the TVET in addition to producing competent middle level man power, producing skilled labor that can adapt to the requirements of the labor market and one that possesses the necessary capabilities to become self-employed. TVET is both foundation and specialist skill to provide individual who enable them to find employment and to launch their own business, to work productively and adopt different new technology tasks and new condition.

TVET is used in its broadest sense to cover all aspects of training and skills development of all cadres, whether formal, non-formal or informal. It also includes the issues of demand and supply of skills, employability, improving skills, ability for self-employment, and retraining, versatility and continuing apprenticeship (OECD, 2006).

### Historical development of technical vocational education and training

Over the last 40 years the importance attached to TVET in national and international development agendas has varied. During 1960s and 1970s, technical vocational skill development became popular in many African countries as way to ease the problem of unemployment among school leavers. (Promoting youth employment, 2012). However, 1980s budgetary pressure resulted reducing the share government to formal TVET rates in many African countries. i.e. the share of government budget is higher in general and higher education than TVET. Due to this vocational education undermined and lacked external support for TVET. It has been gaining momentum since mid-2000. (Developing TVET in Africa, 2008).

During the 1990 the international policy debate on education was mainly focused basic education. Although skill training, apprenticeship and formal TVET programs seen as component of the expanded vision for basic education at world conference on education for all, (WCEFA in Jometin, 1990) they have not featured substantially as a core element of the global agenda of education since that time. The tendency of universally primary education for all in turn incorporated in millennium development goal in 2000. In mid-2000, recognizing that universal primary education entails the need for coherent pathway to further education and to skill for employment and self-employment.

### The role of TVET for skillful human resource development

Technical vocational education and training (TVET) is considered in Asian Development Bank (ADB) as the project operations which aimed to cover occupations in primary/agriculture/ secondary, /manufacture/ and tertiary /service/ sectors of the economy, ADB (2009).

The chief goal of the education and training policy in Ethiopia is the cultivation of citizens with an all-round education capable of playing conscious and active role in the economic, social, and political life of the country at various levels. MOE (2001). Although, Ethiopia has improved its performance in the area of human development since 2000; the country performs poorly on human resource development when compared to other countries in the world (United Nations Development Program (UNDP, 2015). For example, Ethiopia's human resource development index value in 2014 was 0.442, which is below the countries in the low human resource development category (0.505), placing the country 174th out of the 187 countries surveyed.

According to Ministry of Education pointed out, TVET has the following role for human resource development.

- It develops a coherent career guidance professional, independent and informed by labor market information.
- Ensures work force is well acquainted with in the need of modern industry.
- Provide young people with generic, transferable skill to support occupational and lifelong learning.
- Ensures teachers and trainees are well prepared with industry experience.
- Provide good sources of information about career and courses
- Ensures all students have adequate numeracy and literacy skill to support lifelong learning and career development.

A successful TVET and skills development system include: Relevance to the labor market; Strong involvement of the private sector; good access for trainees; high quality of delivery; secure and uninterrupted financing and institutional management; ILO (2010)

### Curriculum of TVET

Curriculum development can be defined as systematic planning of what is taught and learned in school as reflected in course of study and school program. The primary focus of curriculum is on what is to be thoughts and when leaving to the teaching profession, as to how this should have done in practice. Curriculum development for vocational training should implement effectively. One of the most important in TVET was development of competence-based curriculum. That offered in off the job training, on the job training and class-based training or instructor lead training. The subject matter has been divided in module. The module stated through work station and sub divided in to learning elements; these learned by caring out task which help to acquire employable skill (MOE 2005).

### Quality assurance in TVET

The concept of quality has been one of the most important concepts in contemporary educational terminology. In terms of general concept, quality is defined by Zelbys, as the ability or the degree with which a project, service or phenomena conference to an established standards which makes it to be relatively superior to others Zelbys (2004).

Quality assurance is not just a feature of finished product or service but involves a focus on internal process and output which includes the reduction of waste and the important of productivity. With respect to education and training African union, quality is a multidimensional concept, enhancing all function and activity of education system including teaching and academic program, research and scholarship, satisfying students building facilities, equipment and services to the community. (AU 2007)

### The roles of Teachers

TVET teacher training and teacher professional development play a crucial role in implementing competence-based TVET. What is the most important skill a teacher must have? He or she must be able to teach teaching! He or she must consider his or her students, he or she must identify himself or herself with the school, and he or she must be able to work under psychological pressure and should be interested. Apart from these, a teacher must be a social worker, a psychologist, a mediator, a communicator, a team worker, an expert a "knowledge networker". He or she must also be able to get acquainted with new subjects, to access new subjects, to work with different target groups and above all he or she must have a lot of empathy and intuition. Georg (2014).

Teachers are expected to model in interpersonal relationships and teach/impart values which uphold peace including tolerance, recognition and respect and other range of skills such as critical thinking, cooperation, and collaboration. Yusuf.S (2015). Quality of competent teacher is considered as pivotal for trainees' achievement of desired outcome in TVET institution. The qualification of teacher/trainer/ in TVET institution is different from those of general education. Instructors are not teachers or educators they are crafts men in sometimes they have to work as advisor in particular as business advisor. Hence, an instructor has to have variety of abilities. Some of this includes

**Teacher-student interaction:** a teacher and students respond to one another or interact together through verbal or non-verbal responses, such as questioning, discussing, presenting, explaining, answering, respecting, facial expression, and personal space during classroom teaching.

**Student-student interaction:** students respond to one another or interact together through verbal and non-verbal responses, such as discussing, brainstorming, talking, writing, questioning, answering, touching, and facial expression during classroom learning. Education competence in the present world is interwoven with the progress of every society. According to the modern concept of education, cited in Deepa (2014), best adjustment of school climate, parental involvement, student teacher interaction and peer interaction is the ultimate goal of education.

### Management of TVET

The federal TVET agency is responsible for coordinating development. According to national strategy of TVET in Ethiopia, (2008) federal TVET agency have the following functions and responsibilities.

- ❖ Formulate TVET policy paper and legislation
- ❖ Develop rules and procedures for occupational standard
- ❖ Set and approves national occupational standard
- ❖ Develop rules and procedures for occupational assessment, oversee its implementation

- ❖ Approves assessment items, instrument and manage assessment item bank
- ❖ Develop Ethiopian TVET qualification framework and communicate with the minister of education about the development of an overarching national qualification work.
- ❖ Develop TVET certification system and follow up its implementation
- ❖ Develop rules and guideline for financing TVET.
- ❖ Facilitate a conducive and stimulating environment for further development of private TVET provision.
- ❖ Develop an accreditation system for TVET institution and oversee the implement
- ❖ Diverse strategies for capacity building of public and private TVET provision.
- ❖ Conduct monitoring and evaluation of TVET report.

The federal TVET council established different committee as necessary for the fulfillment of its function. At regional level, similarly institutional set up depending on particular situation. TVET council in regional level performs the following activities.

- Formulate state TVET policy paper, legislation and prepare state TVET developing plan.
- Organize quality management.
- Define responsibilities of TVET authority at zonal and woreda level and support zonal and woreda TVET institution.
- Monitor the implementation of TVET at regional or state level.

### Financing of TVET

To sustainable increase of the quality of TVET and to upgrade the intake capacity of the sector, new funding mechanism for TVET was developed (MOE, 2008). A major mechanism to sustainably generate additional resources is stimulating private investment in TVET and enhance involvement of companies. Another mechanism to improve the resources base is cost reducing through increased efficiency in delivery of training. TVET system which strength alternative and more cost-effective mode of TVET deliver raise quality of TVET program in TVET institution.

### Factors that inhibit the performance of students in TVET program

As economies move from relative dependence on agricultural production to the manufacturing and service industries, workers and enterprises must be able to learn new technical, entrepreneurial, and social skills.

Skill enhancement is not only benefit trainees/graduates of TVET but Society benefits as well from a skilled workforce for example, a sufficient mass skillful citizen can attract foreign investment, as in Republic of Korea and China; Apart from these, Well-trained workers teach good skills and discipline to their colleagues contrarily, poorly trained workers teach bad habits and perpetuating inadequate quality of the workforce (Castro 2009).

- Low quality
- Poor public perception
- Uncoordinated, unregulated and fragmented delivery system
- Weak monitoring and evaluation
- Gender and economic inequities
- Lack of adequate budget allocation

### Research Design and Methodology

#### Description of the Study Area

The study was conducted in Boditi industrial and Construction College which located in Wolayta Zone of Damot Galie Woreda in south Nation Nationality people Region state. The town has latitude and longitude of 6-degree 58 North and 37-degree 52 East with an elevation of 2050 meters sea level. Boditi is 380 km from Addis Ababa. since 2011 E.C the college is named as Boditi technical vocational education and training. Currently it named as Boditi industrial and construction. The college is operating training from level one up to level four. In addition, the college providing short term training for nearby small-scale enterprises association.

#### Research Design

The study used mixed approaches i.e., both qualitative and quantitative approach because using multiple approaches or methods of research enable the study to get different data. (Creswell, 2003). The application of qualitative approach enable to understand deeply about the issues in the institution and helps the study to obtain the data related with belief, opinion, idea etc substantially to describe characteristics and nature of existing situation. And in quantitative approach, the study obtained the data that related with statistics. This enables the study to investigate the prevailing situation, the present condition of training program in the colleges and describe the opinion and fact related with factors for trainees' poor performance in TVET in the College.

#### Population, Sample and Sampling Techniques

There are four (4) levels of training program in the college. Majority of student were taken from level two, three and level four. This is because they are highly accustomed with or experienced more about the TVET program delivery system and the college in their long time spent in the college than that of the rest. And also majority of student who are poor in occupational assessment result /COC exam / are from levels three and level four of training program as the last four consecutive academic year COC report shows; by hoping that these students have clear figures behind poor achievements of the desired outcome. The study also involved fourteen instructors and three of top management and academic dean for interview by using purposive sampling techniques because the researcher believes that these persons as personnel are key informants on the studying issue.

The following table describe, population, sample and sampling techniques

Table 3 population, sample and sampling techniques

Management	population	sample	Sampling techniques
	13	3	Purposive sampling
Instructor	130	14	Simple random sampling
Trainees			



Level II	478	28	Simple random sampling
Level III	309	55	Simple random sampling
Level IV	79	7	Simple random sampling
Total	1015	107	

### Sources of the Data

The study used both primary data and secondary source of the data. The primary source of data includes TVET learners/trainees who are preparing themselves to take COC exam, instructors, managements and academic deans of the college. Whereas, as secondary source of the data includes annual and quarter report, document and other relevant literature. So, the combination of these (primary and secondary data) helped the study to get clear features of factors that affects trainees' effectiveness in TVET program in Boditi industrial and Construction College.

### Data gathering instrument

The main data gathering instruments were questionnaire, interview, observation and document analysis.

#### Questionnaire

The nature of questionnaire was both open ended and close ended questionnaire. Open ended questionnaire gives chance to respondent to express his or her own feeling or idea. (Marriam, 1998). The item was made to focus on how to make effective and what variable affecting the effectiveness of the TVET program. Therefore, questionnaire given to teacher and trainees of TVET College to obtain the data which shows factors for trainees' poor knowledge, skill and attitude performance in TVET program. It is helpful to the study to collect large amount of data with in short time taken and it also keeps the anonymity of the respondents.

#### Interview

Contains vocal questionnaire and it involves direct interaction between individuals. The nature of interview was unstructured. Because, it allows the respondents to express his/her views in the way he/she likes. (Marriam, 1998). It also permits much more freedom to talk about the problem under the investigation. As result, the study used it to get in depths information about factors that affects/leads poor performance of learner in TVET program. Therefore, the study involved management, and academic deans of the college.

#### Observation

Observation Is a techniques or methods relying on what seeing, hearing and recording through observing rather than relying on subject. The observation checklist used as the main data gathering instrument since the purpose of the study was to examine factors for poor performance of students in the training program. The observation checklist consisted of items that focus on the adequacy of buildings, libraries, laboratories, research and development centers, computer laboratories, classrooms, and workshops, recreational center and related training facilities that may have triple roles on students' achievement of ultimate desired goals. Observations also enable the study to understand and identify the existing factors for poor performance of student in TVET program there by triangulating with the rest of data that obtained by the rest of tools.

#### Document Analysis

Document analysis employed as main data collection instrument. It mainly used or employed for investigating the number of TVET training who take COC exam and the rate of trainees/students' promotion in occupational assessment of the college in the last four (4) years. Documentary evidence will employ to test to what extent institutional factors affect trainee performance in TVET against student promotion and improvement TVET college. Therefore, the revised document includes department reports, college profiles and other relevant literature to strengthen the information obtained through questionnaire and interview, so that document such as, annual reports and statistical data are referred to get additional evidences.

#### Data collection Procedure

Before gathering data, the study revised related literature and develop data collection instrument then the instrument commented by advisor before starting to collect the necessary data for the main study, the researcher piloted the data collection instruments in order to check their reliability and validity and based on the comment , the instrument revised and edited again and finally distributed to the respondent by the permission of colleges administrative bodies then the collected data s organized ,tallied analyzed, presented and finally discussed together with document data

#### Methods of Data Analysis

The data analyzed after collection of data which gathered through questionnaire, interview, observation and document analysis. The data that gathered through questionnaire tabulated, tallied and structured in respective categories and analyzed by using percentage or descriptive method in SPSS software. And data that gathered through interview and observation analyzed in word, phrase and the result are used to supplement the quantitative data; more over the data obtained through document analyzes will presented in table and analyzed in word and phrase as well as document analysis analyzed by using descriptive words.

#### Demographic backgrounds of the respondents

This section presents the backgrounds information of the respondents. It analyzes and provides the characteristics of the respondents like sex, age, marital status, level of study and field of the study are analyzed and interpreted

#### Gender of Respondents

Table 4: Gender Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	5	46.0 . 0	60 . 0	60 . 0
female	3	64.0 . 0	40 . 0	100 . 0
Total	9	0100 . 0	100 . 0	

The results in the table revealed that majority (60%) of the Trainees were male while (40%) are female which indicate the number of males in the college exceeds that of female.

**Age of the respondent trainee**

The respondents asked to indicate their age and the results are shown in Table.

Table 5 Age of The Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 15 - 25	7	38.1 . 1	81 . 1	81 . 1
26 - 35	1	71.8 . 9	8 . 9	100 . 0
Total	9	0100 . 0	100 . 0	

Regarding age range as indicated in the table above, 73 (81.1) of the respondents are under 15-25 years and 17(18.9) of the respondents are under 26-35 years. From this, it is to understand that majority of the respondents are considered as adults' learners. Hence the study believes them as they are convinced to reveal the challenges that hamper their learning goals.

**Marital status of the respondents**

Table 6 Marital Status of The Respondents

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid married	6	6 . 7	6 . 7	6 . 7
single	8	49.3 . 3	93 . 3	100 . 0
Total	9	0100 . 0	100 . 0	

As indicated above table, majority of the respondents 84 (93.3) are single. Whereas 6(6.7) of respondents are married interims of marital status.

**Respondents Level of training**

Table 7 Respondents Level of training

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid level two	2	83.1 . 1	31 . 1	31 . 1
level three	5	56.1 . 1	61 . 1	92 . 2
level four	7	7 . 8	7 . 8	100 . 0
Total	9	0100 . 0	100 . 0	

Regarding level of study as indicated in the table, 28(31.1%) of the respondents are from level (LII) two, 55(61.1%) of the respondents are from level (LIII) 3, and 7(7.8%) of the respondents are from the level LVI) 4. Majority of the respondents are taken from level three for to obtain optimum data based on their number and richness of information due long time spent in the college compared with that of level two.

**Respondents field of studies**

The table 8 blow indicates each respondent's field of study or department/program/ that they engaged.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid I C T	2	022 . 2	22 . 2	22 . 2
m a s o n r y	1	820 . 0	20 . 0	42 . 2
auto electricity	1	011 . 1	11 . 1	53 . 3
G M F A	9	10 . 0	10 . 0	63 . 3
automotive technology	1	112 . 2	12 . 2	75 . 6
S u r v e y	5	5 . 6	5 . 6	81 . 1
electrical equipment	6	6 . 7	6 . 7	87 . 8
water supplying system	1	112 . 2	12 . 2	100 . 0
T o t a l	9	0100 . 0	100 . 0	

As indicated above table, 20(22.2%) of the respondents were from Information Communication Technology ICT and 18(20%) of the respondents were from masonry on the other hand, 10(11.1) were from; GMFA, while 11(12.2%) were from automotive

technology; 5 as well as, (5.6%) were from surveying and also 6 (6.7%) were from electrical equipment finally 11(12.2%) of respondents are from water supplying system, from total number of ninety (90) respondents. The selection of respondents from each department or field of study helps the study to obtain the data on behalf of what they experience in their field of study in the college to insure excellence in knowledge, skill and attitude from institutional, student/learner and teacher/instructors' dimension

**Demographic information of instructors**

The demographic information shows the characteristics of the instructors based on their gender, age, marital status, academic qualification and training experience.

**Gender of the instructors**

The instructors were asked to indicate their gender and the results are as presented

Table 9 gender of instructor responders in the college

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid male	1	78.6	78.6	78.6
female	3	21.4	21.4	100.0
Total	4	100.0	100.0	

The results in the table indicate that there are slightly more male instructors than female instructors/ teachers in the college.

**Distribution of instructors by age**

The instructors were asked to indicate their age and the results are as shown in the Table.

Table 10 age description of instructor respondent

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 25-35	8	57.1	57.1	57.1
36-45	6	42.9	42.9	100.0
Total	14	100.0	100.0	

The Table above shows that majority of the instructors 8 (57.1%) are under the age of 25-35 years and 6 (42.9%) are under the age of 36-45 year.

Hence it believed that majority of instructors are under the age possibility of potentially preparing trainees to meet the skill, knowledge and attitude gaps, which enhance them to engage in world labor market demands

**Marital status of instructors**

Table 11 marital status of instructors

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid single	2	14.3	14.3	14.3
married	12	85.7	85.7	100.0
Total	14	100.0	100.0	

As indicated in the table, 12(85.7) of instructors are married where as 2 (14.3%) are single this indicates that majority of the respondents are married than that of the single.

Table 12 area of specialization of instructors

	Frequency	Percent	Valid Percent	Cumulative Percent
Hydraulics	2	14.3	14.3	14.3
construction management	8	57.1	57.1	71.4
furniture making	1	7.1	7.1	78.6
civil engineering	1	7.1	7.1	85.7
information communication technology	2	14.3	14.3	100.0
Total	14	100.0	100.0	

As the table above indicates that 2(14.3%) of instructors are qualified in hydraulic whereas 8(57.1%) of instructors are qualified in construction technology management (COTM),1(7.1%) of instructor is qualified in furniture making, again 2(14.3%) of respondents are qualified in civil engineering also finally 2(14.3%) of respondents are qualified in information communication technology of total respondents hence the study believes that it is helpful to obtain adequate information from each field of study for major challenges for trainees academic performance in the college.

**The level of academic qualification of instructors**

Table 13 level of academic qualification

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid advanced diploma	2	14.3	14.3	14.3
degree	12	85.7	85.7	100.0
Total	14	100.0	100.0	

Regarding to the level of academic qualification of instructors as shown in the table show above, 2(14.3%) of instructors are advanced diploma holders whereas 12 (85.7%) of instructors are degree holders of fourteen selected respondent instructors. This indicates that majority of instructors in the college are degree holders than diploma and advanced diploma interims of level of educational /academic/ qualification

#### Institutional related factors that affect student academic/performance / achievement

One of the objectives of the study was to identify institutional related factors like training facilities such as instruments, machines, workshops and others that affect student academic achievement/performance in the college. The study used questions that were directed to the trainees, instructors and academic deans of the college and answers with the data obtained through observation, and document analyses are discussed and described as follows

Table 14 Questioner given to trainees on Institutional related factors for trainees' low academic performance

	Strongly agree		agree		Disagree		Strongly dis agree		undecided	
		%		%		%		%		%
the workshop for practical training is adequate	25	27.8	36	40	22	24.4	7	7.8	0	0
The training machine, equipment and tools are available & accessible.	30	33.3	18	20	36	40	4	4.4	2	2.2
There are qualified guidance and counseling service provision in the college?	9	10	19	21.1	54	60	6	6.7	2	2.2
the training given in theoretical is matched with practical one	28	31.1	16	17.8	36	40	9	10	1	1.1
there is available internet service in the college	12	13.3	8	8.9	60	66.7	8	8.9	2	2.2
there is adequate electricity supply in the college	33	36.7	15	16.7	35	39.3	5	5.6	2	2.2
sport field tool like volleyball, tennis accessible in the college	12	13.3	23	25.6	43	47.8	11	12.2	1	1.1
Is there life skill training in the college?	4	4.4	10	11.1	51	56.7	15	16.7	10	11.1
computer lab is accessible to all levels of student/trainees	18	20	15	16.7	45	50	11	12.2	0	0
the compound is well guarded and attractive to student	11	12.2	34	37.8	38	42.2	6	6.7	1	1.1
there is enough potable water supplies in the college	23	25.6	28	31.1	27	30	11	12.2	1	1.1
there are adequate reference materials, text book and module in relation to the field of study in the library	12	13.3	29	32.2	39	43.3	9	10	1	1.1
there is adequate road infrastructure in the college	25	27.8	15	16.7	38	42.2	10	11.1	0	0

As indicated in the above that related to adequacy of workshop for practical training, 27.7% of respondent revealed that strong agreement of adequacy of workshop for practical training. Whereas 40% of respondents indicated their slight agreement up on adequacy of workshop for practical training; on the other hand, 24.4% of the respondents are revealed disagreement on adequacy of workshop for practical training and 7.8% of respondents are revealed their strong disagreement on adequacy of workshop for practical training in the college From this one can easily understand that majority of respondents agreed that there is adequate work shop for practical training in the college. In addition to this, the data obtained through observation shows, there is work shop for practical training but one of the problems in the college that, it is not substantially used as the demand of trainees in the college. This in turn adds its negative shadow up on trainees' skill, knowledge and attitude attainment / performance.

Table shows Instructors' response for institutional related factor that affect trainees academic performance in Boditi industrial and construction college.

	agree		Strongly agree		disagree		Strongly disagree		undecided	
		%		%		%		%		%
the workshop for practical training is adequately prepared in the college	11	78.6	0	0	1	7.1	0	0	2	14.3



the training machine, equipment and other training tools are accessible to teacher and trainees	6	42.9	0	0	4	28.6	0	0	4	28.6
the training given is more theoretical than practical due to shortage of practical training inputs	7	50	1	7.1	2	14.3	0	0	2	14.6
there is qualified guidance and counseling service provision in the college?	2	14.3	0	0	8	57.1	2	14.3	2	14.3
there is adequate internet service to ease teaching and training process in the college?	0	0	0	0	9	64.3	3	21.4	2	14.3
cafeteria and other recreational centers are available in the college	5	35.7	2	14.3	4	28.6	0	0	3	21.4
there is adequate potable water supply in the college	11	78.6	2	14.3	1	7.1	0	0	0	0
There is qualified life skill training provision in the college?	1	7.1	6	42.9	7	50	0	0	0	0
there is adequate reference materials, text book and module in library for each field of study	7	50	4		4	28.6	1	7.1	2	14.3
Students are taken to industry for manual practice of theory that has been given in the college.	2	14.3	6	42.9	5	35.7	1	7.1	0	0

Table 14 revealed that majority of respondents agreed with all the items as institutional factors that act as challenge factor for attaining trainees required skill knowledge and attitude in TVET program in Boditi industrial and Construction College. From the data obtained through open ended questioner one revealed that *"we have no satisfactory training materials and equipments during the training session but the college brought or borrow it from other institution for COC exam at the end of training year. He added that how it could be possible to equip trainees with targeted skill if we train them theoretically and the college assesses them practically at the end of training year?"* From this, one can easily understand that poor provision of facilities and equipments; in TVET institution is one of impeding factors for trainees required academic achievement. Learning resources are very crucial for implementation of any curriculum and important dimensions of quality in the learning process. Beverly (2005). Therefore, using a range of training materials enhances effective training and teaching of any subject; is guarantee to learners' skill, knowledge and attitude performance in the institution. Additionally, UNESCO argues that the availability of a wide range of teaching materials, equipment supplies, and various forms of printed media for teachers and learners is critical to facilitate teaching and learning worldwide UNESCO (2005).

#### Learner related factor

In this sub section, learner related factors that affect trainees' academic performance are listed and learner were asked show their level of agreement

Table shows that Trainees Related Factors that affects academic performance of trainees in Boditi industrial and Construction College

In the following table some supposed learner related factor that affects learner achievement on the required skill and knowledge performance

		Strongly agree		agree		disagree		Strongly disagree		undecided	
			%		%		%		%		%
1	most of trainees have positive attitude towards TVET	12	13.2	35	38.9	33	36.3	6	6.8	4	4.4
2	Trainees have Language difficulty because the training and the COC exam is provided in English language	19	20.9	36	39.6	23	25.6	8	8.9	4	4.4

3	Trainees are not adequately preparing for exam and related assessment.	18	19.8	23	25.3	42	46.2	5	5.6	3	3.3
4	Students follow responsibly daily lesson and instruction from teacher	3	21.4	0	0	7	50	2	14.3	2	14.3
5	Student complete assignment, project and related task on the given deadline	8	57.1	1	7.1	3	7.1	0	0	2	14.3
6	Students reading culture\habit	4	28.6	2	14.3	7	50	0	0	1	7.1
7	Do you think that all your students have positive relationship with their teacher	0	0	7	50	2	14.3	1	7.1	4	28.6
8	students of the college are behaviorally matured and obedient to rules and regulation of the college	0	0	6	42.9	4	28.6	1	7.1	3	21.4

With regard to the learner/ trainees/ related factors for poor academic performance, the level of attitude of learner towards TVET as indicated in the above table, 13.2% and 38.9% of respondents reveal that learners have positive attitude towards TVET whereas 36.3 and 6.8% of the respondents revealed their disagreement as the learners have positive attitude towards TVET, and the rest 4.4% are undecided about learners' attitude towards TVET program. Apart from this the response of instructor in question number four (4) and six (6) of the above table informs us those trainees have no such much positive attitude towards Technical, Vocational Education and Training (TVET). on the other hand, the data obtained from instructor respondents through open ended question, indicates that students have no full information related to their field of study or training program. Due to these learners engage in field of study without having adequate information from the program implementers. This in term reduces trainee's interests after they start to continue the program. This directly affects trainee's academic performance in their training program as well as occupational assessment at the end of training courses.

#### Teacher related factor

In this sub section, teacher related factors that affect trainees' academic performance are listed and learner were asked to show their level of agreement In the following table some supposed teacher related factor that affects learner achievement on the required skill and knowledge performance

Table shows that Teacher related factors that affect academic performance of trainees in Boditi Industrial and Construction College

	agree		Strongly agree		disagree		Strongly disagree		undecided	
		%		%		%		%		%
all my teachers are teaching us through more practical than theoretical	11	12.1	35	38.9	37	41.1	3	3.3	4	4.4
Teachers are committed to follow up trainees' performance for further skill development	11	12.1	38	41.8	36	39.6	5	5.6	0	0
do you think that all your teachers are role model for you in behavior in the college	20	22.	35	38.9	30	33	5	5.6	0	0
my teacher encourages students morally and advise to achieve in the program	26	28.6	32	35.2	29	31.9	2	2.2	1	1.1
The teacher allocates adequate time to accomplish the exam?	49	53.8	25	27.5	13	14.3	2	2.2	1	1.1

As the first item of the above table shows that 12.1% of respondents indicated their strong agreement and 38.9% of respondent revealed their slight agreement that instructor use more practical than theoretical where as 41.1% of respondents disagreed and also 3.3% of respondents are strongly agreed as the training is more practical than theoretical. This section triangulated and discussed in table 14, instructor response for supposed institutional related factors for trainees' poor academic performance.

#### Summary of the Major Findings

##### Institutional related factors

The finding of this study showed that the top five institutional factor which negatively affect the skill, knowledge performance of learners in TVET program in Boditi industrial and construction college are, machine, equipment, in availability of library service, Low supply of power supply, absence of life skill training, more theoretical based training than practical and in adequate guidance and counseling service provision in the college and weak run to discharge their roles in networking with sister organization.

### Learner related factors

In addition to intuitional factor, the main personal reason for trainee/learner/, are language difficulty, because the training and COC exam given by English language, low level of trainees' effort to do given assignment and project. The combination of the above two factors i.e. institutional and learner personality factors hampers the smooth performance in trainees required knowledge, skill and attitude achievement in the given program as well as in occupational assessment result at the end of training year in Boditi industrial and construction College.

### Teacher related factors

low commitment of some instructors, to follow up trainees for boosting learners' performance in knowledge skill and attitude, low empathy and intuition /interpersonal relationships and other range of values; and institutional

### Solutions to Improve Trainees Academic Performance

When the respondents were asked to provide the possible solutions to boost knowledge, skill and attitude, they provided the following major solutions. These were creating available access a to the training inputs, like training machine, equipment library and related facilitating adequately with the intended goals and vision of the college. The college should use different motivation strategies to motivate both teachers and student. Trainees need to take action against the reluctance to be responsible for their training in each of their field of study.

### Conclusion

As document analyses indicate, around 30% of TVET learner fail on COC exam in the last four consecutive academic year. The evidence for this also supported by respondents as due to institutional factors such as inadequacy of library service like reference book, modules, lack of adequate training materials, web access, absence of life skill training, inadequacy of guidance and counseling service provision and infrastructure are one impeding factors on the intended achievements in learners' knowledge, skill attitude development. In addition, sister organization participation /industry /linkage in the training process was another factor for trainees' poor academic performance in Boditi industrial and construction college. Moreover, lack of commitment among learners towards program for successful completion with required knowledge skill and attitude, low efforts to do given project assignment and other practical tasks. On the other hand, low commitment of some instructors, and institutional weak attention to discharge their roles in networking with sister organization. Therefore, the combination of institutional, learner and instructor related factor contributing negatively to trainees' poor academic performance as well as impeded smooth achievement of trainees desired TVET program in the college. This point out that that there should be something done in Boditi industrial and construction college for learners' knowledge, skill attitude development in world workforce requirement manner

### Reference

1. Abebe, A. (2010). Influences of individual and contextual factors on improving the professional development of TVET teachers in Ethiopia, PhD Dissertation, Technical University of Kaiserslautern, Germany.
2. Adetoro, J. A. (2012). Determinants and strategies for quality assurance in Nigeria University education. Retrieved October 30, 2013, from <http://www.herp-net.org>
3. African union (2007). Strategy to revitalize technical vocational Education and Training (TVET): Addis Ababa, Ethiopia
4. African union (2011). Strategy to revitalize technical vocational Education and Training TVET): Addis Ababa, Ethiopia
5. African Union Commission (AUC, 2007,) Continental Strategy For Technical and vocational education and training (TVET)To foster Youth employment
6. Asian development bank (2009) Good practice of technical vocational education and training; Philippines
7. Bran Tadesse. (2013). entire feature of Ethiopia TVET system Addis Ababa: Ethiopia
8. Bennell, P. (2005) 'Learning to Change: Skills development among the economically vulnerable and socially excluded in developing countries. Employment and Training Papers, ILO
9. Carlson, W. (1999). Domains of teacher knowledge. In Gess-Newsome, J. & Lederman, N.G. (Eds.), Examining pedagogical content knowledge: The construct and its implications for science education. Netherlands: Kluwer Academic Publishers.
10. Creswell, J. and Plano Clark, V. (2007) Designing and Conducting mixed methods  
a. Research. New Delhi: Sage Publication Inc
11. Castro, Claudio de Moura. April 2008. Is Training in Developing Countries Different from Training in Developed Countries? Supplement to UNESCO-UNEVOC Bulletin 14.  
[www.unevoc.unesco.org/fileadmin/user\\_upload/pubs/bulletin/Forum](http://www.unevoc.unesco.org/fileadmin/user_upload/pubs/bulletin/Forum)
12. ETP (1994). Federal Democratic Republic of Ethiopia: Education and Training Policy. Addis Ababa: MoE
13. Fuller, B. (1985). Raising School Quality in Developing Countries: What Investments Boost Learning. Education and Training Series, Discussion Paper No 07.01, World Bank, Washington DC. 93pp
14. Histrich R.D. (2002). Self-employment new venture creation 5<sup>th</sup>.edition.tatamc GRAW HILL, new Delhi
15. Hornby, A. S. (2006). Oxford Advanced Learners Dictionary (7th eds). Edited by Sally Wehmeier, Colin McIntosh, Joanna Turnbull and Michael Ashby, Oxford University Press, Oxford.1715pp.
16. Getachew .H (2016) Competence-Based Technical-Vocational Education and Training (TVET) In Ethiopia, Wageningen University, Wageningen
17. International Lobar Organization (2015) Integrating core work skills into TVET systems six country case studies / Laura Brewer, Paul Comyn;
18. International Labour Office (ILO). 2010. A skilled workforce for strong, sustainable and balanced growth: A G20 training strategy (Geneva

19. Loughran, J., Mulhall, P., & Berry, A. (2004). In search of pedagogical content knowledge in science: Developing ways of articulating and documenting professional practice. *Journal of Research in Science Teaching*.
20. Kamau, S.M. (2013) Challenges affecting the technical and vocational education training youth polytechnics in Kiambu County. *International Journal of Social Sciences and Entrepreneurship*, 1 (5), 679-687.
21. Krishna, P. and Shaorshadze, I. (2012.): Technical and vocational education and training in Ethiopia, paper for the international growth center- Ethiopia country program (International Growth Center Working Paper). London:
22. Messay M. and Teferi M (2016) Implementation of Technical and Vocational Training Strategy in Agricultural Sector in Ethiopia: Practices, Challenges and the Way forward
23. Ministry of Education (2003). Ethiopian Technical and Vocational Education and Training Qualification System. Addis Ababa: Ministry o Education.
24. Ministry of education (2006) Education and training policy: Addis Ababa
25. Ministry of education. (2008). National TVET strategy: Addis Ababa
26. MOE (2010), Occupational Assessment and Certification: Manual for Center of Competence, a. Federal Democratic Republic of Ethiopia, Ministry of Education, Addis Ababa.
27. Ministry Of Education (2008). National Technical and Vocational Education and Training Strategy 2<sup>nd</sup> Edition. Addis Ababa: MoE
28. Ministry Of E (2005). Education sector development program III (ESDP III -2005-2010, Addis Ababa: MOE
29. Moustafa. M (2014) Technical and Vocational Education and Training (TVET) a. Challenges and Priorities in Developing Countries.
30. Ogunniyi, M. B. (1983). Analysis of equipment activities in selected Nigerian secondary schools. *European Journal and Science Education* 5: (2): 52 –58.
31. Oni, J. O. (1992). Resource and Resource Utilization as Correlates of School Academic Performance. University of Ibadan, Nigeria. 415pp
32. Organization for Economic & Co-operation Development (OECD).(2006). Policy framework for investment. A review of good practices. Paris:
33. UNIESCEF, (2010). International working group on education
34. UNESCO (2000), “The Dakar framework for action-education for all: meeting our collective a. commitments”, World Education Forum, Dakar, 26-28 April.
35. UNDP (2015). Human Development Report 2015. Briefing note for countries on the 2015 Human Development Report Available at: <http://hdr.undp.org/sites/.pdf>
36. UNESCO (2010). Technical and vocational education and training a vision for 21<sup>st</sup> century
37. UNESCO (2016) Youth, Literacy and Skills Development/ UNEVOC Education Sector
38. UNESCO and ILO Recommendations. Retrieved July 20, 2012, from <http://www.google.com.ng>
39. Uwaifo, V.O. (2009), “Technical Education and its Challenges in Nigeria in the 21st Century. *International NGO Journal* Vol 5, (Pp. 40-44).
40. Van Heerden, E. (2005). Life Skills: My journey, my destiny. Pretoria: Van Schaik Publishers
41. World Bank. (2009). Towards the Competitive Frontier: Strategies for Improving Ethiopia's Investment Climate. Report No. 48472-ET. Financial and Private Sector Development Unit, Africa Region, World Bank, Washington DC.
42. Yusuf.S (2015) Research Consortium on Education and Peace building Amsterdam Institute for Social Science Research (AISSR), University of Amsterdam
43. Zelvys, R. (2004). Challenges in quality assurance system and theoretical models in education management. Oslo: Eli Publication.