

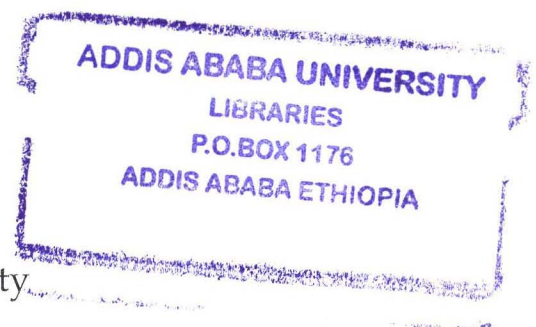
# Teaching - Learning Approaches in the Ethiopian Defense Command and Staff College: Challenges and Prospects

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A Thesis Submitted to  
Institute of Educational Research



Presented in Partial Fulfillment of the Requirements for the  
Degree of Master of Arts (Educational Research and Development)



Addis Ababa University

Addis Ababa, Ethiopia

June 2012

**Addis Ababa University**  
**School of Graduate Studies**

This is to certify that the thesis prepared by Araya Teweldemedhn, entitled: *Teaching-Learning Approaches in the Ethiopian Defense Command and Staff College: Challenges and prospects* and submitted in partial fulfillment of the requirements for the Degree of Master of Arts (Educational Research and Development) complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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## ABSTRACT

### Teaching - Learning Approaches in the Ethiopian Defense Command and Staff College: Challenges and Prospects

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The main purpose of this study was examining the extent to which teachers and students of Ethiopian Defense Command and Staff College adopt effective teaching-learning approaches. The study applied mixed design approaches. The study made use of questionnaire, interview and document assessment as tools for data collection. The data were collected from 16 (94%) of the teachers, 142 (94%) of the students, 3 commandants of the college and 3 general officers. The data were analyzed with correlation, multiple regression analysis, and comparison between groups was made using independent-sample t-test and ANOVA. Teachers' approaches to teaching and good practice of teaching were related significantly. Similarly, the correlation between students' perception of learning environment and the approaches to learning showed a significant relationship. Beside this, The students grade point average was significantly and positively correlated with deep approach  $r=.43$ ,  $p<0.01$  and positively correlated with perception to learning environment  $r=.30$ ,  $p<0.01$ , in the same way, positively correlated with effective learning approach  $r=.32$ ,  $p<0.01$ . This implies that, those students who gained deep approach learning perceive learning environment and effective learning as supportive of their learning and in achieving high levels of GPA. On the other hand, the grade point average was small and negatively correlated with surface approach  $r= -.05$ ,  $p<0.01$ . This indicates that, slightly the students who were less supportive of their learning experience earned lower grade point average. The teacher respondents' background is presented in different categories, there is a difference between joint operation 37.5% and strategy studies 12.5 %. Moreover, the educational levels of teachers were difference in between BA/BSc 87.5 % and MA/MSc 12.5%. Similarly, there is a difference in teaching experience in between <2 years 25% and 6-10 years 50% and there is a difference in workload in between <6 crhr 12.5% and 13-18 crhr 75%. With this respect, the diiferent category indicates that, there will be negatively influence in the teaching learning process. The students' background indicates that there are different categories that is, a difference in between educational level Diploma 85.5% and BA/BSc 15.5%. And a difference in GPA in between 2.1-2.80 57.7% and 3.56-4.00 9.9%. These different categories of the students may contribute to create negatively influence in the teaching-learning processes. This implies that, to sustain the prospects and to solve the challenges of teaching- learning, the commandants, teachers, and students of the college should be contribute their responsibilities.

## ACKNOWLEDGEMENTS

My heartfelt gratitude goes to my advisor Dr. Firdissa Jebessa for his valuable remarks and unreserved support through out the course of this study. Particularly, the constructive comments and criticisms that have been given by reading critically all the paper and making them ready for me to make all the necessary improvement on time, are the best qualities in my advisor`s personality that I always appreciate.

I also wish to extend my thanks to Addis Ababa University, Office of the Vice President for Research and Dean of Graduate Program for providing financial support that was indispensable for the successful accomplishment of this study.

I also forward my thanks to all commandants, teachers, students and staff of Ethiopian Defense Command and Staff College for their participation in the study and provision of data.

I would like to express my deep gratitude to Colonel Meshesha G/Micael Commandant of the Ethiopian Combined Army College, whose kindness allowed and assisted me for learn success; and all the Armor-Mechanize Tactic Department Instructors, and all my Colleagues for all their support me to finalize this study.

I also wish my special thanks to Colonel Mebrahtu W/Aregay, L. Colonel G/Medhin G/Meskel, L. Colonel Negasie Goitom, L. Colonel Zbelo Tezera with his family, and Ato Selemon Teka for all their contributing to complete my paper.

Finally, my gratitude also goes to my family, my son Biniam Araya and my son Abush Araya , and my father T/ Weldemedhn Ambaye and my mother Meselesh G/Mariam and all my brothers and my sisters for the helping me in the accomplishment of my study.

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## ACRONYMS

ANOVA	Analysis Of Variance
ATI	Approach to Teaching Inventory
BMG	British Military Group
CC/SC	Conceptual Change/Student-Centered
CEQ	Course Experience Questionnaire
DUC	Defense University College
EDCSC	Ethiopian Defense Command and Staff College
ELA	Effective Learning Approaches
ETA	Effective Teaching Approaches
ETS	Educational Testing System
GPA	Grade Point Average
GPT	Good Practice of Teaching
JPME	Joint Professional Military Education
MoND	Ministry of National Defense
PMAC	Professional Military Administrative Council
PPMC	Pearson Product Moment Correlation
R-SPQ-2F	Revised Study Process Questionnaire of the Factor
TC	Teacher-Centered
USNMS	United State National Military Strategy

## CHAPTER ONE. INTRODUCTION

### 1.1. Background of the Study

Traditionally, education was the responsibility of religious leaders and institutions, with most learning centered on one-on-one tutorials in their teaching approaches. The first formal schools were opened in 1924s and served as Qur'anic schools. During the 1930s basic primary schools that concentrated on teaching Dhivehi literacy and the rudiments of arithmetic in addition to the Qur'an were introduced on several islands. Many of these schools consisted of one-room structures constructed of coral and lime and roofed with thatch. They were extremely basic in every respect the education received by the average child until the 1950s. The handful of affluent families in Male sent their children abroad, mainly to neighbouring Sri Lanka or India, and occasionally to Egypt. Sporadic opportunities for further education abroad also arose through international aid agencies and the assistance of foreign governments. (Education for All, 2000).

Today, it is quite clear that education is very important in any activities. It enables us to communicate and deal with our environment. In this regard, it needs well qualified and organized means of delivery. To this end, the concept of education is more fundamentally depend upon teaching learning approaches. According to American Educational Research Association Commission in Handbook of Research on Teaching learning 1962 (as cited in Aggarwal, 1998:16) teaching is a form of interpersonal influence aimed at changing the behaviour potential of another person. Similarly Amidon and Hunter 1967, (in Aggarwal, 1998) states that, teaching is an interactive process, primarily involving classroom talk, which takes place between teacher and pupils and occurs during certain definable activities.

The type of teaching mentioned Aggarwal (1998:17) is reduced to what the teacher does. There is interaction but the flow of instruction is from the teacher. In these types of teaching, the learners may become passive listeners. John Brubacher 1939 (as cited in Aggarwal,1998:16) the definition of teaching assigns more place to the learner. This approach tends to be child or learner-centered.

B.O. Smith 1963 (as cited in Aggarwal, 1998:16) Smith seems to be more pragmatic in his approach to teaching. He accepts certain limitations of the learner in the teaching- learning process.

His definition contains the following three elements: a) Teaching is a system of action; b) Teaching is a goal-directed action; and c) Teaching takes place in a situation comprising the controllable and uncontrollable set of factors.

Teaching needs to be purposeful and it is important from both the teachers' and the learners' perspectives. Teaching is more than an array of strategies and skills to be called upon or changed from lesson to lesson or day to day activities. Teaching is the use of appropriate methods designed to encourage learning. Pedagogy of teaching should not be something that is changed or selected in order to break-up the normal routine activities. Teaching strategies should be carefully selected for the learning, it can provide for the content being studied (Loughran, 1997).

There may not be single definition for what effective teaching is, but scholars agree on the idea of active engagement of students in the teaching learning process and teachers' effort to promote their learning leads to effective teaching. " effective teaching is about bringing effective and meaningful students learning" ( Hativa, 2000:6). Similarly, Ramdsen (1992:87) viewed good teaching as "striving continually to learn about students understanding and the effect of teaching on it". Therefore, teaching should stimulate students' curiosity and active learning, encouraging students' analytical, logical and creative thinking, and increase both desire and capacity for future learning.

The effectiveness of the teaching learning in higher education is of considerable interest to students, teaching staff, researchers, employers and society as the whole. Students must pass through effective teaching in order to serve the society as intended. This becomes real when the teaching learning process is monitored and improved. The teaching - learning process in higher education needs to encourage the students to actively participate in the process. Biggs (1996) and (2003), Ramdsen (1992) and (2003) and Kember (1996) have forwarded their view about the contribution students' involvement in their

learning on their actual performance. This views lie on the assumption that students will learn more when they, actively participate in the teaching learning process and when they have given guidance and feedback by their teachers.

According to the Ministry of National Defense educational institutions, the MoND is given attention to build human capacity through education and training. In such away, that it was structured education for military officers at different levels (DUC, 2007).

From the MoND educational institutions, the Ethiopian Defense Command and Staff College was established in 2006. It emphasizes the capacity building of higher officers in achieving institutional capabilities and therefore, the need to develop higher officers capacity whose attitudes and behaviour are likely to be congruent with what military science and leadership believes to be appropriate and conducive to success.

The major needs of the Ministry of National Defense are the following: a) Develop Capacity Building Centers, Enabling to prepare Competent Human Recourse for the Current and Future Mission b) Produce democratically thinking, Competent, Mission Oriented and Professional manpower. (This implies that the expectation of MoND from EDCSC is providing Professional higher officers with democratic outlook, behavior and Mission oriented c) Establish Standardized Institutions, which are able to cope with the Development of Current Situation and Dynamism (DUC,2007:45).

**Objectives of the Ministry of Defense.** The government of FDRE has established the vision and mission or duties of the Ministry of Defense in proclamation No. 27/1996 E.C. and hence, the Ministry of Defense also initiated the following objectives based on the mission that the Ministry of Defense are supposed to accomplish;

1. Develop a capacity that helps to undertake responsibility and combat effectively.
2. To be effective in executing functions, develop scientific and democratic operational philosophy.

3. Develop the team work culture in the organization.
4. Create convenient organizational culture that assures operational readiness so as to secure the country from any possible risk.
5. Develop scientific knowledge to predict institutional scenario that helps to get first position which enables to undertake responsibility in a better way.

**Objectives of the FDRE-DCSC.** The objectives of the FDRE-DCSC are to create:

- a) Military professionals who are equipped with specific knowledge, skill, attitude, and behavior which would enable them to think critically and accomplish their mission successfully during war and peace time;
- b) Higher tactical level commander who can efficiently execute joint internal security operation, and regional and international missions;
- c) Efficient higher tactical level commanders, who can train their units, sustain the created combat capabilities, maintain their combat and permanent readiness and execute their task successfully utilizing minimum resources;
- d) Officers and Qualified instructors who are equipped with the necessary skill needed to carry out scientific research to ensure high standard college performance in all aspects; and
- e) Reachable, Participative and Justifiable education management system and also simple, fair and accessible service system (EDCSC,2008).

## **1.2. Statement of the Problem**

The Ministry of National Defense needs educated and capable military leaders to play its role in ensuring the nation`s endeavors of rapid economic development, peace and the democratization process. This becomes true when higher military educations prepare students (higher officers) who are well equipped with knowledge, skill and attitude. Mere knowing of facts or principles in their learning may not enable them to perform their activities as intended. Therefore, students of higher education should be encourage to focus on “understanding in their learning” and they have to have the ability to apply it in different context at their work place (EDCSC,2008:18).

Therefore, the approaches adopted by students in their learning influences their achievement. According to Toohey in Daniel (2004:68) “students gain

understanding when they have motive to adopt a deep approach learning". On the other hand, students adopting a surface approach are primarily interested in meeting the demands for showing passing grades. Since, students are expected to solve the societies` problem under different context, they need to have understanding on the nature of that particular issue, rather than more knowing of facts or principles.

According to Walker (2006:23), Understanding is more significant than to know what. Therefore, to learn how to explain things or events is to be able to grasp the principles which underlie and make sense of their working, and thus to enable us to recognize their occurrence on some future occasion even though the surface characteristics appear to be different. The context of the environment in which students learn, highly determines which approach of learning to adopt.

The way of teaching activities by teaching staffs, will create different learning environment for students in the learning process. Therefore, to develop effective teaching and learning teachers and students should focus on the effectiveness of teaching learning approaches. This is highly related with teachers approach to teaching (conception and actual practice of teaching) and students learning approach. All the above key issues show that, teachers and students are very important to determine the effectiveness of the teaching - learning process by adopting good practice of teaching approach in their learning.

To confirm this, the role teachers play in creating a conducive environment for students learning, integrating the teaching learning process, promoting students learning and the like are described through the approach they adopt. In addition to that, students must play their role in devoting their time for learning through active involvement in the process.

Military education and training approach becomes more effective, if it focuses on the practical exercises and growth the existing knowledge to build a learners` experience and achieving effective teaching learning approaches. All the students, who join to the college are higher officers and experienced in

commanding higher and lower tactical level units and Knowledgeable administering resources and other inputs of military profession on their level. Hence, they can develop the teaching learning activities, if the teaching approach is student-centered instead of teacher-centered. However, if the college applies the teachers as the central authorized figure in the classroom, the method does not provide independent practice to students. As a result, students can not extensively participate in the teaching learning approaches as much as their experiences.

Through understanding of these concepts, the researcher has a doubt that the teaching approach in Ethiopian Defense Command and staff College seems more of teacher-centered. The researcher had informal discussions with his colleagues that instructors focus to cover the course within the given time while students are playing a due attention to score high marks on the exam regardless of the detail understanding or learning. This kind of teaching learning approach contributes to become less results for effective teaching learning approach in the college. This calls for assessing the way the Ethiopian Defense Command and Staff College teachers teach their students and how students learn. Therefore, examining the approach adopted by Ethiopian Defense Command and Staff College teachers and students in the teaching learning process is the concern of this study. By doing this, the researcher tries to answer the following research questions.

1. To what extent the objectives of the Ministry of Defense are implemented in the teaching learning approaches in the College?
2. How effective are the teachers in bringing good practice of teaching approaches in the College?
3. What styles (approaches) of learning do students use in the College?
4. How do students perceive the learning environment of their Colleges?
5. What factors affect the effectiveness of teaching learning approaches at the College?

### **1.3. Objectives of the Study**

The overall objective of the study was to assess the teaching - learning approaches employed by teachers` in the Ethiopian Defense Command and Staff College. Particularly the study intends to:

1. identify the approach adopted by teachers and students in the teaching learning process at the college.
2. examine the student activities on the context of learning environment of their college.
3. assess the level of teachers effectiveness in ensuring good practice of teaching in the College.
4. identify the factors that may influence the teaching learning process at the College.

### **1.4. Significance of the Study**

As this study deals with examining the practice of teaching learning process based on the given approach becomes a reference point to different higher military colleges. Specifically, the study is significant to:

1. serve as a departure to conduct further study to military researchers at the area of higher military Colleges.
2. reveal to the college society about the dominant approaches adopted by teachers and students in the teaching learning process.
3. encourage the promotion of effective teaching approaches in the future task of army leaders.
4. it help the higher military leaders as additional information sources document for the process of implementing and introducing the effective teaching approaches with the context of higher military colleges.

5. recommend the teachers and students to take correction measure to improve the teaching learning process in the college.

### **1.5. Delimitation of the Study**

The study has been conducted only on the regular (BA) degree students' teaching learning approach. Especially, whether the higher officers have developed strong military knowledge in the teaching learning approach in the college and whether they look psychological attachment to the current military science and leadership. Similarly, the study duly emphasizes on the teaching approaches adopted in the college respectively and their challenges in the adoption of effective teaching learning process in the college. The study has not been looked the teaching learning approaches of the short course trainee higher officers in the college. The study was concerned on three batches namely Batch Two, Batch Five and Batch Six. Because, those batches are learnt using different curricula. The different curricula was not looked in the study. Because, the study was looked based on the teaching learning approaches only. Batch One, Batch Three, and Batch Four were not included in the study. So These above points investigated only based on the teaching approaches in the College.

### **1.6. Limitation of the Study**

The researcher has tried to include participants who have been categorized on the variables treated in the study from the three batches with appropriate sampling techniques. Then, the study was conducted based on assessed documents of the college and focused on the teachers, students, commandants of the college, and selected General officers' opinion through questionnaires and interviews. But on the other hand, there were some limitations, the researcher did not have a chance to check participants' response regarding the extent to which they practice the particular approach in the classroom setting through direct observation. Because, the researcher has been faced shortage of time in order to check all-round teachers and students activity in the teaching learning process in the college.

The major limitation that the researcher confronted while conducting this research was getting some data of the EDCSC working documents about the objectives, rules and procedures, teaching-learning reports to see its recent status of EDCSC. However, there were no recorded files found. Consequently, the researcher was compelled to look the required data from different documents. Since the study focused on only to EDCSC the results obtained could not be fully generalized to all MOND colleges and training centers in the country.

### 1.7. Operational Definitions of Key Terms

**Approach:** refers to the strategy or way that teachers use to teach and students use to learn in the teaching - learning processes.

**Commandant:** an officer command of military unit and a combination of units contained more than one division.

**Deep approach:** An approach which comes from a felt need to engage the task appropriately and meaningfully, so that the student tries to use the most appropriate cognitive activities for handling it.

**General officers:** refers to an army rank considered as top leaders of the army including a rank of Brigadier Generals, Major Generals, lieutenant Generals, and full Generals.

**Head office:** refers to the responsibility areas where assigned for military operations organized under the Ministry of Defense and headed by chief of staff and led by senior General officer.

**Higher officers:** refers to an army rank considered as middle and strategic leaders of the army including a rank of Major, lieutenant colonel, and full colonel.

**Organization:** refers for this research as a legally established institution by the Ministry of Defense establishing proclamation No 27/87 and amended by proclamation No 27/96, As Federal Democratic Republic of Ethiopia Ministry of Defense for the purpose of safeguarding the Ethiopian constitution and its

sovereignty from any aggressions that incorporates all the peoples, nations and nationalities in balanced way.

**Student centered:** a student centered approach with the intention and strategy of helping students to develop their understanding about their world through active engagement.

**Surface approach:** An approach to learning that comes from the intention to get the task out of the way with minimum trouble while appearing to meet course requirements.

**Teacher centered:** a teachers centered approach with the intention and strategy of transmitting information for students.

### **1.8. Organization of the Study**

The study has been organized under five main chapters. The first Chapter deals with the background of the study. Chapter two deals with the review of related literature. Chapter three presents the research design and methodology respectively. Chapter four deals, presentation and analysis of the data. The last Chapter presents summary, conclusions and recommendations of the study.

## CHAPTER TWO. REVIEW OF RELATED LITERATURE.

### 2.1. Higher Educations and its Purposes

Higher education institutions are very important places where graduates of all kind can be obtained/produced. Education all over the world is still looked up on as a harbinger of all other changes; social, cultural, economic, scientific and technical (Rao,2003). According to Ramdsen (2003:29) "in knowledge based economies, govenments see univerities as engines for social change and the expansion of prosperity". Similarly, Rao (2003) indicates that institutions of higher education have the main responsibility for equipping individuals with the advanced knowledge and skills required for positions of responsibility in government, business and the profession.

Professional development is the product of teaching learning continuum that comprises training, experience, education, and self-improvement. Whereas, Professional military education provides the education needed to complement training, experience, and self-improvement to produce the most professionally competent (strategic-minded, critical-thinking) individual possible. In its broadest conception, education conveys general bodies of knowledge and develops habits of mind applicable to a broad spectrum of endeavors. As viewed through the prism of "Learning Domains", education is largely defined through the cognitive domain and fosters breadth of view, diverse perspectives, critical analysis, abstract reasoning, comfort with ambiguity and uncertainty, and innovative thinking, particularly with respect to complex, non-linear problems. This contrasts with training, which focuses largely through the psychomotor domain on the instruction of personnel to enhance their capacity to perform specific functions and tasks. Learning which addresses attitudinal understandings of joint matters is focused through the affective domain. Training and education are not mutually exclusive. Virtually all military schools and professional development programs include elements of both education and training in their academic programs. Achieving success across the joint learning continuum relies on close coordination of training and

education to develop synergies as personnel develop individually over time, acquiring and performing progressively higher skills and responsibilities as their careers advance. Opportunities for substantial professional education are relatively rare. Particularly, for the extended in-residence education that produces a synergy of learning that only come from daily, face-to-face interaction with fellow students and faculty. Consequently, the PME institutions should strive to provide as pure and effective education as feasible (DOD, 2008). Therefore, the role of higher education institutions are playing in the development of the country is clear. Currently, Ethiopia is also one of the rapidly growing African countries expanding these institutions to fill the gap that exists in the process of economic development.

## **2.2. Higher Military Educations and its Purposes in Ethiopia**

The modern institutional military trainings and higher military educations history was starting at the regime of Emperor Hailesilassie. Hailesilassie became a regent and heir to the throne in 1916 and emperor in 1930. He was the real creator of Ethiopia's standing armed forces. The emperor's ambition to reorganize the Ethiopian traditional army along a modern line started during the time when he was the governor of Harar. During his regency, Hailesilassie formed the Imperial bodyguard Unit Supported by foreign countries such as France, Belgium, Russia and Sweden (Pankhurst,1967). Ethiopia's modern military training and realization of institutional military academy had been associated with the history of nation building and preventing the nation from internal and external enemies. Like national education history, military training and education assisted by the foreign countries. The major security assistance offered during the cold war periods and after the decolonization of Africa, Ethiopia supported by economic and military assistance. In the name of commonwealth, African countries, for example, British former colonies assisted through commonwealth including political, administrative, economic, education and military institutions were indirectly aliened to them (Goldstein, 2005). Before his coronation of Emperor and military academies was established, there were a number of officers sent to abroad for training and

education, in 1917. Many officers from bodyguard unit sent to Kenya to be trained by the British forces in Kenya. Further, in the 1920s a number of Ethiopian officers sent to St Cry military academy in France (Pankhurst, 1967). In 1929, the Belgium military mission came to Ethiopia, for the first time, for training purpose of the Imperial bodyguard. In 1934, the Holeta (renamed Genet) military academy was establish under Swedish management. This motive emanated from Hailesilassie need to provide Ethiopia with a better military capacity (Markakis, 1974).

An important lesson that the Emperor recognized was from the defeat by Italian invasion forces. That is, there was the lack of modern tactical training system and use of modern weaponry. Therefore, he sought the need for moving to restructured Ministry of War (later ministry of defense) and replaced that traditional military system with standing modern army by proclamation No 68/1944. Then on, after liberation of the country from Italian Invasion in 1941, the treaty between the Emperor and British was made. British Military Group (BMG) then on, managed to train and equipped 'ten' infantry from 1944-1951 (Keegan, 1983:175).

The Holeta Military academy reopened by British Military Mission. Moreover, another military formation called "Territorial Army" organized by them, while the bodyguard retained a separate training facility managed by Swedish Military mission. The purpose of this quick military formation mission was to absorb and disarm the armed patriotic groups, which they disturbed the rural area immediately after the liberation of the country, and emperor's return from exile (Blank, 1968). However, the main objectives of building modern and strong armed forces in his majesty, was crucial in preventing the country's territorial integrity and its sovereignty.

### **2.2.1. Recruitment and Social aspect for Incursions**

Secular higher education was initiated only in 1950 with the founding of the University College of Addis Ababa. During the following two decades, half a dozen specialized technical colleges were established. These institutions hosted an educational culture that was heavily influenced by its long informal

association with the Orthodox Church that was some foreign countries mainly, American and less British than higher education systems in the former British colonies of East Africa. These modern colleges helped the Emperor for establishing modern military forces. Recruitment for professional officer's education and training was as part of Emperor's attempt to establish strong regular army. The first candidates of Holeta, formerly 'Genet Military Staff College' were drawn from the school called "Tafari Mekkonen". Thus, these educated ones were Senior Officers during the post war period; while Imperial-bodyguards were well trained and equipped than those regular army (Markakis, 1974).

Similarly, 'Harar' graduates benefit from being soldiers of the emperor Markakis, 1974; Bynham, Simon and Snailham, 1983. After the Harar- Military Academy established, in 1958, recruitment was conducted from high school graduates, and first year students of Hailesilassie 1<sup>st</sup> University College. The wartime patriots also joined this Academic Institution, and were given middle level military ranks.

### **2.2.2. Military Training during the Military Regime**

The military government proclaimed Ethiopia as a socialist state in 1974 and 1977; by Colonel *Mengistu* Hailemiriam established full control of the Provisional Military Administrative Council (PMAC). Immediately after the downfall of H/selassie, Ethiopia involved in building one of the largest army in Africa. Because Derg inherited from Emperor a well structured, trained, and disciplined armed forces with the superior chair of command (Markakis, 1974: 253).

In 1974, a socialist military coup overthrew the monarchy of Emperor Haile Selassie and established an oppressive regime known as the "Derg" (that is committee). Government intervention in university affairs expanded, including security surveillance, repression of dissent, mandated courses on Marxism, prohibition of student organizations, appointment of senior university officers, and control of academic promotions. Three notable outcomes ensued over the following two decades.

Intellectual life atrophied on campuses, academic brain drain soared, and the country's education system became largely isolated from the western world.

At the military regime, junior officer's course was given at "Holeta Genet" From 1990-1991; and senior officers at "Bella", Addis - Ababa from 1988 until Mengistu fled to abroad. He assisted by socialist ideologies such as Soviet, East German and Cuban advisors.

As he wished to produce larger number of officers in number, the quality was parallel deviated. Another reason can be noted also that Mnegistu's military regime used forced recruitment for training of officers.

Likewise, the purpose of the military, training policy and doctrine was carried out as the consequences of foreign political and security assistance in Ethiopia. For instance during the military regime, Soviets and Cubans were dominating all activities of Defense policy, training and education of senior military officers. Even these countries fought against Somalia in favor of Colonel Mengistu's political acceptance of them for his political game Munnno, (Bynham, Simon & Snailham, 1983).

**2.2.3. Now, the Purpose of the MoND** is focused on the military capacity building through college graduated education fosters the national interest following the strategic policy directions and guidance issued. In addition, those colleges have been playing their role in producing competent and loyal officers and professionals needed by the institutional mission (DUC, 2007). The Ethiopian Government National Foreign and Security Policy issued in 2002 stated three major policy directions. This policy document out lined three base lines how the national security policy has been focused and including the strategies for its implementation. The main purpose of this policy strategy has out lined the three goal points and in that, the military would play its role in fostering the policy implementation (MOI, 2002). These three points are presented as follows:

- 1. The need to Rapid National Economic Development and the building of democratization process and thus democracy as a primary source of the policy*

That is assurance of national integrity. Ethiopia's basic national interest is the need to rapid development of the nation in reducing poverty, disease and backwardness and that should benefit to citizen equally. Besides building the democratic institutions, issuing the affairs of rights and good governance are instruments that can create the peaceful situations where the public can achieve its objectives peacefully.

### *2. The need to National integrity and Honor*

Poverty and backwardness; lack of good governance and democracy; are causes of vulnerability or dangers that are obstacle to creating a sense of mutual respect among citizens, unity and strength for national development consensus. Therefore, the policy goal is to avoid these national integrity threats to ensuring national security, development and peace.

### *3. Globalization as the source of the policy*

Economic security, food security, human security, peace and stability have come to be the global issues that need international partnership and cooperation with the world. Therefore, this policy framework underlined the main implementing strategies to ensuring the above three baseline sources of security policy aimed to tackle problems of internal and external security threats, which are obstacle to Ethiopia's development.

The process of teaching - learning in higher military education is generally guided by accepted civilian accreditation standards and practices tailored to the needs of JPME. Colleges/schools teaching JPME differ from civilian universities in at least two significant ways.

- Underlying Theme of the Subject Matter: JPME addresses the diplomatic, economic, military and informational dimensions of national security, with special emphasis on planning and conducting activities throughout the range of military operations.
- Learning Environment: Colleges/schools conducting JPME bring together a faculty and student body of professional military officers and civilian government officials who have significant experience in the major disciplines taught at the colleges.

In addition, these colleges/schools have access to and use classified information and wargaming facilities not available to civilian universities (USNMS, 2004).

### **2.3. Teaching - Learning in Higher Education**

Having the concept of education from broad perspective, we can look the teaching -learning process as one strand of the issue. Therefore, to contribute for the assurance educated people, the effective teaching learning process must be ensured. According to Devlin (2007) increasing attention is being given to the effective teaching learning at university level across the world to ensure the educated people.

There is an increasing demand both to secure effective teaching in universities and to be able to demonstrate that effectiveness. This increasing emphasis on effective teaching and learning has placed new demands on methodologies which are promising for the participation of students in the teaching learning process.

Ashcroft (2004) in her article of the expansion of higher education, recommended the Ethiopian teachers to make a change to the philosophy of teaching to permit more student centered learning relying much less on direct instructor input.

#### **2.3.1. Teaching - Learning Processes**

A strong pedagogy necessitates the study of teaching methods, which includes the study of specific ways in which teaching goals may be achieved. One of the most common goals of teaching is to develop critical thinking skills in students (Halpern, 1999). The higher-level thinking is what allows students to excel and achieve intellectual freedom. Thinking is the cognitive process used to make sense of the world; questioning everyday assumptions will direct students to new solutions that can positively influence the quality of their lives. According to Lunney, Frederickson, Spark, and McDuffie (2008), "thinking processes can be improved through teaching, coaching, and practice, so specific educational

strategies can be use in online courses to facilitate students' critical thinking processes" (p. 87).

The authors have developed and proposed the following five-step Process for the Development of Higher Level Thinking Skill that can be implemented virtually in any teaching setting (including online) to create a more active learning environment and to move learners toward higher level thinking.

***Step 1: Considering the importance of a course***

Its placement in a program and its role in providing a base of knowledge, a teacher should carefully identify key learning objectives that recognize what students should know when they end the course. To make critical thinking happen, these learning objectives, as well as the activities and assessments must require students to perform and demonstrate higher-level thinking. Thus, a well-written lesson plan should target a specific behavior, introduce and practice the desired behavior, and end with the learner exhibition of the behavioral response.

The development of well-written objectives will greatly accelerate a learner's movement into higher level thinking (Ball & Garton, 2005).

***Step 2: Questioning as a vital part of the teaching learning process***

The art of questioning begins with establishing what is known and allows the teacher to extend beyond to develop new ideas and understandings.

Although many strategies exist that could affect student thinking, teacher questions have the greatest impact. They went in to indicate that the level of student thinking is directly proportional to the level of questions asked. When teachers plan, they must consider the purpose of each question and then develop the appropriate level and type of question to accomplish the purpose. All students need experience with higher level questioning once they become familiar with a concept (Clasen & Bonk, 1990).

***Step 3: To make learning more active***

Teachers need to add experiential learning and opportunities for reflective dialog.

For students to participate in higher-level thinking, they must pose arguments, state opinions, and critique evidence using primary and secondary sources.

Practice is necessary to master any skill; students must have the opportunity to practice the knowledge, skills, attitudes, and behaviors that will be evaluate.

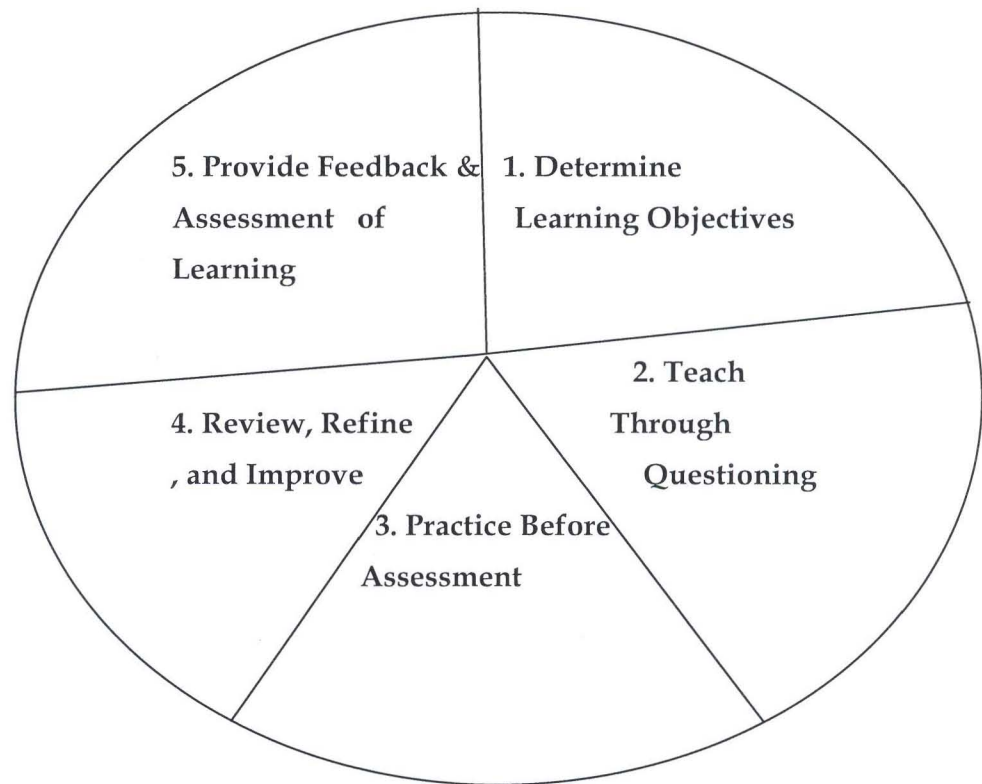
Therefore, choosing learning activities that allow them to practice, while causing them critically think, is important (Schafersman, 1991).

***Step 4: Teachers should strive continually to refine their courses***

To ensure that instructional techniques are in fact moving students toward critical thinking. Students become responsible for their own learning when teachers monitor class activities, create a supportive environment, and carefully track student participation. Collecting feedback from students about what they have, or have not learned, may present the need to offer opportunities for re-learning and expose areas in need of improvement (Schafersman, 1991).

***Step 5. Feedback***

Like assessment, compares criteria and standards to student performance in an effort to evaluate the quality of work. Prior to providing opportunities, to practice what is to be assess, students must first understand the standards by which they will be assessed. Next, the teacher and peers should provide students with constructive and relevant feedback, as well as assessing their own performance. Student feedback and assessment provides an immediate and significant source of information for the outcomes based assessment process in evaluating instructional techniques, student achievement, specific learning activities, the course, departmental program, and/or curriculum (KO, 2004: 101).



**Figure 1.** Process for the Development of Higher-Level Thinking Skills (Schafersman, 1991: 98).

The successful implementation of the *Process for the Development of Higher Level Thinking Skills* in the Teaching environment requires the thoughtful consideration of current instructional techniques and the commitment to embrace changes and differences to flourish in an active, student-centered learning environment.

### **2.3.2. Theories of Teaching in Higher Education**

Teaching is the process of helping learners to think, not telling story. This is to indicate, teaching as the process serves to pave the way to student participation (Allene, 2009). Teaching should be based on a vision of a better world. To this end, we should alter our thinking as a teacher; we should not be thinking that, we are filling individual heads with knowledge but instead that, we are building social information community. This concept means that, we should be enabling people to become communication channels, not simply communication terminals.

Teachers have been taught how to prepare, organize and transmit material so that, student will understand it. There is not a right or wrong way to teach or to learn (Crawford, 1988).

Thinking about teaching as a process of changing students understanding in a general way is not sufficient to ensure that good teaching actually happens. Teaching always takes place within particular context, for instance, physics, writing, economics, and engineering departments. Ramdsen (2003) by putting results from different research on students approach to learning together; he described three generic ways of teaching in higher education, each of which has corresponding implications for how students are expected to learn include.

### **Teaching as telling or transmission**

many university teachers implicitly or explicitly define the task of teaching undergraduates as the transmission of authoritative content or the demonstration of procedures. The lecturer's role is seen as communicating knowledge smoothly, it is both necessary and sufficient that he or she should be an expert in the subject matter. The theory shows some affinities with the superficial engagement with content that typifies surface approach. This theory implies that all problem in teaching and learning reside out side the lecture, the program of study, or even the university. Fentsfermacher and Soltis (2004) regarded this kind of teaching as an " executive approach" to teaching by which teachers are viewed as a manager or complex classroom process, a person charged with bringing about certain out comes with students through using the best skills and techniques available. Carefully develop curriculum materials and methods of teaching backed by research are very important to this approach.

### **Teaching as organizing student activities**

In this case, the focus moves from the teacher towards the student. Lectures see teaching as a supervision process involving the articulation of techniques designed to ensure that students learn.

Teaching is seen no longer as being mainly about telling or transmission; it is also about dealing with student and above all about making them busy, using a set of efficient procedures to cover the ground.

Teaching learning techniques are, in this theory, a sufficient basis for improving teaching (Fentsfermacher & Soltis, 2004).

If we learn how to do something, it is assumed that learning how to reflect on what we do and apply our knowledge to new situations naturally follows.

Fentsfermacher and soltis (2004) call this as a “facilitator approach” by which it places a high value on what students bring to the classroom setting. Teachers in this approach are typically an emphathetic person who believes in helping individuals grow personally and reach a high level of self actualization and self understanding.

### **Teaching as making learning possible**

In this concepts of teaching, students and subject content to be learned are linked together by an over arching frameworks or systems. Teaching is comprehended as a process of working cooperatively with learners to help them change their understanding. Teaching involves finding out about students misunderstading, intervening to change them and creating a context of learning about encourages students to engage with the subject matter. Fentsfermacher and soltis (2004) consider this as a “ liberationist approach” by which teachers are viewed as a one who frees and opens the mind of the learner, initiating him or her in to human ways of knowing and assisting the learner in becoming a well rounded, knowledgeable and moral human beings.

### **2.3.3. Methods of Teaching**

Teaching by itself needs formal way of delivery. This is refered as method of teaching. Method of teaching develops the formal structure of the sequence of acts commonly shown by teaching or instructions. It covers both the strategy (a pattern of acts that serves to attain others) and tactics or the art or mode of teaching or instruction of teaching.

It involves the choice of what is to be taught at a given time, and the means by which it is to be taught. Teaching method is the rational ordering and balancing in the light of knowledge and purpose of the several elements that enter (Azeb, 1984).

Some writers differentiate teaching methods from techniques of teaching. For instance, Azeb (1984: 89) holds that, techniques of teaching indicate how well and effective the teacher applies and follows specific steps, producers, ways and manners in teaching or performing specific teaching acts. It also refers to details of specific elements of producers' required in teaching such as, specific ways of presenting instructional materials or conducting instructional activities. The difference between the teaching of geography and that of language arts, for instance is explained by the different techniques used (Azeb 1984: 89). In this regard, the teaching methods that teachers use to transmit knowledge to their learners can determine the level of education that, the students going to acquire at the end of the taught.

How can an instructor evaluate lecture presentation?

Quality of a lecture presentation can be evaluated using three formal techniques. The first is feedback from the students and typically involves asking students to complete an evaluation form. The second is a self-evaluation that uses a video recording. The third formal evaluation technique is involves the use of an observer. The most effective technique an educator can use to improve the quality of presentation skills is to critique a videotape of her/his lecture critique. When videotaping is feasible, it is strongly recommended that the educator periodically record lectures. Analyzing a video allows the educator to identify positive and negative behaviors and to set specific goals for improving the quality of lectures (Azeb 1984: 89).

#### **2.3.3.1. Traditional Methods of Teaching**

- **Lecture method**

Lecture method is a face to face approach where the teacher explains, elaborates, tells the facts, events and ideas to the students.

It refers as one-way of Information from the teacher to the student. It is verbal presentation about material to be learnt (Allene, 2009).

In lecture method of teaching the general format is one in which the student adopt a passive role as recipient of information that is, teacher is very active while students become passive recipients of information the basic function of the lecture is to present the information (Evans, 1998).

There are two types of lecture methods as modified (informal) and unmodified (formal) lecture (Allene, 2009). The unmodified lecture is a formal lecture where the teacher talks for the whole of a period without interruption and lecture is usually applied with students of higher education institutions rather than first and second cycle students. But in case of the modified (informal) lecture there are breaks in the middle of the lecture for the participation of the student.

- **Demonstration method**

This method of teaching carried out by demonstrating or showing some material phenomena, real to the learner. This method has a sensory impact. It is a visualized explanation of ideas. The method combines a verb of explanation with practical illustrative equipment or material. It develops both mental and motor skills observation, Participation and practical. There are two types of demonstration method. These are formal demonstration and informal demonstration (Allene, 2009).

In the case of formal demonstration all the explanations and demonstrations are done by the teacher /demonstrator/ and students are simple observers.

It is usually done when there are no sufficient materials or the material assumed to be dangerous for the students. But in informal demonstration students are made active participants individually or in-groups. The participation of the students depends on the availability of sufficient materials, the time required, and students' ability and skills in handling the equipments or materials in use. Informal demonstration method of teaching has the following steps; explanation by the teacher, demonstration by the teacher, students' performance/demonstration, teacher's supervision and evaluation of

the demonstration. From the above methods of teaching, we can see different types of methods of teaching. But we can conclude that, two methods of teaching is here. And also we can derive, the lecture method as a surface learning and the demonstration method as a deep learning (Allene, 2009).

#### **2.3.4. Approaches to Teaching**

In order to achieve the theories of teaching, scholars have developed different approaches to teaching. Approach to teaching is described from different studies using the same research perspective conducted with university teachers and qualitatively different approaches to teaching described on the continuum.

Scholars like (Cliff,1998;Muray & McDonald, 1997; Trigwell, Prosser & Ginns, 1996,2005) categorized teaching approach in to five ranging from a conceptual change/student centered (CC/SC) approach and information transmission/teacher centered (IT/TC) approach. They described each category as follows:

##### **Approach A. A teacher focused strategy, with the intention of transmitting information to students**

This approach is one in which the teacher adopts a teacher focused strategy, with the intention of transmitting to the students information about the discipline. In this transmission , the focus is on facts and skills, but not on the relationship between them.

##### **Approach B. A teacher focused strategy, which the intention of helping their students to acquire the concepts of the discipline**

This approach is one in which the teacher adopts a teacher focused strategy with intention of helping their students acquire the concepts of the discipline and the relationships between them. These teachers assume that their students can gain these concepts by telling their relationships between them.

**Approach C. A teacher and student intention strategy with the intention that students acquire the concepts of the discipline**

This approach is one in which the teacher adopts a student teachers intention strategy to help their students acquire the concepts of the discipline based concepts and relationships between them. Like approach A and B they have not seen to construct their own knowledge, but unlike approaches A and B they have seen to gain this disciplinary knowledge through actively engaging in the teaching learning process.

**Approach D. A student focused strategy aimed at students developing their conceptions**

This approach is one in which the teachers adopt, a student focused strategy to help students further develop the world view or conception they already adopt.

A student focused strategy is assumed to be necessary, because it is the students who have to construct their knowledge in order to further develop their conceptions.

**Approach E. A student focused strategy aimed at students changing their conceptions**

This approach is one in which the teachers adopt, a student focused strategy to help their students change their world views or conceptions of the phenomena they are studying. Like approach D, students are seen to have to construct their own knowledge, and so the teacher has focus on what the students are doing in the teaching learning situation. A student focused strategy is assumed to be necessary, because it is the students who have to re-construct their knowledge to produce a new world view or conceptions. The teacher understands that he/she cannot transmit a new world view or conception to the students.

Fentsfermacher and Soltis (2004) of the three approach to teaching (that is, the executive approach, the facilitator approach and the liberationist approach) have similar ideas with IT/TC and CC/SC discussed above and which are also

inline with the three theories of teaching in higher education by Ramdsen (1992).

Even though these scholars classified teaching approach in to different classifications, their concept lies on two different points that is, teacher-centered and student-centered approach. Trigwell and Prosser developers of the questionnaire (ATI), found information transmission intention and teacher focused strategy sub scales loaded as one factor, whereas conceptual change intention, student teacher intention strategy and student focused strategy sub scales loaded together as one variable. Therefore, we can conclude that ,there are two approaches of teaching.

Broadly speaking, a teacher/ content centered conception of teaching is one where the teachers` job is conceived of as knowing his/her subject and then accurately and clearly imparting that knowledge to her students. With this conception Watkins et al. (1991) said that, it is the student fault if the learning out comes un satisfactory and especially students` lack of motivation or ability is to blame. On the other hand, Watkins et al. (1991) argues that, a student/learner centered conception of teaching is one where high quality learning viewed as requiring active construction of meaning and the possibility of conceptual change on the part of the learners.

From this student/ learner centered conception, it is the teachers role to facilitate and encourage each construction and development.

The point here should be which one is more desirable in higher education. Devlin (2006) indicated that university teachers thinking must move away from a teacher/ content centered conception toward a student/learning centered conception in order to that, they would be able to improve teaching practice and student learning outcomes. Kember in Devlin (2006) noted that the conception of teaching approach towards the student centered end of the continuum are superior. Thompson et al. In Yalew (2004) underlined the importance of learner centered approach as;

*The process of discovering what students are thinking and providing opportunities for them to examine and correct possible misconceptions, and providing situations that invite students to expand their thinking and building new knowledge is enhanced by active participation in guided and authentic collaborative exercises to enhance student learning, these approaches have also been shown to increase retention (p.22).*

These point ensured, as student centered approach is more appropriate for students learning especially in higher education institutions.

The philosophy teachers hold about teaching and learning influences their actual practice of teaching. This implies, if teachers view theory (teaching as transmitting information) as appropriate, they tend to focus on teacher centered ways of teaching. The reverse is true for those teachers who perceive teaching with the philosophical assumption of facilitating students learning, rely on students centered form of teaching.

Teachers conception of teaching and learning, contribute its part in the actual process of teaching and learning. Therefore, to enable teachers to practice the learner centered/ student centered approach; first their philosophical conception of teaching and related concepts should be changed. Literature also indicates a common assumption that some form of change in teaching beliefs, attitudes and /or perceptions must first be initiated in has been further assumed that this change will lead to changes in teaching practices which will in turn lead to improve student learning. This implies that, to know the approach adopted by teachers sufficiently, it is better to start from their conception and look their actual practice.

### **2.3.5. Effective Teaching**

Contemporary educators focus on the active participation of students in the process as a means for effective teaching. According to Devlin (2007) effective teaching has been broadly understood as teaching that is oriented to and focus on students and their learning. "teaching quality is what teachers do with what they know once they get inside the classroom, it includes the strategies and

techniques teacher use to get students to learn" (Leslie et al., 2002:36). Perrott (1982) in her book has indicated different studies done by many scholars in observable indicators of effective teaching. She summarized the findings of Flanders (1970) as follows:

*His study in the style of teaching came up with " direct and indirect" style of teaching. Substantial number of studies has found that, pupils of " indirect" teachers learn more and have better attitudes toward learning than pupils of direct teacher. Indirect teaching is characterized by teacher reliance in asking questions, accepting pupils` feeling, acknowledging pupils` ideas and giving praise and encouragement (p.54).*

Similarly, Shuel in Draffan and Rainger (2007) indicated that, if students are to learn desired outcomes in a reasonably effective manner , then the teacher`s fundamental task is to get students to engage in learning activities that are likely to result in their achieving those outcomes.

This shows that, teachers should follow or adopt techniques of teaching with encourage/permit students to engage actively in the process.

As Petersin and Walberg cited in Firdissa (2005) 'effectiveness in learning depends up on a teachers` ability to select and use the appropriate teaching strategy at the appropriate time and considering learners experiences and preferences'(p.51). learning in educational institutions should be about changing the ways in which learners understand, experience or conceptualize the world around them (Ramdsen,2003).

In extending his idea Ramdsen suggested the aim of teaching as attempting to alter students understanding, so that they begin to conceptualize phenomena and ideas in the way scientists, mathematicians, historians, physicians and other experts conceptualize them, in the way that is to say, that we look as an academicians want them to understand.

Therefore what criteria does effective teaching constitute, Researches have found what characteristics of good practice of teaching and learning

constitutes. Chickering and Gamson (1987) summarized the criteria of good practice of teaching in higher education as follows:

**Good Practice of Teaching should include the following Points:**

**A. Encourages student- instructor contact**

Frequent student instructor contact in and out of the class is an important factor in student motivation and involvement. Instructor concern helps student to get through rough times and keep on working. Knowing a few instructors will enhances students intellectual commitement and encourages them to think about their own values and future plans.

**B. Encourages cooperation among students**

Learning is enhanced when it is more like a team effort than a solo race. Good teaching like good work, is collaborative and social, not competative and isolated. Working with others often increases involvement in learning. Sharing once own ideas and responding to others reactions improves thinking and deepens understanding.

**C. Encourages active learning**

Students do not learn much just sitting in class listening to instructors, memorizing assignments and spitting out answers. They must talk about what they are learning, write about it, relate it to past experiences , and apply it to their daily lives. They must make what they learn part of themselves. Goldenberg in Yalew (2004) posited that “ when learning gives students the chance to actively engage in the process and when teachers allow them to see the relation between what they know and experienced, it encourages the developmenmt of creativity, inquisitiveness and motivated learning”(p.19).

**D. Gives prompt feedback**

Students need appropriate feedback on performance to benefit from courses. In getting started, students need help in assessing existing knowledge and competence. In class, students need frequent opportunities to perform and receive suggestion for improvement.

At various points during college, and at the end, students need chances to reflect on what they have learned, what they still need to know, and how to assess themselves.

#### **E. Emphasis time on task**

Learning to use one's time well is critical for students and professionals alike. Students need help in learning effective time management. Allocating realistic amounts of time means effective learning for students and effective teaching for instructors.

#### **F. Communicates high expectation**

High expectations are important for every one- for the poorly prepared, for those unwilling to exert themselves, and the bright and well motivated. Expecting students to perform well becomes a self fulfilling prophecy when instructors hold high expectations for themselves and make extra efforts.

#### **G. Respect diverse talents and ways of learning**

People bring different talents and styles of learning to universities. Students need the opportunity to show their talents and learn in ways that work for them.

According to MoE as cited in Firdissa (2005) stated 'since the same method does not work for every student, HEI teachers should be able to use a variety of teaching methods, so as to address the individual needs and preferences of the students they teach' (p.50).

#### **The Relationship Between Conception of Teaching and the Actual Practice**

Teachers conception of teaching is related with his/her actual practice of teaching and student learning approach.

According to Trigwell and Prosser in Devlin (2006) has demonstrated that teachers conception of teaching affect their teaching practices and their students learning. Similarly Ho et al. (2001) claim that a lecture who conceives of teaching, as the transmission of information is likely to employ teacher centered

strategies in order to apply that conception. On the other hand a lecture who conceives of teaching as helping students to develop their own understanding of material is likely to employ student centered strategies so that she/ he can assist her/his student to come to this understanding.

Therefore, teachers`philosophy/conception of teaching highly related with their practice which in turn influences students learning approach. To have a good practice of teaching and result better students learning, teachr`s must have good conception of teaching which can results maximum students learning. In supporting this idea, Ho et al. (2001) said, there has been a recognition on that genuine improvement in teachers has to begin with a change in their thinking about teaching and learning. Similarly, Gow and Kember in Ho et al. (2001) presented evidence that within a department a predominant trasmission conception appears to discourage students from adopting a deep approach to learning, while a belief in teaching as the facilitation of learning is less likely to induce surface approach. The approach adopted by students can be influenced by different factors of which one is the approach adopted by teachers in their teaching. According to Case and Marshal (2004), students will easily change their approaches to learning in response to changes in the teaching environment.

### **2.3.6. Theories of Learning**

Learning is a process of discovery that generates new understanding about ourselves and the world around us ( Ranson, et al.,1996). Other psychologists and educators define learning in the way that they perceived the world around them. These different definitions for learning and the process of learning led scholars to develop learning theory. According Bigge and Shermis (2004):

*A learning theory is a systematic integrated outlook in regard to the nature of the process whereby people relate to their environments in such a way as to enhance their ability to use both themselves and their environment in a most effective way (p. 8).*

With these respect, different learning theories have been developed starting from early period. Even though many theories are evolving from time to time, in one way or another they are categorized under one of the following major learning theories (that is, Behavioral, cognitive constructivist , humanistic and social learning theory). These major theories are the amalgamation of other many theories, which have relatively similar stance about learning and the occurrence of learning.

For behavioral learning theory, learning is a change in observable behavior, which occurs through stimuli and responses becoming related according to mechanistic principles (Bigge & Shermis,2004). Behavioral learning theory interprets learning in terms of changes in strength of stimulus- response connection, associations, habits, or behavioral tendencies. With this theory , learning is perceived teachers desire to change the observable behaviors of a students in a significant way.

In cognitive learning theory, learning is perceived as a process of gaining or changing insights, outlooks, expectations or thought patterns. They define learning in terms of re-organization of perceptual or cognitive fields so as to gain understandings. Here the assumption is that, humans are logical beings who make the choices that make the most sense to them. Pure cognitive theory largely rejects behaviorism on the basis that, behaviorism reduces complex human behavior to simple cause and effect. In this theory, the teacher aspires to help students develop their understanding of significant problems and situations.

The constructivist learning theory explains human learning as an active attempt of construct meaning in the world around us. Constructivists believe that learning is more active and self directed than either behaviorism or cognitive theory would postulate. The constructicist stance maintains that learning is a process of construction meaning; it is how people make sense of their experience (Merriam & Caffarella,1999).

Followers of this theory believe learner centric instructional classroom method will strengthen the commitment and involvement of self motivated learners because of their high level of interaction.

Having these philosophical outlooks or learning theory, students learning can be influenced by their environments in our case, especially of classroom environment. As Yalaw (2004) stated:

*The views, philosophies, values and conceptions teachers have about the manner in which teaching-learning process should take place determine the nature of instructional methods they chose to present the lessons to their students, the ways they discipline the class, and the type and quality of instructions they make with their students (p.18).*

On the other hand, Torp and Sage (2002) suggested that about the Problem Based Learning (PBL) as "focused, experiential learning (minds-on, hands-on) organized around the investigation and resolution of messy, real-world problems" (p.35). In the problem based learning concepts, it is the problem begging resolution is the starting point for student and teacher efforts.

Then, learning occurs as the problem examined, researched, discussed, debated, and ultimately, resolved. After wards, instructors assist students in processing relevant concepts, seeking to identify lessons learned and to help students see where material fits in the context of a field, other theories, and so on (McKeachie, 1999). This is the inverse of the more conventional "teach, learn, and apply sequence" (Torp & Sage, 2002: 46), in which application exercises are designed (often secondarily) to follow lecture presentations that are the primary means of course content delivery.

PBL matches the desire for discovery and collaboration held by the current "net generation" of learners (Tapscott, 2009: 121).

Further, more; the pedagogical benefits of PBL are compelling. First, PBL can promote lifelong learning and an appreciation for the nuances of complex theoretical material. As a student-oriented pedagogical strategy, PBL empowers learners to understand and integrate theory and practice, while

applying and building knowledge in collaborative environments (Sarvey, 2006) skills that can be apply outside the classroom as well as inside.

Second, Hmelo Silver (2004) notes that students learn best when presented with problems that do not have a single correct answer; this is a major theme of PBL, as students are empowered as problem solving learners. Third, PBL can help build skills such as critical analysis of complex problems, evaluation and synthesis of material, and effective communication of findings (Duch, Groh, & Allen, 2001). Research has found PBL to be associated with increased ability to apply and retain knowledge (Dochy, Segers, Van den Bossche, & Gijbels, 2003). PBL is a recognized pedagogical paradigm, even boasting its own research journal (*Interdisciplinary Journal of Problem-Based Learning*). It has successfully been applied in disciplines as disparate as chemistry (Williams, Woodward, Symons, & Davies, 2010), marketing (Wee, Kek, & Kelley, 2003), art history (Lindner, 2005) international relations (Burch, 2000), and many others. There are many techniques by which PBL may be integrated in the college classroom. This presentation will address, and provide examples of, the following practices.

#### □ *Problem-Solving Scenarios*

These brief activities ask students to reflect upon and write about a real or hypothetical scenario in advance of class discussion of the topic. Discussion can then process the scenario and extract conclusions that become the basis for an understanding of theoretical concepts.

#### □ *Tabletop Simulations*

These simulations conducted in real time in which students must, in class, work collaboratively to resolve a problem.

The work proceeds in stages, allowing for “stop action” discussions at critical points to assess results and address questions progressively as the class works toward an end.

#### □ *Role Playing Activities*

In these activities, students take on roles which they must research ahead of time and from which they must frame their responses to a problem.

These activities are useful for integrating sometimes-disparate perspectives related to a problem, and understanding the alternate objectives and theoretical perspectives that different actors may bring to an issue.

#### □ *Case Method*

The case method is a means of organizing a course as a whole, utilizing case studies to structure course design. Discussion and written exercises generate knowledge holistically that may transcend the need for lecture, as students learn through carefully guided explorations of a collection of thematically related cases. Originating in the medical field to train future physicians, the basic premise of PBL is that learning should be a constructive and active process. Therefore, the role of the instructor is not one of providing direct instruction through traditional lecture-discussion format, but rather one of facilitating student learning through innovative, challenging and collaborative problem solving exercises. This requires careful and intentional efforts and course preparations (Gijssels, 1996).

From the above theories, we cannot conclude that, all teachers will rely on one theory in their lessons rather they can be flexible in a different situation. What is important here is that , teachers should create an environment which results a maximum learning on the side of students. Based on the available context of the learning environment, students will adopt an approach which enables them to interact and graps/ survive the existing situation.

#### **2.3.7. Learning in Higher Education**

'Learning is about how we perceive and understand the world, about making meaning' ( Marton in Fry et al., 2003:9). Fry and his colleagues (2003) elaborated this idea as learning might involve mastering abstract principles, understanding proofs, remembering factual information, acquiring methods, techniques and approaches, recognition, reasoning, debating ideas, or developing behavior appropriate to specific situations. Of course all these points mentioned by Fry characterize all educational institutions including higher education. Currently, the notion of learning as understanding the concept of course content is

becoming an issue than learning as quantitative increase in knowledge. As Biggs (1996) posited:

*There is a need for education today to move away from an emphasis up on teaching towards a perspective which emphasizes learning. This orientation, often referred to as 'learner centeredness' provides a conceptual framework for describing how a learner defines his or her world of learning and comes to terms with it by engaging in the process of learning he or she finds relevant to personal goals and interests.*

Barr and Tagg (1995) are the most figured scholars in this area. In their discussion of paradigmatic shift from instruction to learning. They elaborated the difference between the two paradigms with different aspect. In instructional paradigm the chief agent in the process is the teacher who delivers knowledge; students are viewed as passive vessels, ingesting knowledge for recall on tests. "learning is presumed to be cumulative because it amounts to ingesting more and more chunks"(Tagg & Barr,1995). On the other hand, the learning paradigm frames learning holistically, recognizing that the chief agent in the learner. Thus , students must be active discoverers and constructors of their own knowledge. In this paradigm, knowledge consists of frameworks or wholes that are created or constructed by the learner, according to Barr and Tagg (1995) in learning paradigm knowledge is not seen as cumulative and linear, like a wall of bricks, but as a nesting and interacting of frameworks. Learning is revealed when those frameworks are used to understand and act. This shift of paradigms now a day in higher education from teaching to learning is getting acceptance from many scholars including Ethiopians.

Teachers knowingly or unknowingly conceive and/or preach as learner centered approach is more preferable than teacher centered approach, however; their practice may not be inline with their conception/belief.

Research findings prevails that, a student learning which emphasis more on concept acquisition or understanding, enables them to apply their knowledge in different context.

The learning paradigm of Barr and Tagg (1995) promotes learning in higher education to be conceptual change on the part of students. They stated this as follows;

*“ Education for understanding” a sufficient grasp of concepts,principle and skills so that one can bring them to bear on new problems and situations, deciding in which ways one present competencies can suffice and in which way one may require new skills or knowledge”*

According to Ramdsen (2003) learning that involves a change in understanding implies and includes a facility with a subjects techniques and an ability to remember its details. Studies in UK higher education shows that the emphasis on student-centered teaching, promoting interaction and developing criticality all contributes towards improving the student experience and towards maximizing learning potential.

David in Hartley et al. (2005) viewed effective learning as it is essentially a holistic process that integrates knowing and doing in a critically reflective way and moreover, that work based learning (WBL) is a sound facilitator of this quality. Therefore, all this findings portray for effective learning to takes place, the learner must participate actively and teachers must use techniques which provide an opportunity for students to participate. Learning in higher education should emphasis more on ‘higher level’ conceptions such as learning as applying, abstracting meaning or understanding reality, rather than emphasizing on quantitative increase in knowledge (Kember, 1996). Firdissa (2005) also posited that “what ever the case, learning takes place more reality and effectively, when a number of the human faculities are brought in to the action” (p.51).

### **Conceptual Model for Teaching and Learning in Higher Education**

Much of the research conducted on student learning in higher education has been summarized in terms of the 3-p models. Biggs (2003) containing three elements: pre-stage,process and product. The overall assumption that Biggs has about learning through this 3-p model is that learning outcomes are a result of

the interactions of the teaching and learning contexts with the student approaches to learning. Both student and teaching pre-stage factors interact to produce an approach to learning, which produces its characteristic outcome.

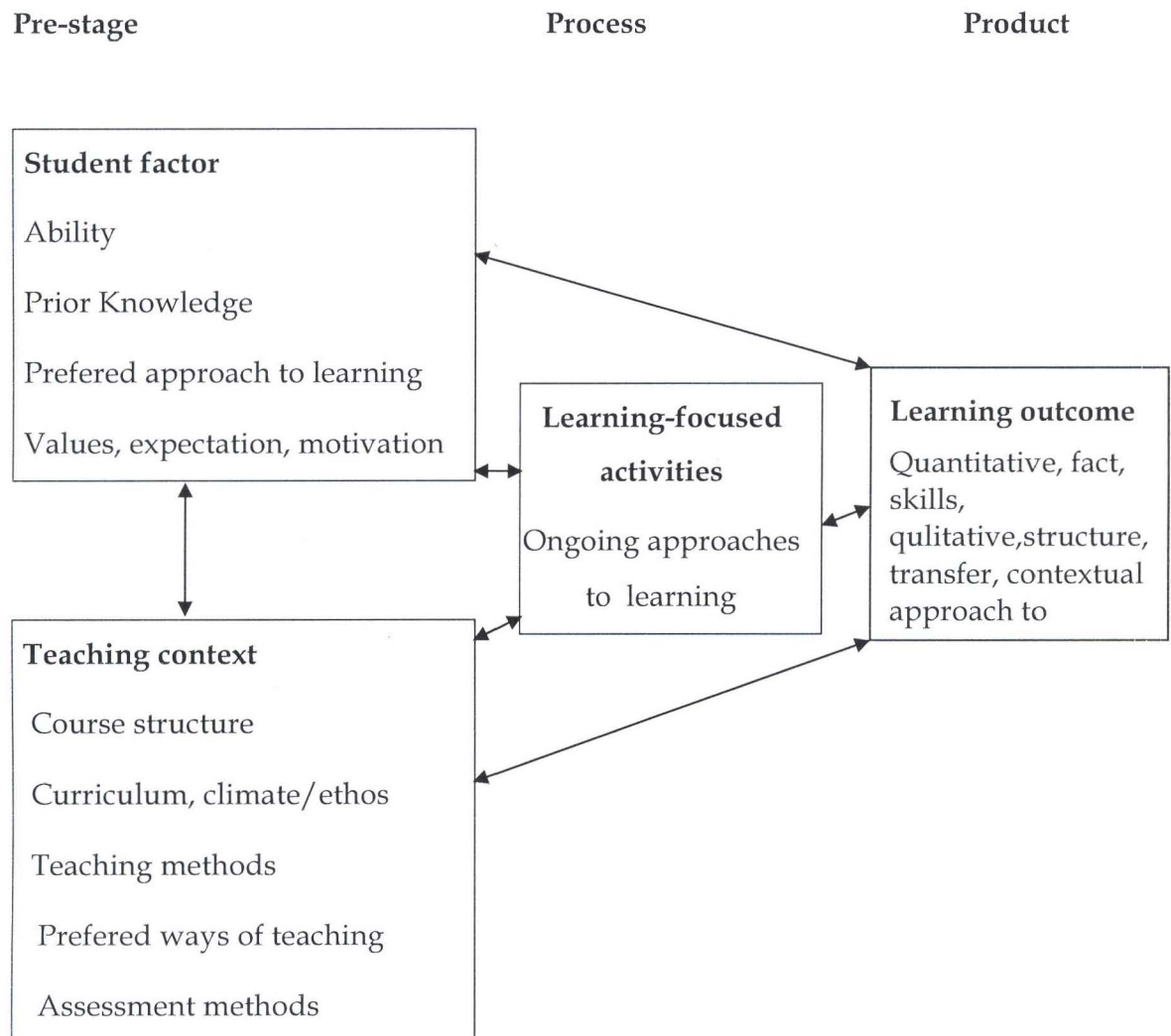


Figure 2. The 3-p models of teaching- learning (Biggs, 1996:350).

Students bring into the learning system some pre-dispositions that are learning related , such as prior knowledge, abilities, values and expectations , ways of learning. These learning related characteristics are referred to as the student pre-stage factors that have a direct impact on the ways students choose to process academic tasks.

The teaching context is the environment set by the teacher and the instruction, through the course structure, curriculum content, methods of teaching and

assessment. Students perceive and interpret the teaching context and adopt a study approach that they think will help them to meet the demands of the teachers and the courses. Hence, an approach to learning is not simply a fixed attribute of the teacher, but a function of both learner characteristics and the teaching factors. Case and Marshhal (2004) also indicated as the discipline and level of material to be learnt have an influence on students' learning. Students' characteristics and the learning environment (pre-stage factor) jointly determine the students' perception of learning environment, then the perception they have about their learning environment, will produce a particular approach to learning which is broadly conceptualized as either 'deep' or 'surface' (Entwistle, 1991 & Ramsden, 1992, 2003).

Model represents relationships between the students' characteristics, perceptions of the learning environment, approaches to learning and learning outcome. Here, what we have to note is that, the approach adopted by teachers in their teaching and students in their studying should focus to bring maximum learning on the part of students. The model also seems to work for teaching approach as well. Teachers have different background characteristics like conception of teaching, experience, workload, training, and the like. In addition the context in which they are teaching like students background influences the approach they adopt in the process. Teachers perceive teaching approach that they think will help them to deliver the course content to their students.

Teachers characteristics and teaching environment determines teachers' perception of teaching and its approach. Then the perception they have about teaching will produce a particular approach to teaching which is broadly perceived as either teacher centered or student centered (Trigwell, Prosser, & Tylor, 1994). There are described clearly in the approach to teaching section of this chapter. The process phase refers to the way teachers and students experience and deal with teaching and learning situations. The heart of the teaching/learning system is at the process level, where the learning related activity produces or does not produce the desired outcomes (Biggs et al., 2001).

The 'Product' phase of the 3-p model suggests that, study approaches are related to qualitative differences in learning outcomes. Students with deep approach learning will produce effective learning outcomes, while in the surface approach teaching they will result in lower outcomes. The 3p's (pre-stage, process and product) when combined explain what learning is about (Biggs, et.al., 2001). It involves the interaction of the student and teaching contexts to produce a particular approach to learning, either deep or surface, which affects the effectiveness of learning outcomes.

#### **2.3.8. Effective Learning**

Clearly, there is no one best way in all consensus of scholars what effective learning is. Because different authors have own different definitions. However, the chairman of the joint chiefs of staff (CJCS, 2009) were clearly put from the perspectives of joint professional military education (JPME) as follows:

1. Effective learning is enabling to develop the conceptions of joint awareness, perspective and attitudes by prepared students (graduates) to operate in a joint, interagency, intergovernmental and multinational environment and bring a joint perspective to bear in their tactical, operational, strategic and critical thinking as well as professional actions. In addition to that, effective learning should reflect joint educational requirements, encourage critical analysis of current and emerging national strategies from a joint perspective and foster a commitment to joint and interagency cooperation. So effective learning is helping to achieve the leadership faculty and students should demonstrate an appropriate commitment to jointness.

2. To learn effectively, employ predominately active and highly effective teaching learning instructional methods. Instructional methods should be appropriate to the subject matter and desired level of learning and should employ active student learning whenever feasible. The goals of the educational offerings are rigorous and challenging, requiring students to engage in critical thinking and active interaction.

3. To learn effective, assess student achievement. Each school/college should aggressively assess its students' performance. Educational goals and objectives should be clearly stated and students' performance should be measured against defined standards by appropriate assessment tools to identify whether desired educational outcomes are being achieved.

4. To learn effective, assess program effectiveness. Schools and colleges should conduct surveys of students, graduates, and their supervisors to determine the educational effectiveness of their academic programs. Students of the college should ensure leadership periodically assess the intended educational outcomes of the JPME accredited programs for currency, relevancy and completeness. Results of these analyses should be used to refine or develop curricula that continue to meet evolving mission requirements in the context of an ever-changing world. Curricula should be the product of a regular, rigorous, and documented review process.

5. To learn effective, conduct quality faculty recruitment: selection, assignment, and performance assessment program. Faculty should have the academic credentials, teaching learning skills, and experience in joint and professional matters needed to teach in the schools and colleges. Faculty roles and responsibilities should be clearly documented. Schools and colleges should hold faculty accountable to clearly defined and measurable performance criteria and standards.

6. To learn effective, conduct faculty development programs for improving instructional skills and increasing subject matter mastery. Each school and college should have a faculty development program to refine teaching learning skills, improve instructional methods, maintain currency in subject areas, and encourage further professional development. Policy and resources must support the faculty development program.

7. To learn effective, provide institutional resources to support the educational process. Each institution must have a library or learning resource center, informational resources, financial resources, and physical resources that meet

the needs of all Students and supports the mission and programs of the institution (CJCS, 2009).

The central message of the above point is very important for teachers particularly in higher education. If they are encouraged the development of effective learning outcomes in their students, such as deep approach learning, understanding, independent learning, critical and creative thinking, problem solving and other lifelong learning attributes, they may need to create contexts that discourage surface approach learning and encourage deep approaches learning. These calls directly to the approach teachers adopt during their teaching. To bring effective learning in students, teachers should bring students at the center of the process. Therefore, student centered approach of teaching and deep approach learning are the two desirable approaches in higher education due to their promotion of effective learning.

### **2.3.9. Approaches to Learning**

Having the above two factors (background and context), students adopt an approach which enables them to meet the demands of the course and teachers. education deals with students as people ,who are diverse in all respect , and ever changing. According Fry et al. (2003) "students bring different backgrounds and expectations to learning and not every one learns in the same way, or equally readily about all types of material" (p.9). " approach to learning is a direct description of learning process used by students and it can be influenced by different factors" (Kember,1996:341). Ramdsen (1992) also discussed that students` thoughts and actions are profoundly affected by the educational context or environment in which they learn.

This author in his book indicated as there are two different kinds of learners who address their learning differently. As he said:

*In most case, students react to the demands of teaching and assessment in ways that are difficult to predict a lot of their learning. It is not directly about chemistry or history or economics and others, but about how to please lectures and gain high marks. Other students can focus on understanding the*

*concepts of the course content which is preferable in higher education. In each case, the role of teachers in influencing students' choice of the particular approach is great.*

According to Schmech in Buckley, et al. (2010) approaches to learning are exhibited when students adopt their learning to suit either their preferences or the situation in which they are engaged. Biggs, et al. (2001), Entwistle, (1991) and Ramsden (1992) identified two main levels of processing which were clearly related to the qualitative differences in the levels of understanding achieved (a high or low level of understanding). They called these levels of processing as deep and surface. Others, also found an additional approach in between these two approaches that is strategic approach.

#### **2.3.9.1. Deep Approach**

This approach comes from a felt need to engage the task appropriately and meaningfully, so that students try to use the most appropriate cognitive activities for handling it (Biggs, 2003). Students adopting this approach set out the intention of understanding the materials, they interact critically with the arguments put forward, relate them to their own prior knowledge and experience, and evaluate the extent to which conclusions are justified. It is based on perceived need, such as intrinsic interest, to engage with the task appropriately and meaningfully. Having the intention to understand the material to be learnt students with this approach used strategies such as reading widely, combining a variety of resources, discussion, reflection, relating parts to a whole, and applying knowledge in real world situations. Students who learn in this way are capable of applying knowledge in new situations and in this way they are better prepared for professional life.

Ramsden, (1992) summarized the characteristics of deep approach as learning that seeks to understand and connect the concepts, relate ideas to previous knowledge and experience, explore links between evidence, analyze arguments and examines rationally. Deep learning represents a "qualitative change in a person's view or reality" (Ramsden 1992:33).

Implicit in this description of learning for understanding is the capacity by the student to perform at progressively higher levels that could be visualised as an upward development spiral. In educational terms, this is a 'constructivist' rather than information centered approach, placing the learner's efforts to understand at the core. Assuming motivated students, effective performance then is largely a function of time, depth of learning, practice and reinforcement. Focus on deep learning or what is often termed learning for understanding favours incremental learning and casts teachers in the role of facilitators or coaches.

The approach requires reflective engagement in the performance, clear and informative feedback, ongoing assessment, and challenge in order that the learners are required to extend themselves (Randsen, 1992). Learning for understanding is not concerned with being able to repeat quantities of information on demand, other than in the context of foundation knowledge.

#### **2.3.9.2. Surface Approach**

This approach comes from the intention to get the task out of the way with minimum trouble while appearing to meet course requirements (Biggs,2003).

A surface approach is associated with students who orient their learning towards memorization and reproduction. They role learn in unrelated way and are constrained by the specific learning task. It is based on a motive or intention that is extrinsic to the real purpose of the task.

Although this approach is taken as successful by some students in certain learning situations, the drawback is that after a test that acquired knowledge is quickly forgotten application of the knowledge for existing structures is hardly developed and students are not skilled in applying knowledge to new situations. Students with this approach realize their intention to reproduce the material to be learnt and avoid failure through regurgitating and using rote learning techniques.

In fact, an emphasis on memorisation of information is characteristic of the naïve learner and is more typical of a surface learning approach.

This less productive learning approach is concerned with immediate task achievement and consequent performance is typically replication within given situations. Notably, earlier research has also shown that surface learning is generally associated with anxiety, fear of failure and low self-esteem (Biggs,2003).

Ramdsen (1992) identified a third approach which is called a 'strategic' approach. This describes students who are primarily concerned with achieving the highest possible grades. They both deep and surface approaches as appropriate and have a competitive and vocational motivation. More recently, these ideas have been developed in to larger frameworks that attempt to provide overarching and systematic modes of teaching and learning in higher education (Trigwell & Prosser in Buckley et al.,2010). This often includes rote learning, filling an essay with detail rather than discussion and list points rather than providing background or context to the work. Some scholars and researchers put the strategic approach as a balance between the two approaches. John Biggs categorize the strategic approach as part of deep approach in encouraging higher level of learning.

**Table 1:** attributes of approaches to learning

<b>Surface approach to learn</b>	<b>Deep approach to learn</b>
<ul style="list-style-type: none"> <li>• Intention only to complete task requirements</li> <li>• Focus on 'the signs' (Sentence of the text, the formula needed to solve the problem)</li> <li>• Memorises informations for assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Intention to understand</li> <li>• Focus on 'what is signified' (The author`s argument, concepts applicable to solve problem)</li> <li>• Relates previous knowledge to new knowledge</li> </ul>

Ramdsen (1992:62).

### **Understand the Influence of Educational Context**

If the quality of student learning in terms of performance is dependent on the learning approach deep or surface then it is imperative to understand the influence of the educational context. This context is created in a large part through student's experience of the curriculum, teaching methods and assessment procedures. For example, students adapt to the perceived requirements as they "try to please their lecturer" and do what they think "will bring rewards in the systems they work in" (Ramdsen,1992: 62). A potential divergence or gap between intention and perception in relation to the educational environment is important because of the possible influence on learning outcomes. This is not to dismiss sound and objective reasons for attention to content and to particular teaching and assessment methods. Rather, the point is to recognise the impact of context and of student perceptions and to ensure the learning environment is congruent with the widest aims of the program (Ramdsen, 1992).

#### **2.3.10. Measuring Approaches to Teaching and Learning**

##### **Measuring Approaches to Teaching and Good Practice of Teaching**

The approach to teaching inventory (ATI) by Trgiwell, Prosser and Ginns,(2005:350) was originated from phenomenographic pedagogy and passed through many revisions. It is now being widely used as an instrument for formally monitoring approaches. The questionnaire has two main scales teacher centered (TC) and student centered (SC) approaches with two sub scales (information transmission intention with teacher centered strategy) and (conceptual change intention with student centered strategy) for each.

##### **Measuring Students' Perception of Learning Environment and Approaches to Learning**

The course experience questionnaire (CEQ) by Ramdsen,(1991:21) was originally proposed to measure the effectiveness of staffs and courses of departments as perceived by students of that department. But latterly, after many revisions it was also accepted as an instrument used to measure the

context of the department in which students are learning. To measure the approach adopted by students in their learning, the original research by Marton and Saljo (1976:8) which characterized by deep and surface approaches, which is done through qualitative research methods is serve as a spring board to develop questionnaire.

Since then, the study process questionnaire (SPQ) for higher education by Biggs (2003), approach to studying inventory (ASI) have been developed by Ramdsen and Entwistle passed through different modifications. Regarding of the above measuring approaches of teaching learning theories, the researcher was used the revised study process questionnaire of the two factor (R-SPQ-2F), which is questionnaire of Biggs,et al. (2001:135).

## CHAPTER THREE. RESEARCH DESIGN AND METHODOLOGY

This chapter deals with research method, population size, sampling technique and procedures, source of data, data gathering instruments and procedures, ethical considerations in the research work, and methods of data analysis.

### 3.1. Research Method

The General method of the study is mixed, Quantitative supported by qualitative approach and the research design is descriptive in nature. Descriptive survey method was selected as an appropriate method to carry out the study as a whole (Best & Kahn, 1998). Therefore, employing mixed approach enables the researcher to look from different perspectives and the context based practice from participants' perspective. Accordingly, Quantitative and Qualitative design is the specific design through with the study was employed. This shows that the study was more of quantitative survey, which was complemented by qualitative method. Therefore, this design enabled the researcher to enhance information obtained through quantitative survey by qualitative exploration.

### 3.2. Population (Subject) of the Study

The Ethiopian Defense Command and Staff College instructors and students were the population of the study. The College has a total of 17 instructors of which 15 were bachelor degrees and 2 masters level. There are totally 151 graduate and 113 under graduate students in the College under six batches. The graduate students were 1<sup>st</sup> batch, 2<sup>nd</sup> batch, 3<sup>rd</sup> batch and 4<sup>th</sup> batch. The under graduate students are 5<sup>th</sup> batch and 6<sup>th</sup> batch. The study particularly focused on 2<sup>nd</sup>, 5<sup>th</sup> and 6<sup>th</sup> batch students of the College. Therefore, all teachers and students of the college were the total population for which inference would be made from the sample.

Students of 1<sup>st</sup> batch (N= 40), students of 2<sup>nd</sup> batch (N= 38), students of 3<sup>rd</sup> batch (N= 38), students of 4<sup>th</sup> batch (N= 35), students of 5<sup>th</sup> batch (N= 33), and students of 6<sup>th</sup> batch (N=80) and all the batches have the same number of instructors in the teaching - learning process in the college. Therefore, the number of instructors in each batch is 17.

In order to avoid the repetition of instructors, the researcher has taken 17 instructors as a whole and the above students as the total population and 3 commandants of the college and 3 selected general officers with out the college were part of the population.

### **3.3. Sampling Techniques and Procedures**

The specific sampling of the study is focused on the three batches that is 2<sup>nd</sup> batch (n= 38 students), 5<sup>th</sup> batch (n= 33 students), and 6<sup>th</sup> batch (n= 80 students), 17 instructors, 3 commandants of the college and 3 general officers. The batches were selected purposely, because they were learned in different curricula and contents to the same (BA) degree in military science and leadership. The researcher did not look in detail the different curricula and contents among the target population. Because the study focused on the teaching-learning process only. The different curricula and contents among target population were raised in order to clear the sampling techniques.

After the batches were determined, availability sampling technique (100% of the given population) was used in here Vanderstoep and Johnston (2009:49). Then, all teachers of the college and all students of the three batches were taken as a sampling population for the study. The " Parallel concurrent" sampling design provided by Johnson and Christensen (2008), were the particular design used in selecting the samples. Accordingly, 38, 33 and 80 students were selected respectively from batch two, five, and six, comprising 151 in total. Finally, a total of 17 teachers were selected. The researcher believes that, the indicated amounts of batches and individuals are sufficient to provide information about the practice of teaching learning process on the survey questionnaire.

For the qualitative part of the study, the researcher has taken 8 students ( both from high and low achiever students) and 4 teachers, whom the researcher thinks could provide information for the particular issue and 3 commandants of the college as well as 3 general officers and conducted interviews with them . The teachers and students for the interview were selected purposely from the populations which were included in quantitative part of the study.

### **3.4. Source of Data**

In this study, both primary and secondary sources of data are gathered to collect relevant information.

#### **3.4.1. Primary Data**

The primary data are those, which are, collected a fresh and for the first time and thus happen to be original in character. Data for quantitative collection and analysis were collected from teachers and students of the college, and qualitative data were collected from selected teachers' students' commandants of the college and selected general officers.

#### **3.4.2. Secondary Data**

The secondary data on the other hand are those, which have already processed and documented by the Ethiopian Defense Command and Staff College. The data were gathered from, strategic plans, training policies, educational reports and abstracts, directives, published and unpublished materials. Hence, using both primary and secondary data helps to enhance the study to look in out many ways and reduce if any bias. Therefore, the study employed both primary and secondary sources of data.

### **3.5. Data Gathering Instruments and Procedures**

Questionnaire and interview were the two main instruments employed to gather data from the subjects. In addition to that, document assessment was another part of the instruments.

**Questionnaires.** Questionnaires consisting of four parts were used to gather data both from teachers and students. In the first part of teachers, questionnaire, some background information regarding educational level, teaching experience, workload, age, military rank and years of service in the army were included and it also identifies whether the teachers had taken pedagogy courses or not. In the second part, teachers' conception of the approach adopted in their teaching were assessed by using approaches to teaching inventory (ATI) of Trigwell and et al.(2005).

The questionnaire for teachers has two main scales that is teacher centered (TC) and student centered (SC) approaches each of which has two sub scales

(intention and strategy). Teaching-learning practice were evaluated in the third part of the questionnaire. Items for this part were provided based on the seven principles of good practice of teaching and learning in higher education and the last part was focused on the open ended items which allow teachers to reflect their opinion in different issues raised in the item.

Similarly, a questionnaire prepared for students has four parts. The first part is about students' background information like their educational level, GPA, age, military rank and years of service in the army.

Students conception of their leaning environment and their learning approaches, were assessed by using the course experience questionnaire (CEQ) and the revised study process questionnaire adapted from Ramdsen (1991) and Biggs et al. (2001) respectively. These had been presented in part two, three and the last part was focused on the open ended items which allow students to reflect their opinion in different issues raised in the item.

**Interview.** By employing in-depth interview with 8 students, 4 teachers, 3 commandants of the college and 3 selected general officers, the researcher tried to collect in depth data from respondents of the study. Through this technique, participants were asked about teachers' approaches of teaching and students' styles of learning, the role of assessment in the teaching learning practice, effectiveness of the practice, the possible challenges of the teaching learning process and suggestions for the improvement of the practice.

The data gathering was employed due to the above two instruments and document assessment tools. This shows that, the study was triangulated with respect to approach, individuals and techniques of data collection.

The procedures followed during the collection of data through the two techniques were concurrent (parallel). When the participants filled the questionnaire, on the other hand, they were interviewed.

#### **Reversed Questions and Newly Created Variables**

Some of the items in the questionnaire were negatively coded and they were reversed during data entry. Part Three students' questionnaire (learning environment) items of (17,19,21,26 and 27) in the CEQ were negatively coded

and they were reversed while analyzing the data. Part Three teachers' questionnaire (teaching practice) items of (26 and 27) were also reversed. In addition to that, some of the items adapted from Biggs et al.(2001), (RSPQ-2F) and Trigwell et al.(2005), (ATI) were reversed to create new variables in the study.

In this regard, items measuring teacher centered (TC) on ATI were reversed and summed up with scores on student centered (SC) to create a new variable called effective teaching approaches.

Developers of approach to teaching inventory viewed the approach to teaching in two bipolar points TC and SC which have five ranks within them. The approaches identified as A, B, C, D and E (see on pages 24-25) were assumed to be found on the continuum. However, the two extremes are opposite to each other in that, TC take the teachers at the center while SC focused on students as the center of the process. Since the main purpose of this study was examining the extent to which teachers are adopting the effective approach to teaching, the two opposite side of the continuum should be changed in to one variable which can have different degree of effectiveness. This was done by reversing the score of teachers on TC and adding this score to the corresponding SC score. These enable the researcher, to know the extent to which teachers are adopting effective teaching approaches.

Similarly, the R-SPQ-2F of John Biggs was an instrument which was developed to measure the learning approach in two major scales that is deep and surface approaches. After each approaches were treated separately, the researcher reversed the score of students on deep approach with the score of students on surface approach to create a new variable which is effective learning approach. Like that of teachers, the reversed score on surface approach were summed up with the original score in deep approach to measure the extent to which students adopting effective learning approaches. Finally the analyses for these new variables were run with the other variables of the study.

**Variables of the Study:** on the part of the teachers; the approach to teaching TC and SC and their effectiveness in practice are the two variables treated.

Similarly, perception of learning environment and approach to learning (deep and surface) are the variables treated for students.

It was created by reversing the score of students on surface approach and summing up with the corresponding deep approach.

**Pilot Study:** before the actual study was conducted, the questionnaires were distributed for the selected 5 teachers and 12 students to check the reliability of the instrument in the college.

Then, appropriate modifications were made to make the instrument reliable. Accordingly, the main variables of the study resulted the following cronbach alpha that is, TC (.52), SC (.61), good practice of teaching (.65), deep approach (.72), surface approach (.66) and perception of learning environment (.68).

### **3.6. Ethical Considerations in the Research Work**

In the journey of the study, efforts were made to protect the research participants, to improve the validity of the data gathered, and to maintain rigor of the overall research procedures and findings. Utmost efforts were made to protect the identities and moral values of the research participants. Equally, validity and procedural rigor has been taken care of as part of maintaining ethical standards of the research work. Among others, efforts were made a) to give clear, understandable and focused directions and criteria for data collection procedures; b) to maintain anonymity of the data sources; c) to corroborate the research results and interpretations by way of mixing the quantitative and qualitative results (Firdissa, 2010:158-161).

Consequently, three ethical principles have been considered in this study: 1) Informed consent, 2) Anonymity, and 5) Procedural rigor.

1) **Informed consent:** consent and cooperation of data sources were secured through different mechanisms. In the first place a) the procedures to followed in giving information on the basis of specific data collection tools; b) the envisaged confidentiality of the responses in the were clearly presented.

2) **Anonymity:** utmost efforts were made to maintain the anonymity of the research participants. The information the research partidcipants provided by no means could reveal their identities.

**3) Procedural Rigor:** care was taken to maintain the rigor of the procedures in relation to preparing and administering the tools for data collection, in selecting appropriate participants, in collecting data, in meticulously sorting out and analyzing the data, and validating the findings.

Overall, utmost possible ethical rules have been considered to ensure that the research is conducted in ethical manner maintaining consent, anonymity, and procedural rigor.

### **3.7. Methods of Data Analysis**

The responses obtained from the participants of the study were analyzed both quantitatively and qualitatively. The statistical methods employed to analyze the quantitative data by using **SPSS** in the following instruments:

**A. Pearson Product Moment Correlation (PPMC):** The PPMC coefficient was employed to examine the relationships between the variables treated in the study. On teachers' questionnaire, variables like the teaching approach (TC and SC) components of good practice of teaching and teachers' background information like experience workload were treated with this tool to see the relationship between them. Approach to learning (deep approach learning and surface approach learning), perception of learning environment and effective learning with the grade point average of the students were also the variables whose relationship would be seen.

**B. Multiple Regression Analysis:** The independent and composite contribution or predicative capacity of teachers' background on the adoption of effective teaching approach (ETA) computed. A multiple regression was run to examine such predicative capacity of background variables on effective teaching approaches. Independent variables like experience, workload, educational level and professional courses were assumed to predict the dependent variable adoption of effective teaching approach.

**C. Independent-Samples t-test:** An independent-samples-t-test is used when you want to compare the mean score, on some continuous variable, for two different groups of participants. Based on this, the researcher compared the mean scores of two different groups of teachers on the independent variables.

Group's criteria like qualification and professional courses, each have two independent groups that is BA (BSc)/MA (MSc), and those who have taken pedagogical courses and those who did not respectively. The comparison of the two groups' mean score with dependent variables ( good practice of teaching and effective teaching) and two different groups of students on the independent variables. Group's criteria like qualification (educational level) diploma and bachelor degree holders with dependent variables (deep approach learning and surface approach learning) were computed with this tool.

The assumption of the independent t-test which is equal variables of groups on the treated variables were considered during the comparison. The Levene's test of (significance  $>0.05$ ) was taken as a point where the two groups have equal variables.

**D. One Way Analysis of Variance (ANOVA):** The one way analysis of variance was used to compare the mean score of three independent groups. The categories of workload, and teaching experience with the dependent variables ( good practice of teaching and effective teaching) for teachers and grade point average was used as a group comparing on dependent variables (deep approach learning and surface approach learning) for students. Like the t-test, the researcher looked the assumptions validating ANOVA before comparison was made. With this respect, in both cases (teachers and students) the groups were mutually exclusive, their equality of variances was checked through the Levene's test and it was justified to use ANOVA. In addition to that, mean score, standard deviation, percentage and maximum and minimum measurements were used to summarize the background of teachers and students and to summarize the basic variables of the study.

## **CHAPTER FOUR. PRESENTATION AND ANALYSIS OF DATA**

The presentation and analysis data are composed different data collection instruments in order to cross-check (triangulated) the analysis by different methods. Based on this, questionnaires distributed to 17 instructors and completed by 16 instructors, and distributed to 151 students and completed by 142 students. And the interview had conducted with 8 students, 4 teachers, 3 commandants of the college and 3 general officers who are not members of the college but who are found to be relevant for the study. In addition to that, another important documents were used as an input in the data collection. The data obtained from the above data collection instruments were contributed towards answering the research questions of the study in chapter one.

The results had made by different statistical tables and descriptions.

### **4.1. Background of the Respondents**

The questionnaires were distributed to 17 teachers and 151 students. From these 142 (94%) students and 16 (94%) teachers properly filled and returned the questionnaires.

The background of the teachers are described by different variables in the study. When we see the professional/pedagogical courses, 13 (81.3%) instructors had taken pedagogical courses, and 3 (18.7%) did not take pedagogical courses. And the teachers had different military rank, Major 1 (6.2%), Lieutenant Colonel 3 (18.8), and Colonel 12 (75%). And the instructors` years of services in the army is also different, 15-20 years ; 2 (12.5%), 21-25 years; 5 (31.3%), and 26-30 years; 9 (56.2%). Similarly, age of the instructors are different, 40-45 years; 6 (37.5%), 46-50 years; 8 (50.0%), and 51 and above years; 2 (12.5%). This indicated that, the instructors have been different professional experience, years of services in the army, this is important related with the good practice of teaching. That means, teachers who did not take pedagogical courses are less professional experience in order to bringing good practice of teaching.

**Table 1. Background of Teachers by Department, Education, Experience, and Workload**

Components		n	Percent (%)
Department	Joint Operation	6	37.5
	Strategy Studies	2	12.5
	Warfare Studies	5	31.3
	Leadership Studies	3	18.7
	<b>Total</b>	<b>16</b>	<b>100.0</b>
Educational level	BA/BSc	14	87.5
	MA/MSc	2	12.5
	<b>Total</b>	<b>16</b>	<b>100.0</b>
Teaching Experience in year	< 2 years	4	25.0
	2-5 years	4	25.0
	6-10 years	8	50.0
	<b>Total</b>	<b>16</b>	<b>100.0</b>
Workload	< 6 Crhr/week	2	12.5
	6-12 Crhr/week	2	12.5
	13-18 Crhr/week	12	75.0
	<b>Total</b>	<b>16</b>	<b>100.0</b>

Table 1 presents the teacher respondents' background in terms of department, educational level, teaching experience, and workload. The different categories of these teachers helped to identify their background information on the analysis in the study. When we see the categorization of instructors, there is a difference between joint operation (37.5%) and strategy studies (12.5 %). And the educational level of teachers shows difference in between BA/BSc (87.5 %) and MA/MSc (12.5%). Similarly, there is a difference in teaching experience in between <2 years 25% and 6-10 years 50% moreover there is a difference in workload in between <6 crhr 12.5% and 13-18 crhr 75%. With this respect, the different category indicates that, the teachers have not the same numbers in the

different department, the teachers have different educational level, teaching experience, and workload. As we have seen Table 1 the background of the teachers are different in different categories. This implies that, the different categories of the teachers can create its own influence in the teaching-learning process in the college. Particularly, negatively affected in the bringing good practice of teaching. Because, if teachers have not the same teaching experience, educational level, and workload, it is clear, it is not bring good practice of teaching easily.

Table 2. Background of Students by Batches, Educational level, Military rank, Years of service, Age, and GPA

Components		n	Percent (%)
Batches	2 <sup>nd</sup> batch	34	23.9
	5 <sup>th</sup> batch	33	23.2
	6 <sup>th</sup> batch	75	52.8
	<b>Total</b>	<b>142</b>	<b>100.0</b>
Educational level	Diploma	120	84.5
	BA/BSc	22	15.5
	<b>Total</b>	<b>142</b>	<b>100.0</b>
Military rank	Major	5	3.5
	Lieutenant Colonel	49	34.5
	Colonel	88	62.0
	<b>Total</b>	<b>142</b>	<b>100.0</b>
Years of service in the army	15-20 years	14	9.9
	21-25 years	59	41.5
	26-30 years	69	48.6
	<b>Total</b>	<b>142</b>	<b>100.0</b>
Age	35-40 years	16	11.2
	41-45 years	84	59.2
	46-50	42	29.6
	<b>Total</b>	<b>142</b>	<b>100.0</b>
GPA	2.1-2.80	82	57.7
	2.81-3.55	46	32.4
	3.56-4.00	14	9.9
	<b>Total</b>	<b>142</b>	<b>100.0</b>

Table 2 shows the students background in terms of their batches ,educational level, military rank, years of services, ages and GPA. Accordingly, there are differences in batches in between 5<sup>th</sup> batch (23.2%) and 6<sup>th</sup> batch (52.8%). as well as, there is a difference in between educational level Diploma (85.5%) and BA/BSc (15.5%). Similarly, there is a difference in GPA in between 2.1-2.80 (57.7%) and 3.56-4.00 (9.9%). These different categories in the background of the students, can create its own negative influence in the teaching-learning process in the college. When we have seen, the GPA between 2.1-2.80 (57.7%) and 3.56-4.00 (15.5%), there is a big different between them. This indicated that, the background of the students are one factor to achieve the teaching-learning process successfully.

The descriptive statistics for the main variables of the study are presented in Table 3 below:

The main variables are described with the minimum, maximum, mean and standard deviations of each variable. The descriptive statistics for these variables are summarized as follows.

**Table 3. Summary of Descriptive Statistics for Main Variables**

Variables in the study		Min	Max	Mean	SD
For Teachers n(16)	Teacher- centered Approaches	4	18	13.94	3.151
	Student- centered Approaches	12	45	32.88	8.586
	Effective Teaching	20	53	37.31	9.300
	Good practice of teaching	11	35	20.44	7.420
For Students n(142)	Deep Approaches	23	32	27.58	2.502
	Surface Approaches	22	34	27.53	2.772
	Effective Learning	7	27	20.11	4.810
	Perception of learning environment	8	30	18.10	5.879

Table 3 indicates that the descriptive statistics of the main variables shows different results. When we see, the mean (13.94) of teacher-centered approaches differ from the mean (32.88) of student-centered approaches. According to statistical description of Table 3, the teaching approach of the college is more focused to student-centered approaches. But, in the open-ended questionnaires, and interview questions, the teachers and students raised, the teaching approach of the college is more focused to teacher-centered approaches. Because, teachers are highly fast to end their subject in the given time. Then, students are not highly participated in the given subject. Conversely, there are no differences in the mean (27.58) of deep approach learning and the mean (27.53) of surface approach learning. But, in the open-ended questionnaires, and interview questions, teachers and students raised the learning approach is focused to surface approaches. Because, the study of the students were limited on the distributed handout to pass the exam. Students were not developed their knowledge with deep (conceptualize) approaches.

#### **4.2. Analysis of Data for Teachers and Students**

Based on the basic research questions the data were interpreted as follows:

##### **4.2.1. The Implementation of the Objectives of the Ministry of Defense in the Teaching-Learning Approaches in the College**

**Table 4. Correlation Between Approaches to Teaching, Components of Good Practice of Teaching and Teachers Background (Experience and Workload)**

	Variables											
	1	2	3	4	5	6	7	8	9	10	11	12
1. TC	-	<b>-.77**</b>	-.02	-.32	-.01	-.13	-.10	-.48	-.01	-.16	.14	-.27
2. SC		-	.32	.01	.13	.12	.17	.01	.13	.16	-.01	.15
3. ESTC			-	.68	.86	.64	.75	.39	.86	.90	-.15	.22
4. ECAS				-	.74	.62	.75	.74	.74	.90	.00	.26
5. EAL					-	.43	.85	.32	1.00	.90	-.01	.50
6. GPF						-	.45	.45	.43	.68	-.11	.04
7. ETT							-	.28	.85	.90	-.10	.41
8. CHE								-	.32	.56	-.16	.27
9. RDT									-	.90	-.08	.50
10. GPT										-	-.03	.29
11. WL											-	-.60
12. TE												-

\*\* .P<0.01 (two tailed) the Bold one are the major variables.

As Table 4 shows, the teacher centered approaches were significantly and negatively correlated with student centered approaches  $r=-.77$ , ( $p<0.01$ ) and negatively correlated with the seven components of good practice of teaching (see Table, 4). And also, negatively correlated with the good practice of teaching  $r=-.16$ , ( $p<0.01$ ), as well as negatively and weakly correlated with teaching experience  $r=-.27$ , $p<0.01$ . On the other hand, teacher centered approach was positively correlated with workload  $r = .14$ , ( $p<0.01$ ).

This implies that, when teachers developed teacher-centered approaches, and when the teaching situations are not encouraged student-centered approaches, the teacher-centered approach is increased but the student-centered, and good practice of teaching approaches are decreased.

So, the relationship between these variables (teacher-centered approach with student-centered approach and good practice of teaching) are correlated in opposite direction (see Table 4).

Conversely, teacher-centered approach was positively correlated with workload  $r=.14$ ,  $p<0.01$ . This indicates that, when teacher-centered approach is increased, workload also increased. So, the relationship between the two variables are directly grown ( increased) in the same direction.

On the other hand, student-centered approach was positively and weakly correlated with the seven components of good practice of teaching (see Table, 4). And positively correlated with good practice of teaching  $r=.16$ ,  $p<0.01$ , and positively correlated with teaching experience  $r= .15$ , $p<0.01$  . This implies that, when student-centered approach developed, and when the teaching situations are encouraged student-centered approaches, student-centered approach and good practice of teaching will be increased in the same ways. So, the relationship between the two variables (student-centered approach and good practice of teaching) were positively correlated in the same directions (see Table 4). Conversely, the student-centered approach was negatively correlated with workload  $r=-.01$ , ( $p<0.01$ ) which is very small value almost (null) but slightly correlated in a negative direction. This indicates that, when the approach is student-centered, teachers do as a teaching facilitators to students learning. So, it does not influenced on the teachers workload.

In the open-ended part of the questionnaires and interviews, the participants raised their opinion in the teaching-learning approaches of the college. Based on that, most of their opinions are indicated,

The teaching-learning approaches of the college are implemented in line with the objectives of the Ministry of Defense. The graduated students from the college are participated in national and international military missions. Particularly, in peace keeping missions in different African countries. Besides, graduate students are employed and are leading at different levels in the institution (organization) of the Military of Defense.

Even though employed the above points, the teaching-learning approaches of the college had its own limitations in order to achieve the objectives of the Ministry of Defense at different levels. These limitations of the students, who graduate from the college are:

Lack of English language, shortage of detail understand of the Ethiopian military doctrine and military science and limitation in the current military technological tools (equipments), for instance, use of (computer, internet, library and different military softwares about wargame simulations). This indicates that, there is some shortage in the teaching process of the college in order to achieve the objectives of the Ministry of Defense.

In addition to Table 4, when the researcher interviewed teachers, the general theme that ran through the responses to these teaching variables were restricted on the teacher-centered approaches. That means, when they first began their teaching careers they were restricted on the teacher-centered approaches teaching. But, later on, they changed their approaches in order to make themselves more “ learner-centered” or “conceptual change student-centered”. In support of this evidence, one of the instructor`s described:

*After having many years of experience in teaching military science through teacher centered method, I have changed my teaching method to the learner-centered method. That is, using all aspects of military science in order to develop effective teaching approaches. Because I feel that the later approach (learner-centered) produces more intended results and imparts better concepts to the students.*

The findings of this study, evidenced as teachers view their approaches of teaching differently. Some teachers in the open-ended questionnaires viewed their approaches as student-centered while others were adopting teacher-centered approach.

As it was indicated in the correlation analysis of approaches to teaching, components of good practice of teaching with teachers background (teaching

experience and workload) in Table 4, the teacher-centered approaches were negatively correlated with the seven components of good practice of teaching.

Accordingly, when the approaches are teacher-centered, the teacher does not exercise (focus) on the different types of teaching activities. Therefore, the teachers are not focused on the good practice of teaching in the teaching learning process.

As a result, the students do not receive different alternatives in order to develop their knowledge. Conversely, teachers who conceive teaching as a student centered approaches are positively correlated with the seven components of good practice of teaching. This indicates that, if the teaching approaches are student centered, it is interrelated with the different components of teaching practices in order to extend students knowledge. Besides, these teachers are better in adopting effective teaching approach. It is a necessary having this approach of teachers who conceive teaching in its effectiveness in higher institution context.

The finding obtained by Yalaw (2004) demonstrates as teachers seem to favor the traditional teacher centered approach. Therefore, the findings of this study shows a change in the conception of teaching approach and it also provides a hope for societies in higher education in the journey of ensuring effective teaching.

Of course, teacher centered as an approach may not be condemned as it is meaningless or less important in all context of teaching rather it can play its unique role by which the issue/content is not appropriate to be addressed by student centered approach. Proponents of student centered also agree that as an approach, student centered is not able to cure all problems raised in the teaching learning process.

Research have shown that teachers at all levels hold personal conceptions of teaching which are developed from their long years of classroom experience as students and subsequently as teachers (Ramdsen 1992, Trigwell, Prosser & Tylor 1994).

These and other researchers, explored the conception/beliefs teachers have about what teaching and related concepts are, through interview and semi structured questions. The findings of these studies have considerable commonality.

The relationship between workload and teacher centered is correlated in a positive direction. Similarly, on the open-ended questionnaires teachers and students put their opinion regarding the relationship between teacher centered approach teaching and workload. The teacher-centered approaches were highly related with the workload. When teachers have high workloads especially if it is supported by large number of students in the classroom (Yalew, 2004) teachers prefer to present the course content in a simple lecture method and provision of handouts. Accordingly, workload is one factor which can push teachers to have a conception of teaching as imparting facts and principles in the students.

Good practice of teaching is negatively correlated with workload  $r=.03$ ,  $p<0.01$ , but ( $r=.03$ ) is a very small value, it means almost (zero). As a result, it implies that, there is no relationship between good practice of teaching and workload. The relationship between good practice of teaching and teaching experience is positively correlated(  $r=.29$ ,  $p<0.01$ ), this indicated that, when teaching experience is increased, the good practice of teaching will be increased. At the end of Table 4., the relationship between workload and teaching experience is negative correlated  $r=-.60$ ,  $p<0.01$ , this implies that, when teaching experience is increased, the workload will be decreased.

#### **4.2.2. Teachers Effectiveness in Bringing Good Practice of Teaching in the College**

Variables, workload and professional courses are some predictors for the adoption of effective teaching approaches through standard multiple regression analysis method.

**Table 5. Multiple Regression Analysis of the Variables Predicting Effective Teaching**

Predictors	B	$\beta$	SE	t	sig
Workload	2.49	.192	3.54	.70**	.50
Professional courses	5.02	.218	6.31	.80**	.44

R=.260 R<sup>2</sup> = .068 corrected R<sup>2</sup>= .067 p<0.001

Table 5 shows that the predicting of effective teaching Beta values with workload and professional courses. In this case, the researcher is interested in comparing the contribution of each independent variable. Then, the researcher used the beta values with the largest contribution to the dependent variable. Thus, the largest beta coefficient is .218, which is for professional courses. This indicated that, the variable makes the strongest unique contribution to explaining the dependent variable (effective teaching), when the variance explained by all other variables in the model is controlled for. The beta value for workload is slightly lower .192, indicating that it made less of a unique contribution to explaining the dependent variable (effective teaching). However, the two measures of control (professional courses and workload) variables did not make a statistically significant unique contribution to the dependent variable (effective teaching). Because the **significance** value of these independent variables are greater than .05.

**Table 6. Summary of t-test for the Difference of Qualification in Adopting Effective Teaching and Good Practice of Teaching**

variables	qualification	n	mean	sd	t
Good practice of teaching	BA/BSc	14	19.86	6.61	-.82
	MA/MSc	2	24.50	14.85	
Effective Teaching	BA/BSc	14	37.07	8.98	-.27
	MA/MSc	2	39.00	15.56	

\*\*p $\leq$ 0.05

As Table 6 shows, an independent - samples t-test was conducted to compare the good practice of teaching and effective teaching for BA/BSc and MA/MSc. There was no significant difference in scores, good practice of teaching for BA/BSc (M=19.86, SD= 6.61) and MA/MSc (M= 24.50, SD= 14.85) at (t= -.82, p>0.05). Similarly there was no significant difference in scores, effective teaching for BA/BSc (M= 37.07, SD= 8.98) and MA/MSc (M= 39.00, SD= 15.56) at (t= -.27, p>0.05).

**Table 7. Summary of t-test for the Difference of Professional Courses in Adopting Good Practice of Teaching and Effective Teaching**

variables	pedagogy	n	mean	sd	t
GoodPracticeof Teaching	yes	13	18.85	6.78	-1.94
	No	3	27.33	7.02	
Effective Teaching	yes	13	36.54	7.72	-.68
	No	3	40.67	16.44	

\*\*p>0.05

As Table 7 shows, an independent-samples t-test was conducted to compare the good practice of teaching and effective teaching for yes/no on the professional courses. There was no significant difference in scores, good practice of teaching for yes (M= 18.85, SD= 6.78) and no (M= 27.33, SD= 7.02) at (t= -1.94, p>0.05). Similarly, there was no significant difference in scores, effective teaching for yes (M= 36.54, SD= 7.72) and no (M= 40.67, SD= 16.44) at (t= -.68, p>0.05).

However, on the open-ended questionnaires teachers and students reflected their opinion regarding qualifications and professional courses of the teachers as a whole. These opinions emphasized on the teachers capacity building activities and developing rich teaching experience. As teachers reflected on the open-ended questionnaires, the teaching experience of the teachers were not enough. Accordingly, the teaching learning processes have its own limitations based on the qualifications and professional development of the instructors.

Therefore, teachers' capacity development could more to bring about effectively utilize the skills, knowledge and expertise activities, in bringing to the effective teaching learning process.

In addition to that, several teacher respondents commented the lack of teacher development activities as a problem to them at their teaching-learning process. Besides, when the researcher interviewed teachers, they reflected the problem of teacher development activities. Now a days there is a positive movement in order to develop the capacity of the teachers. But it was late.

For instance, one teacher explained:

*I have only earned a first degree, even though I have been teaching in this college for almost five years for the bachelor's degree program. There is no enough internet service, no enough reference books, no enough resources whatsoever. There are no chances of meeting other teachers for experience sharing or attending any workshops to improve my knowledge. Moreover, the workload is high as there are no adequate teachers in our college, so I do the something over and over again. It is boring not only for me but the students as well.*

**Table 8. ANOVA Summary Statistics in Workload Difference for Adopting Effective Teaching and Good Practice of Teaching.**

Variables	Levels	Sum of squares	df	Mean square	F	Sig.
Good practice of teaching	Between Groups	37.67	2	18.84	.31	.74
	Within Groups	788.25	13	60.64		
	Total	825.94	15			
Effective teaching	Between Groups	35.27	2	17.64	.18	.84
	within Groups	1262.17	13	97.09		
	Total	1297.44	15			

Table 8 shows the teachers were divided in to three groups according to their workload (group 1: <6 crhr; group 2: 6-12 crhr; group 3: 13-18 crhr).

There was no a statistically significant difference at the  $p>.05$  level in good practice of teaching scores, for the three workload groups;  $F(2,13) = .31, p=.74$ . Similarly, there was no a statistically significant difference at the  $p>.05$  level in effective teaching scores, for the three workload groups;  $F(2,13) = .18, p=.84$ .

**Table 9. ANOVA Summary Statistics for Experience Difference in Adopting Effective Teaching and Good Practice of Teaching.**

Variables	Levels	Sum of squares	df	Mean squares	F	Sig
Good practice of teaching	Between groups	70.56	2	35.28	.61	.56
	Within groups	755.38	13	58.11		
	Total	825.94	15			
Effective teaching	Between groups	20.19	2	10.09	.10	.90
	Within groups	1277.25	13	98.25		
	Total	1297.44	15			

According to Table 9, the respondents were divided in to three groups based on their teaching experience in years (group 1: <2 yrs; group 2: 2-5 yrs; group 3: 6-10 yrs). There was no a statistically significant difference at the  $p>.05$  level in good practice of teaching scores for the three experience groups;  $F(2, 13) = .61, p = .56$ . Similarly, there was no a statistically significant difference at the  $p>.05$  level in effective teaching scores for the three experience groups;  $F(2, 13) = .10, p=.90$ .

On the other hand, in the open-ended questionnaires, some teachers and most of students reflected their opinion on the workload and teaching experience of the teachers and its relevance to good practice of teaching and effective teaching. however, they noted that the teachers teaching practices were not enough to use detailed military experiences from the continental and global military dynamism perspectives.

Similarly, the teaching experience of the teachers was found to be inadequate. Particularly, they did not use broadly and clearly, in Ethiopian military experiences based on teaching materials and control assessments in order to develop the Ethiopian military doctrine and military science. Besides, the instructors of the college are small in number, forced with high workload. Therefore, not only qualification but also high workload influenced the teaching-learning process of the college.

In addition to that, in the interview questions participants were raised their opinions in terms of the effectiveness of teaching-learning approaches in the college. The participants were emphasized on the limitations of teaching-learning processes in the college. So the effectiveness of teaching in order to bring good practice of teaching had its own limitations, that lack of availability teaching materials, limited teaching experiences, lack of current research in the field, weak teachers approaches of teaching and assessment, the dominance of theory in their teaching and the given group assignment and project did not relate more with the current military situation on the ground.

On the other hand, the researcher used multiple regression analysis to measure effective teaching by controlling of professional courses and workload. As the result indicated, professional courses were the largest contributor than workload.

This implies that, when we think to develop effective teaching, it is important (necessary) to come up professional courses. Accordingly, we have to be focused to professional courses in order to develop (enhance) effective teaching. In addition to that, Table 5 indicates professional courses and workload are found to be the most important variables which make teachers to perceive teaching in its effectiveness. This has great practical implication for the teachers and societies of the college. Now a days in MoND, many teachers have been assigned as teachers at different colleges of the institution including EDCSC. The researcher is not arguing why teachers are recruited with out having the skill and knowledge of teaching, because the institution needs

professionals in different sectors. Rather the point should be how instructors will develop their knowledge and skills, in order to teach their students effectively. Therefore, if teachers' conception of approach to teaching and their actual practice are related, there should be a focus on changing teachers' perception about teaching approach. To do this, the workload assigned for teachers and developing their teaching capacity through in service training should be given a due attention. Ho Watkins and Kelly (2001) found in their experimental research that through in-service training there is a change in teachers conception of teaching which in turn positively affected their teaching practice. These two variables workload and professional courses are predicting the variances between teachers to conceive teaching and its effectiveness.

This implies that, if the college prepares seminars, panel discussion and other short in service training programs, the conception teachers hold about teaching can be changed or developed to effective teaching conception. When you talk about teachers' conception and actual practice of teaching, you have directly dealing with students learning. Teachers teaching approach and students learning are highly related. Entwistel (1991:202) found that, approaches to learning are influenced by lectures' theories of teaching and by the ways in which knowledge is structured and presented.

The actual practice of teachers in the classroom context are assessed according to the seven principles of good practice of teaching and learning in higher education. These principles are; student teacher contact, cooperation among students, active learning methods, prompt feedback, time on task, teachers expectation of students, and respect for diverse talents and ways of learning. These are the heart of teaching - learning in contributing in the assurance of effective teaching. The relationship between these variables (components of good practice of teaching) within and between other variables are presented in Table 4. These variables are significantly correlated with student centered approach. Because the seven principles are designed with the student centered approach by making students at the center of the teaching learning process.

Teachers in educational institutions particularly in higher education are expected to be effective in these components of good practice of teaching. These effectiveness starts from healthy contact between teachers and students. The tradition of education by itself view teachers who present lesson in a more expressive way, dominating the class, give notes to students, strictly manage the class and tell the students what to do, as effective teachers. Yalew (2004:35) posited that the Ethiopian society mainly values authoritarianism way of teaching which in stills in the students a sense of conformity than creativity. The second and third components of good practice of teaching is teachers` effort to create cooperation among students and employ active learning methods. Teachers in higher education should encourage students to work together in their learning, asking them to give constructive feedback on each others work and creating a desirable environment which helps students to learn better.

In addition, if the environment is not active, students do not feel sense of ownership in their learning rather they passively receive what the teacher trasmits. Learning environment should allow students to exchange their ideas, relate the content of the course to their real life, discuss and debate to explore new things and the like. Therefore, classroom teachers should create a suitable environment for students to enable them learn by themselves.

Time on task and prompt feedback are the other important components through which teachers` effectiveness is measured. The extent to which teachers use the time in the classroom for academic purpose is necessary in order to enhance actual teaching learning processes. Therefore, when teachers utilize the class time for academic purpose they and their students will benefit more. Similarly, they also reported as they are better in providing timely feedback for students to look and improve their progression.

The other important principles are communicating students as they are expected to work hard and respecting diverse talents and ways of learning in the classroom.

In a situation where teachers' conception of teaching is in teacher-centered stance, it is difficult to think as students have something about the contents and expect them to perform in high order. In this kind of teaching, students are to be blamed for their failure because the teacher assumes as he/she knows every thing of the course.

This kind of conception and practice is too dangerous for the aim of effective teaching approaches. If teachers do not expect his/her students to do at higher level, so many things will remain hidden in the mind of students. But, in a situation where teachers expect students to work hard, students will become creative of knowledge. To do this, teachers must consider diverse talents and way of learning. Unless multivariate techniques are employed in the teaching learning process, it is too difficult to get the attention of all students in the process. Yalew (2004:20) found that students become under achievers not only because they lack the competence or the ability to do the task rather they may not value education for various reasons in which one could be the nature of the methodology that the teachers use in presentation of their lessons.

#### 4.2.3. Learning Approaches Student use in the College

**Table 10. Summary of t-test for the Difference in Qualification for Deep Approaches Learning and Surface Approaches Learning**

variables	qualification	n	mean	sd	t
Deep learning approaches	Dip	120	28.38	2.62	-3.65
	BA/BSc	22	28.68	1.25	
Surface learning approaches	Dip	120	27.59	2.75	.64
	BA/BSc	22	27.18	2.95	

\*\*p<0.05

As Table 10 shows, an independent - samples t-test was conducted to compare the deep approach learning and surface approach learning for Dip and BA/BSc.

There was a statistically significant difference in scores, deep approach learning for Dip (M=27.38, SD= 2.62) and BA/BSc (M= 28.68, SD= 1.25) at (t= -3.65, p<0.001). This indicated that, when we think to develop deep approach learning, it is necessary to come up our qualifications. So, the relationship of the two variables were positively increased.

On the other hand, there was no a statistically significant difference in scores surface approach learning for Dip (M= 27.59, SD= 2.75) and BA/BSc (M= 27.18, SD= 2.95) at (t= .64, p>0.05). As a result, when we develop surface approach learning, there was no relationship with the qualification of the students.

**Table 11. ANOVA Summary Statistics for GPA Difference in Deep Approach Learning and Surface Approach Learning**

variables	levels	Sum of squares	df	Mean square	F	Sig.
Deep approach learning	Between groups	200.92	2	100.46	20.48	.00
	Within groups	681.73	139	4.91		
	Total	882.65	141			
Surface approach learning	Between groups	5.26	2	2.63	.34	.71
	Within groups	1078.13	139	7.76		
	Total	1083.39	141			

Table 11 indicates the students were divided in to three groups according to their GPA (group 1: 2.1 - 2.80; group 2: 2.81 - 3.55; group 3: 3.56 - 4.00). Accordingly, there was a statistically significant difference at the p<.05 level in deep approach learning scores for the three GPA groups; F (2,139)= 20.48, p=.00. On the other hand, there was no a statistically significant difference at the p>.05 level in surface approach learning scores for the three GPA groups; F (2,139)= .34, p= .71. This implies that, when deep approach learning is increased, the scores (the achievement level of students GPA) were increased.

Therefore, There was a statistically significant relationship between GPA and deep approach learning. Conversely, there was no significant difference in GPA and surface approach learning. This shows that, when the approach is developed surface approach learning, it is difficult to think about the scores achievement level of students GPA. Because, surface approach learning by nature did not encouraged students to achieve high scores level of GPA.

Students approach to learning is to some extent determined by their past learning experience and their teachers teaching approaches. Accordingly, the students` background, such as lack of qualification (unbalanced capacity among them), language deficiency are negatively affected the students learning approaches. Based on that, the practice of the most students of the college are focused in the exam oriented or more gravitate to surface approach learning, the GPA of 82 (57.7%) of the students had gotten 2.1-2.80. But some students are focused in the detail study or deep approaches learning, the GPA of 14 (9.9%) of the students had gotten 3.56-4.00 (see Table 2). This implies that, the learning approaches of the college is more focused to surface approach learning. In addition to that, in the open-ended questionnaires and interviews questions, participants were raised their opinions in terms of learning approaches in the college. The most participants opinion were focused on the surface approach learning. Because students were fastly covered the given subject in the limited time. They were not reading different reference books in order to develop their knowledge. They were limited on the distributed handout. And also learning system of the college were focused on the large amount of time used in class lecture in order to end the given subject. It conducted weak students` experience sharing activities within and out of the college. But some times there is an improvement in the learning approaches of the college. That means, students have individual assignments, group assignments, and syndicate discussions in order to develop their knowledge. But the approach was limited based on the given time. It was not adequate to discuss detail as much as possible students` experience.

Military science by its nature needs more detail discussions in order to develop clear concepts in the field.

According to Entwistle (1991), and Ramsden (2003) the nature of the course as perceived by students is an important determinant of the choice of learning approaches.

#### 4.2.4. Students Perception of the Learning Environment of the College

**Table 12. Pearson Product- Moment Correlations Between Measures of GPA and Main Variables of Learning Approaches**

	1	2	3	4	5
1. Grade point average	-	.43**	-.05	.30**	.32**
2. Deep approaches		-	-.24**	.26**	.41**
3. Surface approaches			-	-.32**	-.12
4. Perception of learning environment				-	.57**
5. Effective learning approaches					-

\*\*p<0.01(2-tailed)

Table 12 presents that all the main variables of learning approaches in considering with perceptions of learning environment in order to develop high scores of grade point average of the students. The students grade point average was significantly and positively correlated with deep approach  $r=.43$ ,  $p<0.01$  and positively correlated with perceptions of learning environment  $r=.30$ ,  $p<0.01$ , in the same way, positively correlated with effective learning approach  $r=.32$ ,  $p<0.01$ . This implies that, those students who gained deep approach learning, perceive learning environment and effective learning as supportive of their learning are achieving high levels of GPA.

In the open-ended questionnaires and during the interview session, some students raised their opinions in terms of learning environment of their college as encouraged them to study hard.

As to one student's perception:

*Our teachers are encouraged us to learn better, using different methods of teaching, giving respect to students' idea, and they are also fair in grading, they encouraged us to ask questions and participated actively in the teaching learning process of the college.*

On the other hand, the grade point average was small and negatively correlated with surface approach  $r = -.05$ ,  $p < 0.01$ . This is almost (zero), this indicated that, there was no relationship between grade point average and surface approach learning. But slightly, these students who were less supportive of their learning experience earned lower grade point average.

Similarly, deep learning approaches were significantly and negatively correlated with surface approaches  $r = -.24$ ,  $p < 0.01$ . This indicated that, wherever deep approaches increased, surface approaches are decreased. On the other hand, deep approach learning was positively correlated to the perception of learning environment  $r = .26$ ,  $p < 0.01$ , also positively correlated with effective learning  $r = .41$ ,  $p < 0.01$ . This implies that, the deep learning approach was related with those variables in the same way to positive approaches.

Conversely, the surface approaches learning were significantly and negatively correlated with perception of learning environment  $r = -.32$ ,  $p < 0.01$ , and negatively correlated with effective learning  $r = -.12$ ,  $p < 0.01$ . This indicated that, when the surface learning approaches were increased, the perception of learning environment and effective learning were also decreased. So, the relationship between the two variables were negatively correlated.

Also, we can observe that, the perception of learning environment was significantly and positively correlated with effective learning  $r = .57$ ,  $p < 0.01$ . accordingly, when the perception of learning environment is increased, effective learning also increased. So the relationship between the variables were positively correlated.

In this case, some students from different batches reflected their opinion in the open-ended questionnaires, regarding the learning environment as less

supportive of their learning. The intention here is that, the teachers provided reading materials for students which was directly linked to the exams oriented approaches. This directly limited the intention of the students to discovering many things by referring to different learning materials.

Others also, reflected that absence of smooth relationship between teachers and students, failure to include all students in effective learning process and focusing only on the teaching-learning process depends on the given subject. Therefore, in some cases the environment did not encourage students to adopt deep approach learning.

The learning environment of the college is improved from time to time. But still, there is some limitations negatively affected the teaching-learning environments. That is inadequate teaching materials, lack of current research in the field, shortage of internet and library services, lack of continuous assessment in the field, and lack of facilities, such as teachers did not take pedagogical courses 3 (18.7%), see Table 1, teachers and students experience sharing, workshops, and symposiums about teaching (teachers capacity building) are the major problems influenced the learning environments of the college.

A vast amount of research indicates, when students are exposed to a particular context, they are differentially responsive to the learning environment, according to their perceptions of the teaching learning context and its requirements (Biggs 2003, Ramsden 1992 & Entwistle 1991). As shown in the conceptual model of learning at the pre-sage level, the learning environment is one factor which significantly determines students learning. The learning environment/context includes the situational factors ranging from institution, college to course. At the course level, decisions are made about various aspects of the learning environment such as the format of the meetings, learning materials, the role of the teacher and the student, the degree of cooperation between students, the size of groups, the degree of self regulation, workload and assessment.

Having these components of learning environment at the course level, students perception of these elements can vary based on their characteristics. Ramdsen (1992) underlined as the point of contact between the student and the learning environment is the previewed learning environment depicting a relationship between these two domains. It was evident that it is the students' perceived learning environment, rather than objective learning environment that influences learning (Trigwell et al.1996). students in the same way can perceive their learning environment differently. This shows that, students' personal characteristics determine their perception about the learning environment. In this case, wherever we look Table 12, the correlation coefficient between GPA and main variables of learning approaches, we can understand clearly the difference and relationship among them. Regarding perception of learning environment  $r=.57$  ( $.57 \times .57=.3249 \times 100$ ) = 33 percent of variance of perception learning environment are shared (related) with effective learning. Therefore, when we think about learning environment, we have to look effective learning with other factors of learning environment

The relationship of the main variables of learning are clearly identified in Table 12. As you have seen in Table 12, deep approach learning and perception of learning environment are positively correlated  $r= .26$  ( $.26 \times .26 =0.0676 \times 100$ )= 6.76 = 7 percent of the variance shared (related) with each other in the same direction. This indicated that, when deep approach learning increased, as well as the perception of learning environment is increased. So, there are directly related in the same ways. Conversely, if you observed the surface approach learning correlation coefficient with deep approach learning and perception of learning environment, it is negatively correlated  $r= -.24$  ( $.24 \times .24 = 0.0576 \times 100$ )= 5.76 = 6 percent of variance shared (related) with deep approach learning. With this regard, when the surface approach learning increased, the deep approach learning is decreased. Therefore, the relationship between the two variables are in opposite direction. Similarly, the surface approach learning is negatively correlated with perception of learning environment  $r= -.32$  ( $.32 \times .32 = 0.1024 \times 100$ )= 10.24 = 10 percent of variance shared (related) with perception

of learning environment. This implies that, wherever surface approach learning is increased, the perception of learning environment is decreased. So, the relation between the two variables are in opposite direction.

This implies that, the relationship between deep approach learning and perception of learning environment positively related in the same direction. On the other hand, the relationship between surface approach learning with the deep approach learning and perception of learning environment are related in opposite direction. Therefore, when you think to develop students learning, it is necessary to adopt deep approach learning and perception of learning environment. That is the fact what you have seen in Table 12.

#### **4.2.5. Factors that Negatively Affect the Effectiveness of Teaching Learning Approaches at the College**

Factors that negatively affected the effectiveness of teaching-learning process in the college are raised in the open-ended questionnaires and interviews session. These factors are, inadequate teaching materials (inadequate reference books, lees library and internet services), limited teachers teaching experiences, lack of current and continuous research assessment in the field, unbalanced background of students, students English language deficiency, inadequate teachers in number and quality, lack of teachers capacity building facilities (like teachers workshop, experience sharing symposiums), lack of field assessment feedback particularly, the work achievement of the previous graduate students in order to use as an input to improve the teaching-learning process of the college.

In accordance with many factors have been raised by the participants, but the main problems that affected the teaching-learning process of the college are:

Weak teachers teaching experience, unbalanced students qualification (backgrounds) lack of current and continuous research assessment in the field, lack of teaching materials particularly, related with the Ethiopian military science and military doctrine, and lack of teachers capacity building are basic problems of the teaching-learning process in the college.

Having these in mind, what should the college lectures do? Ramdsen (2003) in his book entitled enhancing students learning, he suggested that, sophisticated technology are not needed to enhance students learning rather teachers skill and creativity of teaching takes the central point.

Since students` motivation, attitude, learning style and the like can be changed; why not teachers can enable students to learn up to their optimal effort. This indicated that, teachers` have to be commitment for the profession, to students learning and the society as a whole.

Teachers are pedagogies; pedagogy is going first; therefore, if teachers take appropriate actions in the teaching learning process, students will recover from their weakness. The researcher believe that, rather than blaming students about their background(unbalanced capacity among them) and language deficiency, teachers should focus on changing these limiting factors in to effectiveness one. In addition, ways of teaching and assessment with the dominancy of theory in the teaching learning process (lack of teaching experience and lack of continuos assessment in the field) are problems mentioned on the side of teachers. Even though the points are discussed directly or indirectly on the above, they are mentioned here as the possible factors challenging students in adopting effective learning approaches. Still the possible answer for these factors also geared towards teachers. They are expected to employ different techniques of teaching to include all students in the classroom and relating the content to the real life of students.

The DCSC commandants should also play its part in fulfilling the facilities needed for the teaching learning process. Lack of continuous assessment in the field and lack of facilities are the two major problems raised from the EDCSC commandants side. As it is indicated in Table 1, (18.7%) of teachers in the sample who did not take professional courses. This shows that, lack of knowlwdge in pedagogical courses is limiting teachers from adopting effective teaching approach. Lack of facilities like library, internet service, reference materials are the other hindering factors of the teaching learning process.

These are very important to look the theoretical content with practical application especially in military science courses. These are also essential in broadening students` horizon of knowledge. Therefore, these things should be given a due attention for the adoption of effective teaching learning process of the college.

### **4.3. Summary of Major Findings**

This part is summarized the main points (findings) based on the data analysis and presentations.

**4.3.1.** Basically, the objectives of the Ministry of Defense is implemented in the teaching-learning approaches of the college with its own limitations.

As Table 4 shows, the teacher-centered approaches were significantly and negatively correlated with student-centered approaches  $r=-.77$ , ( $p<0.01$ ) and negatively correlated with the seven components of good practice of teaching (see Table, 4). On the other hand, teacher centered approach was positively correlated with workload  $r = .14$ , ( $p<0.01$ ).

This implies that, when teachers developed teacher-centered approaches, and when the teaching situations are not encouraged student-centered approaches, the teacher-centered approach is increased but the student-centered, and good practice of teaching approaches are decreased. So, the relationship between these variables (teacher-centered approach with student-centered approach and good practice of teaching) are correlated in opposite direction (see Table 4). Conversely, teacher-centered approach was positively correlated with workload.

This indicates that, when teacher-centered approach is increased, workload also increased. So, the relationship between the two variables are directly grown (increased) in the same direction.

On the other hand, student-centered approach was positively correlated with good practice of teaching  $r=.16$ ,  $p<0.01$ , and positively correlated with teaching experience  $r= .15$ , $p<0.01$  .

This implies that, when student-centered approach developed, and when the teaching situations are encouraged student-centered approaches, student-centered approach and good practice of teaching will be increased in the same ways. So, the relationship between the two variables (student-centered approach and good practice of teaching) were positively correlated in the same directions (see Table 4). Conversely, the student-centered approach was negatively correlated with workload  $r=-.01$ , ( $p<0.01$ ) which is very small value almost (null) but slightly correlated in a negative direction. This indicates that, when the approach is student-centered, teachers do as a teaching facilitators to students learning. So, it does not influenced on the teachers workload. In addition to that, in the open-ended questionnaires and interviews the participants raised their opinion on the limitations of teaching approaches with related the implementation of the objectives of the Ministry of Defense.

The major limitations (lack of English language, shortage of detail understand of the Ethiopian military doctrine and military science, and limitation in the current military technological tools) are seriously influenced the teaching-learning approaches of the college, and are influenced the objectives of the Ministry of Defense also.

**4.3.2.** The teaching practice of the college had improved from time to time in terms of using teaching materials. For instance, every students have their own laptop, use of internet services when we compared to the previous, and full access of printer services can raised as a strength related with the teaching materials in order to develop good practice of teaching in the college.

Good practice of teaching is negatively correlated with workload  $r=.03$ ,  $p<0.01$ , but ( $r=.03$ ) is a very small value, it means almost (zero). As a result, it implies that, there is no relationship between good practice of teaching and workload. The relationship between good practice of teaching and teaching experience is positively correlated(  $r=.29$ ,  $p<0.01$ ), this indicated that, when teaching experience is increased, the good practice of teaching will be increased.

Table 5 shows that the predicting of effective teaching Beta values with workload and professional courses. In this case, the researcher is interested in comparing the contribution of each independent variable. Then, the researcher used the beta values with the largest contribution to the dependent variable. Thus, the largest beta coefficient is .218, which is for professional courses.

This indicated that, the variable makes the strongest unique contribution to explaining the dependent variable (effective teaching), when the variance explained by all other variables in the model is controlled for. The beta value for workload is slightly lower .192, indicating that it made less of a unique contribution to explaining the dependent variable (effective teaching). However, the two measures of control (professional courses and workload) variables did not make a statistically significant unique contribution to the dependent variable (effective teaching). Because the **significance** value of these independent variables are greater than .05.

As Table 6 shows, an independent - samples t-test was conducted to compare the good practice of teaching and effective teaching for BA/BSc and MA/MSc. There was no significant difference in scores, good practice of teaching for BA/BSc ( M=19.86, SD= 6.61) and MA/MSc (M= 24.50, SD= 14.85) at ( t= -.82, p>0.05).

Similarly there was no significant difference in scores, effective teaching for BA/BSc (M= 37.07, SD= 8.98) and MA/MSc (M= 39.00, SD= 15.56) at ( t= -.27, p>0.05).

As Table 7 shows, an independent - samples t-test was conducted to compare the good practice of teaching and effective teaching for yes/no on the professional courses. There was no significant difference in scores, good practice of teaching for yes (M= 18.85, SD= 6.78) and no (M= 27.33, SD= 7.02) at (t= -1.94, p>0.05). Similarly, there was no significant difference in scores, effective teaching for yes (M= 36.54, SD= 7.72) and no (M= 40.67, SD= 16.44) at (t= -.68, p>0.05).

Table 8 shows the teachers were divided in to three groups according to their workload (group 1: <6 crhr; group 2: 6-12 crhr; group 3: 13-18 crhr).

There was no a statistically significant difference at the  $p > .05$  level in good practice of teaching scores, for the three workload groups;  $F(2,13) = .31, p = .74$ . Similarly, there was no a statistically significant difference at the  $p > .05$  level in effective teaching scores, for the three workload groups;  $F(2,13) = .18, p = .84$ .

According to Table 9, the respondents were divided in to three groups based on their teaching experience in years (group 1:  $< 2$  yrs; group 2: 2-5 yrs; group 3: 6-10 yrs). There was no a statistically significant difference at the  $p > .05$  level in good practice of teaching scores for the three experience groups;  $F(2, 13) = .61, p = .56$ . Similarly, there was no a statistically significant difference at the  $p > .05$  level in effective teaching scores for the three experience groups;  $F(2, 13) = .10, p = .90$ .

However, in the open-ended questionnaires and interviews participants were raised their opinions in the teaching practice of the college. The main issue in the practice of teaching in the college had its own critical problems. These problems are, lack of teaching experience, lack of adequate teaching materials, weak teachers approach of teaching (more of focused to teacher-centered), and lack of current and continuous research assessment in the field are major problems of teaching practice in the college.

**4.3.3.** The learning approaches students use in the college had some improvements. Such as students focused on individual assignments, group assignments, and syndicate discussions can raised as a strength.

As Table 10 shows, an independent - samples t-test was conducted to compare the deep approach learning and surface approach learning for Dip and BA/BSc. There was a statistically significant difference in scores, deep approach learning for Dip ( $M = 27.38, SD = 2.62$ ) and BA/BSc ( $M = 28.68, SD = 1.25$ ) at ( $t = -3.65, p < 0.001$ ). This indicated that, when we think to develop deep approach learning, it is necessary to come up our qualifications. So, the relationship of the two variables were positively increased.

On the other hand, there was no a statistically significant difference in scores surface approach learning for Dip ( $M = 27.59, SD = 2.75$ ) and BA/BSc ( $M = 27.18,$

SD= 2.95) at ( $t = .64, p > 0.05$ ). As a result, when we develop surface approach learning, there was no relationship with the qualification of the students.

Table 11 indicates the students were divided in to three groups according to their GPA (group 1: 2.1 - 2.80; group 2: 2.81 - 3.55; group 3: 3.56 - 4.00). Accordingly, there was a statistically significant difference at the  $p < .05$  level in deep approach learning scores for the three GPA groups;  $F(2,139) = 20.48, p = .00$ . On the other hand, there was no a statistically significant difference at the  $p > .05$  level in surface approach learning scores for the three GPA groups;  $F(2,139) = .34, p = .71$ . This implies that, when deep approach learning is increased, the scores (the achievement level of students GPA) were increased. Therefore. There was a statistically significant relationship between GPA and deep approach learning. Conversely, there was no significant difference in GPA and surface approach learning. This shows that, when the approach is developed surface approach learning, it is difficult to think about the scores achievement level of students GPA. Because, surface approach learning by nature did not encouraged students to achieve high scores level of GPA.

In addition to that, in the open-ended questionnaires and interview sessions the participants were raised, the learning approaches of the college had its own problems. The heart of the problems are, large amount of time used in classroom lecture, limited students knowledge on the distributed handout, and weak students experience sharing within and without the college are major points of learning approaches in the college.

#### 4.3.4. The learning environment of the college had its own limitations.

Table 12 presents that all the main variables of learning approaches in considering with perceptions of learning environment in order to develop high scores of grade point average of the students. The students grade point average was significantly and positively correlated with deep approach  $r = .43, p < 0.01$  and positively correlated with perceptions of learning environment  $r = .30, p < 0.01$ , in the same way, positively correlated with effective learning approach  $r = .32, p < 0.01$ .

This implies that, those students who gained deep approach learning, perceive learning environment and effective learning as supportive of their learning are achieving high levels of GPA.

On the other hand, the grade point average was small and negatively correlated with surface approach  $r = -.05$ ,  $p < 0.01$ . This is almost (zero), this indicated that, there was no relationship between grade point average and surface approach learning. But slightly, these students who were less supportive of their learning experience earned lower grade point average.

Similarly, deep learning approaches were significantly and negatively correlated with surface approaches  $r = -.24$ ,  $p < 0.01$ . This indicated that, wherever deep approaches increased, surface approaches are decreased. On the other hand, deep approach learning was positively correlated to the perception of learning environment  $r = .26$ ,  $p < 0.01$ , also positively correlated with effective learning  $r = .41$ ,  $p < 0.01$ . This implies that, the deep learning approach was related with those variables in the same way to positive approaches.

Conversely, the surface approaches learning were significantly and negatively correlated with perception of learning environment  $r = -.32$ ,  $p < 0.01$ , and negatively correlated with effective learning  $r = -.12$ ,  $p < 0.01$ . This indicated that, when the surface learning approaches were increased, the perception of learning environment and effective learning were also decreased. So, the relationship between the two variables were negatively correlated.

Also, we can observe that, the perception of learning environment was significantly and positively correlated with effective learning  $r = .57$ ,  $p < 0.01$ . accordingly, when the perception of learning environment is increased, effective learning also increased. So the relationship between the variables were positively correlated.

In this case, wherever we look Table 12, the correlation coefficient between GPA and main variables of learning approaches, we can understand clearly the difference and relationship among them.

Regarding perception of learning environment  $r=.57$  ( $.57 \times .57=.3249 \times 100$ ) = 33 percent of variance of perception learning environment are shared (related) with effective learning.

Therefore, when we think about learning environment, we have to look effective learning with other factors of learning environment.

Deep approach learning and perception of learning environment are positively correlated  $r= .26$  ( $.26 \times .26 =0.0676 \times 100$ )= 6.76 = 7 percent of the variance shared (related) with each other in the same direction. This indicated that, when deep approach learning increased, as well as the perception of learning environment is increased. So, there are directly related in the same ways. Conversely, if you observed the surface approach learning correlation coefficient with deep approach learning and perception of learning environment, it is negatively correlated  $r= -.24$  ( $.24 \times .24 = 0.0576 \times 100$ )= 5.76 = 6 percent of variance shared (related) with deep approach learning. Accordingly, when the surface approach learning increased, the deep approach learning is decreased. Therefore, the relationship between the two variables are in opposite direction. Similarly, the surface approach learning is negatively correlated with perception of learning environment  $r= -.32$  ( $.32 \times .32 = 0.1024 \times 100$ )= 10.24 = 10 percent of variance shared (related) with perception of learning environment. This implies that, wherever surface approach learning is increased, the perception of learning environment is decreased. So, the relation between the two variables are in opposite direction.

In the open-ended questionnaires and interviews, the participants were reflected their opinions regarding the learning environment of their college. Most of their opinions were focused on the limitations of learning environment in the college. The key points raised here are, less supportive of teaching staff, absence of smooth relationship between teachers and students, less encouragement students to adopt deep approach learning, and lack of facilities to teachers capacity building are the major problems of the learning environment in the college.

4.3.5. Factors negatively affected the effectiveness of teaching-learning process in the college are raised in the open-ended questionnaires and interviews session. The core of the problems that affected the teaching-learning process of the college are:

Weak teachers teaching experience, unbalanced students qualification (backgrounds) lack of current and continuous research assessment in the field, lack of teaching materials particularly, related with the Ethiopian military science and military doctrine, the way teachers` follow teaching approaches (teacher-centered), and lack of teachers capacity building are basic problems of the teaching-learning process in the college.

#### **4.4. Discussions**

The researcher presented on the above summary will be discussed in relation to the basic points of the summary and findings. Finally, the implication of the analysis in ensuring effective teaching - learning will be discussed.

4.4.1. The objectives of the Ministry of Defense should implemented successfully, when the way teachers` teaching approaches were student-centered. Because student-centered approach is helped students to understand the given subject with related to current world views. However, the teaching approach of the college did not followed up the student-centered approaches. As a result, the implementation of the objectives of the Ministry of Defense had faced up its own limitations.

4.4.2. The teaching practice of the college may developed, if the practice of teaching approaches were conducted the seven components of good practice of teaching. But the seven components of good practice of teaching did not employed in the college. As it was, the teaching practice of the college had became its own problems.

4.4.3. The learning approaches of the college could developed, wherever, the learning approaches were focused on the deep approaches learning. However, the deep approaches learning did not carried out in the college. Accordingly, the learning approaches of the college had got its own shortages.

4.4.4. The learning environment of the college might improved, when the learning environment of the college was encouraged students` deep approaches learning. And developed students` knowledge by promoted students` learning experiences. But the learning environment of the college did not promoted students` learning experiences. Based on that, the learning environment of the college had confronted its own limitations.

4.4.5. The factors negatively affected the effectiveness of teaching-learning process of the college should decreased, if the teaching-learning situations of the college was improved. And when teachers` capacity building activities were continuously applied. In addition to that, when the college was conducted current and continuous research assessment in the field. However, the challenges affected the teaching-learning approaches of the college presented in the practice of teaching-learning process at the college.

## CHAPTER FIVE. SUMMARY, CONCLUSION AND RECOMMENDATION

In the above Chapters, Introduction, Review of related literature, Design and Methodology, and Presentation and Analysis have been presented. The last Chapter, would present Summary, Conclusions and Recommendations as follows:

### 5.1. Summary

The main purpose of the study was examining the extent to which teachers and students are adopting effective teaching and learning approaches respectively. Then, the basic questions posed in Chapter one by the researcher guided to investigate the problem.

EDCSC teachers and students were the target population of this study. The population is composed of 17 teachers and 264 students under six batches. From these, three batches were included in this study purposely.

The batches were selected as availability sampling. Finally, 16 teachers and 142 students were selected from these batches 3 commandants of the college and 3 general officers are part of the sampling. The methods of the study was mixed approaches which is more quantitative design and supplemented by qualitative design. Questionnaire, interview, and document assessment were employed to collect data from the sample. Before conducting the actual study, the questionnaire was piloted to check its reliability.

The interview was employed mainly to explore important information on the study from participants' perspective. This is used to supplement the data presented through questionnaires. Quantitative and qualitative methods were used in analyzing the data obtained. Correlation, multiple regression, independent t-test and ANOVA analysis were the statistical tools used to analyze the quantitative data. These tools were presented as follows:

**Pearson Product Moment Correlation (PPMC):** The PPMC coefficient was employed to examine the relationships between the variables treated in the study.

On teachers' questionnaire, variables like the teaching approach (TC and SC) components of good practice of teaching and teachers' background information like experience and workload were treated with this tool to see the relationship between them.

Approach to learning (deep approach learning and surface approach learning), perception of learning environment and effective learning with the grade point average of the students were also the variables whose relationship would be seen.

The teacher-centered approaches were significantly and negatively correlated with student-centered approaches  $r=-.77$ , ( $p<0.01$ ) and negatively correlated with the seven components of good practice of teaching (see Table, 4). And also, negatively correlated with the good practice of teaching  $r=-.16$ , ( $p<0.01$ ), as well as negatively and weakly correlated with teaching experience  $r=-.27$ ,  $p<0.01$ . On the other hand, teacher centered approach was positively correlated with workload  $r = .14$ , ( $p<0.01$ ).

This implies that, when teachers developed teacher-centered approaches, and when the teaching situations are not encouraged student-centered approaches, the teacher-centered approach is increased but the student-centered, and good practice of teaching approaches are decreased. So, the relationship between these variables (teacher-centered approach with student-centered approach and good practice of teaching) are correlated in opposite direction. Conversely, teacher-centered approach was positively correlated with workload  $r=.14$ ,  $p<0.01$ . This indicates that, when teacher-centered approach is increased, workload also increased. So, the relationship between the two variables are directly grown (increased) in the same direction.

On the other hand, student-centered approach was positively and weakly correlated with the seven components of good practice of teaching. And positively correlated with good practice of teaching  $r=.16$ ,  $p<0.01$ , and positively correlated with teaching experience  $r= .15$ ,  $p<0.01$ . This implies that, when student-centered approach developed, and when the teaching situations

are encouraged student-centered approaches, student-centered approach and good practice of teaching will be increased in the same ways. So, the relationship between the two variables (student-centered approach and good practice of teaching) were positively correlated in the same directions. Conversely, the student-centered approach was negatively correlated with workload  $r=-.01$ , ( $p<0.01$ ) which is very small value almost (null) but slightly correlated in a negative direction. This indicates that, when the approach is student-centered, teachers do as a teaching facilitators to students learning. So, it does not influenced on the teachers workload.

Good practice of teaching is negatively correlated with workload  $r=.03$ ,  $p<0.01$ , but ( $r=.03$ ) is a very small value, it means almost (zero). As a result, it implies that, there was no relationship between good practice of teaching and workload. The relationship between good practice of teaching and teaching experience is positively correlated ( $r=.29$ ,  $p<0.01$ ), this indicated that, when teaching experience is increased, the good practice of teaching will be increased. The relationship between workload and teaching experience is negative correlated  $r=-.60$ ,  $p<0.01$ , this implies that, when teaching experience is increased, the workload will be decreased.

The main variables of learning approaches in considering with perceptions of learning environment in order to develop high scores of grade point average of the students. The students grade point average was significantly and positively correlated with deep approach  $r=.43$ ,  $p<0.01$  and positively correlated with perceptions of learning environment  $r=.30$ ,  $p<0.01$ , in the same way, positively correlated with effective learning approach  $r=.32$ ,  $p<0.01$ . This implies that, those students who gained deep approach learning, perceive learning environment and effective learning as supportive of their learning are achieving high levels of GPA.

On the other hand , the grade point average was small and negatively correlated with surface approach  $r=-.05$ ,  $p<0.01$ . This is almost (zero), this indicated that, there was no relationship between grade point average and

surface approach learning. But slightly, these students who were less supportive of their learning experience earned lower grade point average.

Similarly, deep learning approaches were significantly and negatively correlated with surface approaches  $r = -.24$ ,  $p < 0.01$ . This indicated that, wherever deep approaches increased, surface approaches are decreased. On the other hand, deep approach learning was positively correlated to the perception of learning environment  $r = .26$ ,  $p < 0.01$ , also positively correlated with effective learning  $r = .41$ ,  $p < 0.01$ .

This implies that, the deep learning approach was related with those variables in the same way to positive approaches.

Conversely, the surface approaches learning were significantly and negatively correlated with perception of learning environment  $r = -.32$ ,  $p < 0.01$ , and negatively correlated with effective learning  $r = -.12$ ,  $p < 0.01$ . This indicated that, when the surface learning approaches were increased, the perception of learning environment and effective learning were also decreased. So, the relationship between the two variables were negatively correlated.

Also, we can observe that, the perception of learning environment was significantly and positively correlated with effective learning  $r = .57$ ,  $p < 0.01$ . accordingly, when the perception of learning environment is increased, effective learning also increased. So the relationship between the variables were positively correlated.

In this case, wherever we look Table 12, the correlation coefficient between GPA and main variables of learning approaches, we can understand clearly the difference and relationship among them. Regarding perception of learning environment  $r = .57$  ( $.57 \times .57 = .3249 \times 100$ ) = 33 percent of variance of perception learning environment are shared (related) with effective learning.

Therefore, when we think about learning environment, we have to look effective learning with other factors of learning environment.

The relationship of the main variables of learning are clearly identified in deep approach learning and perception of learning environment. Deep approach learning and perception of learning environment are positively correlated  $r = .26$  ( $.26 \times .26 = 0.0676 \times 100 = 6.76 = 7$  percent of the variance shared (related) with each other in the same direction. This indicated that, when deep approach learning increased, as well as the perception of learning environment is increased. So, there are directly related in the same ways. Conversely, if you observed the surface approach learning correlation coefficient with deep approach learning and perception of learning environment, it is negatively correlated  $r = -.24$  ( $.24 \times .24 = 0.0576 \times 100 = 5.76 = 6$  percent of variance shared (related) with deep approach learning. This implies that, when the surface approach learning increased, the deep approach learning is decreased.

Therefore, the relationship between the two variables are in opposite direction. Similarly, the surface approach learning is negatively correlated with perception of learning environment  $r = -.32$  ( $.32 \times .32 = 0.1024 \times 100 = 10.24 = 10$  percent of variance shared (related) with perception of learning environment. This implies that, wherever surface approach learning is increased, the perception of learning environment is decreased. So, the relation between the two variables are in opposite direction.

**Multiple Regression Analysis:** The independent and composite contribution or predicative capacity of teachers' background on the adoption of effective teaching approach (ETA) computed. A multiple regression was run to examine such predicative capacity of background variables on effective teaching approaches. Independent variables like experience, workload, educational level and professional courses were assumed to predict the dependent variable adoption of effective teaching approach.

The predicting of effective teaching Beta values with workload and professional courses shows that comparing the contribution of each independent variable. Then, the researcher used the beta values with the largest contribution to the dependent variable. Thus, the largest beta coefficient is .218, which is for professional courses.

This indicated that, the variable makes the strongest unique contribution to explaining the dependent variable (effective teaching), when the variance explained by all other variables in the model is controlled for. The beta value for workload is slightly lower .192, indicating that it made less of a unique contribution to explaining the dependent variable (effective teaching). However, the two measures of control (professional courses and workload) variables did not make a statistically significant unique contribution to the dependent variable (effective teaching). Because the **significance** value of these independent variables are greater than .05.

**Independent-Samples t-test:** An independent-samples-t-test is used when you want to compare the mean score, on some continuous variable, for two different groups of participants. Based on this, the researcher was compared the mean scores of two different groups of teachers on the independent variables. Group`s criteria like qualification and professional courses, each have two independent groups that is BA (BSc)/MA (MSc), and those who have taken pedagogical courses and those who did not respectively. The comparison of the two groups` mean score with dependent variables (good practice of teaching and effective teaching) and two different groups of students on the independent variables. Group`s criteria like qualification (educational level) diploma and bachelor degree holders with dependent variables (deep approach learning and surface approach learning) were computed with this tool. The assumption of the independent t-test which is equal variables of groups on the treated variables were considered during the comparison.

An independent - samples t-test was conducted to compare the good practice of teaching and effective teaching for BA/BSc and MA/MSc. There was no significant difference in scores, good practice of teaching for BA/ BSc (M=19.86, SD= 6.61) and MA/MSc (M= 24.50, SD= 14.85) at ( t= -.82, p>0.05). Similarly there was no significant difference in scores, effective teaching for BA/BSc (M= 37.07, SD= 8.98) and MA/MSc (M= 39.00, SD= 15.56) at ( t= -.27, p>0.05).

Similarly, an independent-samples t-test was conducted to compare the good practice of teaching and effective teaching for yes/no on the professional

courses. There was no significant difference in scores, good practice of teaching for yes ( $M= 18.85$ ,  $SD= 6.78$ ) and no ( $M= 27.33$ ,  $SD= 7.02$ ) at ( $t= -1.94$ ,  $p>0.05$ ). Similarly, there was no significant difference in scores, effective teaching for yes ( $M= 36.54$ ,  $SD= 7.72$ ) and no ( $M= 40.67$ ,  $SD= 16.44$ ) at ( $t= -.68$ ,  $p>0.05$ ).

And also an independent - samples t-test was conducted to compare the deep approach learning and surface approach learning for Dip and BA/BSc. There was a statistically significant difference in scores, deep approach learning for Dip ( $M=27.38$ ,  $SD= 2.62$ ) and BA/BSc ( $M= 28.68$ ,  $SD= 1.25$ ) at ( $t= -3.65$ ,  $p<0.001$ ). This indicated that, when we think to develop deep approach learning, it is necessary to come up our qualifications. So, the relationship of the two variables were positively increased.

On the other hand, there was no a statistically significant difference in scores surface approach learning for Dip ( $M= 27.59$ ,  $SD= 2.75$ ) and BA/BSc ( $M= 27.18$ ,  $SD= 2.95$ ) at ( $t= .64$ ,  $p>0.05$ ). As a result, when we develop surface approach learning, there was no relationship with the qualification of the students.

However, on the open-ended questionnaires teachers and students reflected their opinion regarding qualifications and professional courses of the teachers as a whole. These opinions emphasized on the teachers capacity building activities and developing rich teaching experience. As teachers reflected on the open-ended questionnaires, the teaching experience of the teachers were not enough. Accordingly, the teaching learning processes have its own limitations based on the qualifications and professional development of the instructors. Therefore, teachers' capacity development could more to bring about effectively utilize the skills, knowledge and expertise activities, in bringing to the effective teaching learning process.

In addition to that, several teacher respondents commented the lack of teacher development activities as a problem to them at their teaching-learning process. Besides, when the researcher interviewed teachers, they reflected the problem of teacher development activities. Now a days there is a positive movement in order to develop the capacity of the teachers. But it was late.

**One Way Analysis of Variance (ANOVA):** The one way analysis of variance was used to compare the mean score of three independent groups. The categories of workload, and teaching experience with the dependent variables (good practice of teaching and effective teaching) for teachers and grade point average was used as a group comparing on dependent variables (deep approach learning and surface approach learning) for students.

The teachers were divided in to three groups according to their workload (group 1: <6 crhr; group 2: 6-12 crhr; group 3: 13-18 crhr). There was no a statistically significant difference at the  $p>.05$  level in good practice of teaching scores, for the three workload groups;  $F(2,13) = .31, p=.74$ . Similarly, there was no a statistically significant difference at the  $p>.05$  level in effectice teaching scores, for the three workload groups;  $F(2,13) = .18, p=.84$ .

Similarly, the respondents were divided in to three groups based on their teaching experience in years (group 1: <2 yrs; group 2: 2-5 yrs; group 3: 6-10 yrs). There was no a statistically significant difference at the  $p>.05$  level in good practice of teaching scores for the three experience groups;  $F(2, 13) = .61, p = .56$ . Similarly, there was no a statistically significant difference at the  $p>.05$  level in effective teaching scores for the three experience groups;  $F(2, 13) = .10, p=.90$ .

On the other hand, in the open-ended questionnaires, some teachers and most of students reflected their opinion on the workload and teaching experience of the teachers and its relevance to good practice of teaching and effective teaching. Accordingly, they noted that the teachers teaching practices were not enough to use detailed military experiences from the continental and global military dynamism perspectives.

Similarly, the teaching experience of the teachers was found to be inadequate. Particularly, they did not used broadly and clearly, in Ethiopian military experiences based on teaching materials and control assessments in order to develop the Ethiopian military doctrine and military science. Besides, the instructors of the college are small in number, forced with high workload.

Therefore, not only qualification but also high workload influenced the teaching-learning process of the college.

In addition to that, in the interview questions participants were raised their opinions in terms of the effectiveness of teaching-learning approaches in the college. The participants were emphasized on the limitations of teaching-learning processes in the college. So the effectiveness of teaching in order to bring good practice of teaching had its own limitations, that lack of availability teaching materials, limited teaching experiences, lack of current research in the field, weak teachers approaches of teaching and assessment, the dominancy of theory in their teaching and the given group assignment and project did not relate more with the current military situation on the ground.

The students were divided in to three groups according to their GPA (group 1: 2.1 - 2.80; group 2: 2.81 - 3.55; group 3: 3.56 - 4.00). Accordingly, there was a statistically significant difference at the  $p < .05$  level in deep approach learning scores for the three GPA groups;  $F(2,139) = 20.48, p = .00$ . On the other hand, there was no a statistically significant difference at the  $p > .05$  level in surface approach learning scores for the three GPA groups;  $F(2,139) = .34, p = .71$ . This implies that, when deep approach learning is increased, the scores (the achievement level of students GPA) were increased.

Therefore There was a statistically significant relationship between GPA and deep approach learning. Conversely, there was no significant difference in GPA and surface approach learning. This shows that, when the approach is developed surface approach learning, it is difficult to think about the scores achievement level of students GPA. Because, surface approach learning by nature did not encouraged students to achieve high scores level of GPA.

## **5.2. Conclusions**

Based on the findings and discussions made so far, the following conclusion have been drawn:

1. Basically, the objectives of the Ministry of Defense is implemented in the teaching-learning approaches of the college with its own limitations.

The major limitations (lack of English language, shortage of detail understand of the Ethiopian military doctrine and military science, and limitation in the current military technological tools) are seriously influenced the teaching-learning approaches of the college, and are influenced the objectives of the Ministry of Defense also.

This is all based on the fact that the major limitations of the teaching approaches of the college was negatively influenced the implementation of the objectives of the Ministry of Defense. Because when the teaching approaches of the college was student-centered, the limitations may reduced in number and strength.

2. The teaching practice of the college had improved from time to time in terms of using teaching materials. For instance, every students have their own laptop, use of internet services when we compared to the previous, and full access of printer services can raised as a strength related with the teaching materials in order to develop good practice of teaching in the college.

However, in the open-ended questionnaires and interviews participants were raised their opinions in the teaching practice of the college. The main issue in the practice of teaching in the college had its own critical problems. These problems are, lack of teaching experience, lack of adequate teaching materials, weak teachers` approach of teaching (more of focused to teacher-centered), and lack of current and continuous research assessment in the field are major problems of teaching practice in the college.

There are some problems on the teaching practice in the college. These problems are negatively affected the improvement of good practice of teaching in the college. Wherever the college was conducted current and continuous research assessment in the field, it might be improved the practice of teaching approaches of the college.

3. The learning approaches students use in the college had some improvements. Such as students focused on individual assignments, group assignments, and syndicate discussions can raised as a strength.

Students approach to learning is to some extent determined by their past learning experience and their teachers teaching approaches. Accordingly, the students' background, such as lack of qualification (unbalanced capacity among them), language deficiency are negatively affected the students learning approaches. Based on that, the practice of the most students of the college are focused in the exam oriented or more gravitate to surface approach learning.

In addition to that, the learning approaches of the college had its own problems. The heart of the problems are, large amount of time used in classroom lecture, limited students activities on the distributed handout, and weak students experience sharing within and without the college are major points of learning approaches in the college.

The learning approaches of the college had its own limitations. These limitations are negatively forced students knowledge respectively. If the learning approaches of the college was deep approach learning, the limitations may decreased.

4. The learning environment of the college had its own limitations.

The main variables of learning approaches in considering with perceptions of learning environment in order to develop high scores of grade point average of the students.

In the open-ended questionnaires and interviews, the participants were reflected their opinions regarding the learning environment of their college. Most of their opinions were focused on the limitations of learning environment in the college. The key points raised here are, less supportive of teaching staff, absence of smooth relationship between teachers and students, less encouragement students to adopt deep approach learning, and lack of facilities to teachers capacity building are the major problems of the learning environment in the college.

The learning environment of the college had its own problems. These problems are negatively affected the teaching-learning process of the college.

When the college was applied deep approach learning and encouraged students' learning experiences, these problems might be solved.

5. Factors negatively affected the effectiveness of teaching-learning process in the college are raised in the open-ended questionnaires and interviews session. The core of the problems that affected the teaching-learning process of the college are:

Weak teachers teaching experience, unbalanced students qualification (backgrounds) lack of current and continuous research assessment in the field, lack of teaching materials particularly, related with the Ethiopian military science and military doctrine, the way teachers' follow teaching approaches (teacher-centered), and lack of teachers capacity building are basic problems of the teaching-learning process in the college.

Some factors are negatively affected the effectiveness of teaching-learning process of the college. Wherever teachers' capacity building and students' background were improved, these problems would be reduced.

### **5.3. Recommendations**

Having the relationship between variables in the study and the possible problems raised, the researcher has forwarded the following recommendations.

1. To achieve the objectives of Ministry of Defense, the commandants and teachers should focus on the development of language skills of the students, prepare appropriate document the Ethiopian military doctrine and military science as a basic teaching materials. And the current military technological tools, such as, use of computer, internet service, different military softwares (about wargame simulations), and develop teaching approach (student-centered) should be focused in the teaching-learning process in the college.

2. To improve the effectiveness of teaching, the teachers and commandants of the college should add an adequate teaching materials, develop teachers' teaching experience by continuous on job training systems and focus on the current and continuous research assessment in the field.

3. To develop deep approach learning, the commandants and teachers of the college should focus on the recruitment of the candidates, and focus on the encouragement of effective learning approaches by ensuring active students participation in the teaching-learning process in the college.

4. To bring up appropriate learning environment, the commandants, teachers, and students of the college should develop common teaching-learning values that enable, to cope with the learning environment as interesting. And the teaching-learning process should be developed by continuous assessment (evaluation). And apply deep approach learning and encourage students' learning experiences in order to develop good perception of learning environment in the college.

5. To solve the problems of the teaching-learning approaches in the college, the major solutions should be developing the capacity building of the commandants and teachers in the college. That means, focus to teachers' teaching experience. Similarly, focus in all-round teacher qualifications, in order to compete in the current teaching-learning situations. And the commandants should facilitate the teaching-learning processes, in order to achieve effective teaching in the college successfully.

Finally, the commandants and teachers should focus to conduct further continuous research assessment in the areas of teaching-learning approaches in the college in order to avoid these critical problems of teaching.

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APPENDICES

Appendix A

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

INSTITUTE OF EDUCATIONAL RESEARCH

**Questionnaire for Instructors.**

The objective of this questionnaire is to collect information regarding the challenges and prospects of teaching learning approaches in the Ethiopian Defence Command and Staff College. The questionnaire is designing to assess the approaches adopted by instructors in their teaching and their practices in the teaching learning approaches. The success of this study will highly depend on the quality of your response and I hope you will give accurate and honest responses to the items presented. Your response will be kept confidential and used only for academic purpose. I would like to express my heartfelt thanks and appreciation for your time and sincere cooperation to fill this questionnaire.

**Direction.**

- a) No need of writing your name.
- b) Put "x" in the spaces provided in front of each items. select your choice from the alternatives.
- c) The questionnaire has **four** parts.

**Part One. Background Information**

- 1. Campus -----Department/Section-----
- 2. Educational Level: BA/BSc  MA/MSc
- 3. Teaching experience in year: < 2  2-5  6-10
- 4. Have you taken pedagogy course? Yes  No
- 5. Rank: Major  Lieutenant Colonel  Colonel
- 6. Years of service in the Army: 15-20  21-25  26-30
- 7. Age : 40-45  46-50  51 and above
- 8. workload in credit hour per week: < 6  6-12  13-18

**Part Two. Items related to Instructors` Approach to Teaching**

This part of the questionnaire has 14 items interms of your conception of teaching approaches and your usual ways of teaching. There are five alternatives for you and their values as indicated below.

1. Strongly disagree 2. Disagree 3. Uncertain 4. Agree 5. Strongly agree

	Items	1	2	3	4	5
1	I feel that my course has to be the only an opportunity for students.					
2	I know all answers what students ask questions in my subject.					
3	In my class teaching I focus on delivering of what I know.					
4	In my subject, I focus on highlight points as information.					
5	I make available opportunities to students.					
6	I structure well my teaching contents.					
7	I set time to students to discuss among themselves.					
8	I deliberately provoke time for conversations.					
9	I deliberately proke time for debates.					
10	I emphasis students to develop their own learning.					
11	I encourage my students to develop their existing knowledge .					
12	I present various military concepts for students.					
13	I see students generate their own notes rather than copy mine.					
14	I look things properly as helping students.					

### Part Three. Items related to Effectiveness of your Teaching Practices

This part of the questionnaire has 19 items to which on day-to-day practices of your teaching. please fill the extent you apply them in the teaching learning approaches. There are five alternatives for you and their value as indicated below.

1. rarely 2. sometimes 3. partially 4. frequently 5. always

	Items	1	2	3	4	5
15	I encourage my students to play constructive role.					
16	I try to identify students various military experiences.					
17	I encourage my students to work together in their learning.					
18	I employ group discussions.					
19	I employ collaborative projects in and out side the class.					
20	I try to check the contents of group assignments.					
21	I try to check the contents of individual assignments.					
22	I give quizzes to my students.					
23	I give final exam to my students.					
24	I relate my teaching with the actual field military training.					
25	I ask my students to give me constructive feedback.					
26	I return students exam within a week with full corrections.					
27	I try to discuss with students who have less exam results.					
28	I look a clear alignment with the expect learning outcomes.					
29	I try to create conducive environment for learning.					
30	I give an opportunity to students to rise their work.					
31	I give actual military problems to my students to solve them.					
32	I treat an integral assessment as a component of my teaching.					
33	My assessment tools have focused on improving military science and leadership skills.					

**Part four. Your View interms of the Teaching Learning Approaches**

1. Please list your most commonly used teaching approaches?

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2. What teaching related factors negatively affect the learning of your students?

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3. How teachers (including you) enhance effective assessment in the teaching learning process?

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4. What do you suggest for the improvement of teaching learning approaches at your college?

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*Thank you!*

Appendix B

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDY

INSTITUTE OF EDUCATIONAL RESEARCH

**Interview Guiding Questions for Selected Instructors**

The purpose of this interview is to gather information from teachers regarding major issues raised in the questionnaire in order to support interpretation of the data that were gathered through the questionnaire.

1. What are the most frequently employed teaching approaches at the college?
2. What efforts do you think enhance effective approaches of teaching ?
3. What factors negatively affect the teaching learning approaches?
4. What do you suggest to improve the teaching learning approaches at your college?

*Thank you!*

## Appendix C

ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDY

INSTITUTE OF EDUCATIONAL RESEARCH

### Questionnaire for Students.

The objective of this questionnaire is to collect information regarding the challenges and prospects of teaching learning approaches in the Ethiopian Defence Command and Staff College. The questionnaire is designing to assess the approach adopted by students in their learning and their views in the learning approaches. The success of this study will highly depend on the quality of your response and I hope you will give accurate and honest responses to the items presented. Your response will be kept confidential and used only for this academic purpose. I would like to express my heartfelt thanks and appreciation for your time and sincere cooperation to fill this questionnaire.

### Direction.

- a) No need of writing your name.
- b) Put “√” in the space provided in front of each item. Select your choice from the alternatives.
- c) The questionnaire has **four** parts.

### Part One. Background Information

1. Batches: 2<sup>nd</sup> batch  5<sup>th</sup> batch  6<sup>th</sup> batch
2. Educational level: Diploma  BA/BSc
3. Rank: Major  Lieutenant Colonel  Colonel
4. Years of service in the Army: 15-20  21-25  26-30
5. Age: 35-40  41-45  46-50
6. GPA: 2.1-2.80  2.81-3.55  3.56-4.00

**Part Two. Items related to Students` approach to Learning.**

This part of the questionnaire has 15 items interms of your attitude towards your learning and your usual ways of studying. Studing will be depend on what students need their own style and the course well interesting.

Please choose one most appropriate response to each question.

There are five alternatives for you and their value as indicated below.

**1. Rarely 2. Sometimes 3. Partially 4. Frequently 5. Always**

	Items	1	2	3	4	5
1	I work hard at my studies because I find materials interesting.					
2	I come to class with questions in mind that I want answering.					
3	I test my self in military science and leadership topics.					
4	I find new military topics interesting.					
5	I learn from different sources even out side the course outlines.					
6	I emphasis to group and individual assignments.					
7	I fell that virtually any subject can be interesting.					
8	I look to find out the security strategy studies courses.					
9	I focus on the leadership courses.					
10	I study only restricted on the course outlines.					
11	I memorize key sections rather than understand them.					
12	I use my time to study the supportive courses.					
13	My interest is to find out the operations and tactics courses.					
14	My focus is to pass the exam while do a littile work or study.					
15	My focus is to find out the warfare studies courses.					

**Part Three. Items related to Students` Assessment of their College.**

This part of the questionnaire has 12. Here, you assess the whole practices of your college teaching staffs and courses rather than single course or one instructor. There are five alternatives for you and their value as indicated below.

**1. strongly disagree 2. disagree 3. undecided 4. agree 5. strongly agree**

	Items	1	2	3	4	5
16	My instructors do good practices related with their courses.					
17	The teaching staff make a real effort to understand difficulties.					
18	The teaching staff of my college are motivated me.					
19	The teaching staff make it clear our obligations and rights.					
20	The teaching staff give me constructive feedback in my study.					
21	The teaching staff are working hard.					
22	The provide courses are develop my problem solving skills.					
23	The given courses are improve my military skills and knowledge.					
24	The given courses are help me to develop and able my work plan.					
25	The providing courses are help me to able to do as a team work.					
26	I fell confident to tackle various military problems.					
27	I satisfy the teaching learning approaches of my college .					

**Part Four. Your View interms of the Teaching Learning Approaches**

1. Please list your most commonly used approaches of learning?

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2. What learning related factors negatively affect the teaching approaches?

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3. How students (including you) enhance effective learning approaches?

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4. What do you suggest for the improvement of teaching learning approaches at your college?

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*Thank you!*

## Appendix D

ADDIS ABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDY  
INSTITUTE OF EDUCATIONAL RESEARCH

### Interview Guiding Questions for Selected Students

The purpose of this interview is to gather information from teachers regarding major issues raised in the questionnaire in order to support interpretation of the data that were gathered through the questionnaire.

1. What are the most frequently employed learning approaches at the college?
2. What efforts do you think enhance effective approaches of learning?
3. What factors affect the teaching learning approaches?
4. What do you suggest to improve the teaching learning approaches at your college?

*Thank you!*

Appendix E  
ADDIABABA UNIVERSITY  
SCHOOL OF GRADUATE STUDY  
INSTITUTE OF EDUCATIONAL RESEARCH

**Interview Guiding Questions for Commandant of the College and Selected General Offices**

The purpose of this interview is to gather information regarding the teaching learning approaches of the college.

1. To what extent the objective of the Ministry of Defense are implemented in the teaching- learning approaches in the college?
2. To what extent commandants of the college facilitate effective teaching learning approaches?
3. How the commandant use accurate assessment in the teaching learning process of the college?
4. What factors negatively affect the effectiveness of teaching learning approaches?
5. What do you suggest to improve the teaching learning approaches of the college?

*Thank you!*

## Appendix F

### The use of the Questionnaire

	Scales and sub scales	Item number
For Teachers	<b>1. Scales for approach to teaching</b>	<b>1-14</b>
	Teachers centered intention	1,2,3
	Teacher centered strategy	4
	<b>Teacher centered approach</b>	<b>1,2,3,4</b>
	Student centered intention	5,6,7,8,9
	Student centered strategy	10,11,12,13,14
	<b>Student centered approach</b>	<b>5,6,7,8,9,10,11,12,13,14</b>
	<b>2. sub scales of good practice of teaching</b>	<b>15-33</b>
	Student instructor contact	20,21,22,23
	Encourage cooperation among students	17
	Encourage active learning	15,30,31
	Prompt feedback	26,27
	Time on task	24,33
	Communicating high expectations	25,28
	Respect diverse talents and ways of learning	16,18,19,29,32
	Good Practice of Teaching	15,16,17,18,19,20,21,22,23,24,25,26,27,28,29,30,31,32,33
For Students	<b>3. sub scales for approach to learning</b>	<b>1-15</b>
	Deep motive	1,2,3,4
	Deep strategy	5,6,7
	<b>Deep approach</b>	<b>1,2,3,4,5,6,7</b>
	Surface motive	8,9,10
	Surface strategy	11,12,13,14,15
	<b>Surface approach</b>	<b>8,9,10,11,12,13,14,15</b>
	<b>4. sub scales for learning environment</b>	<b>16-27</b>
	<b>Perception of learning environment</b>	<b>16-27</b>

**Note:** ETA is obtained by reversing the score of teachers on TC and summing up with the score on SC while, ELA is obtained by reversing students score on surface approach and adding to the score on deep approach.

## Declaration

I hereby declare that this study is my original work done under the guidance of Dr. Firdissa Jebessa, and has not been presented for any degree to any college and that all relevant sources used are duly acknowledged.

Name: Araya Teweldemedhn

Signature: \_\_\_\_\_

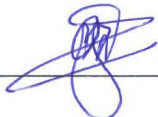


Date of submission: 20 June 2012

This Thesis has been submitted for examination with my approval as a university advisor

Name: Firdissa Jebessa (Ph.D)

Signature: \_\_\_\_\_



Date: 20 June 12