# Instructional Practices versus Application of Active Learning Methods and Instructional Technology in Hawassa College of Teacher Education

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**Abstract**: Education is a tool for bringing about some kind of social, economic, political, and technological changes. The attention given to the effective delivery of education today is more impressive than ever before. As much as education contributes for the advancement of technology, technology also plays a decisive role for the improvement of educational practices by changing the mode of delivery of instructions and changing the roles of teachers and students. As a result, this research was conducted on active learning and integration of educational technology in the instructional practices of Hawassa College of Teacher Education. The main objective of the research was to explore the extent to which the educational practices of Hawassa College of Teacher Education comply with modern educational practices, perspectives and technologies. For this purpose, both quantitative and qualitative research approaches were employed. Students, instructors, the vice dean (Educational Material Supply, Dissemination, and Technology Integration Core Processor(EMSDTICP)) of the college, Information Technology (IT) coordinator, and GEQIP and IQPEP linkage coordinator of the college and SNNPRS Education Bureau TDP coordinator provided the data for research. The techniques for data collection included classroom teaching-learning process observation, questionnaire and interview. The findings indicated that the system and actual practices of the College predominantly remain traditional. The teaching-learning system was rarely supported by modern educational technologies; and the roles of teachers and students showed the prevalence of the traditional instructional practices (teacher-centered instruction).

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**Introduction**

Education is the base for social, economic, political, and scientific changes and developments. Because of its vitality in socio-economic transformation, nations (especially developed countries) give unreserved support for education and they work towards its appropriate provision to the generation starting from the lowest level. Equipping and backing instruction with modern technology is the primary target of schools and colleges (Tomei, 2008). As a result, from time to time, education has shown advancements in its theoretical debates, technological usage, and practical applications. The modern education system has overtaken the traditional one (which considers teachers as experts expected to do everything in classrooms). In traditional system, students are believed to be novice to whom teachers are expected to infuse any kind of knowledge and skills. In modern system, on the other hand, such type of beliefs and practices are not dominant on instructional process. Today, the advancement of technology, particularly information communication technology (ICT), and multimedia presentation have shifted the mode of delivery of education, and the roles of teachers and students in the instructional processes (Tomei, 2008; Mikre, 2011). In this regard, UNESCO (2002a) stated the shift as follows:

> The role of the teacher will change from knowledge transmitter to that of learning facilitator, knowledge guide, knowledge navigator and co-learner with the student.… Students will have greater responsibility for their own learning in this environment as they seek out, find, synthesize, and share their knowledge with others. ICTs provide powerful tools to support the shift to student-centred learning and the new roles of teachers and students (P.22).

According to the new approach to learning, students are no more merely dependent on teachers and classroom instructions. Students

can explore and construct their own knowledge through their exposure to ICT (Mikre, 2011) and different instructional media in and outside classrooms. Glenn (2008, p. 5) mentioned Susan Henderson, vice president of institutional advancement, New York City-based Queens College, stated, "Technology allows students to become much more engaged in constructing their own knowledge."   UNESCO has identified effective models and strategies which make modern instructional process more attractive and effective. These include web-based lessons, multimedia presentations, tele-computing projects[1], and online discussions. ICT diminishes the dependence of students on classroom instruction and boosts learning outside of a classroom. Using multimedia in classroom highly arouses the motivation of learners (UNESCO, 2002a). It enhances interactive learning in a classroom.

It is now more than a century ago since modern secular education was introduced to Ethiopia. It was first established during the reign of Menilik II in 1908. Since then – albeit not vastly and uniformly – a lot of changes has come about in the sector. Today, the need to eradicate anguished centuries of poverty forced the country to take immediate measures in producing skilled labor force because education has an irreplaceable role in ending poverty (The World Bank, 2005; Saint, 2004; MoE, 2008).  Hence, more than ever before, several children are getting the chance to go to school, at least at the primary level. Within the last two decades alone, the attendance of children has increased remarkably and conspicuously (MoE, 2008).

However, the educational practices are not without challenges and problems. Among others, financial constraints, ever rising number of

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[1]Tele-computing tools include email, electronic mailing lists, electronic bulletin boards, discussiongroups, web browsers, real-time chatting, and audio- and video-conferencing. MoE (2011) *Educational Statistics Annual Abstract*

students, lack of modern educational resources, and poor practices of instructional methodologies are some of the major challenges to the deliveryof quality education in Ethiopia (Serbesssa, 2006).

Despite the rhetoric of student-centered approach and advocacy for ICT (Saint, 2004; Mikre, 2011), the reality of our education system is predominantly characterized by traditional and classical systems. Talk and chalk methods still dominate the instructional system (Serbessa, 2006). Although it is believed that educational technologies are pillars to modern educational practices (TGE, 1994), research indicates that because of the inadequate availability of infrastructure and the stubbornness of teachers to didactic teaching practice (Serbessa, 2006; Hare, 2007), the educational practices, in Ethiopia, have not yet transcended the traditional practices.

Education is expected to be one of the areas that sought transformation in Ethiopia. To this end, educational institutions are required to introduce modern systems and facilities which open opportunities for teachers and students to engage in instructional process in such a way that modern education system demands. This ultimately ensures quality education and produces a generation which could develop domestic science and technology. Today, equipping educational institutions, particularly the College of Teacher Education, with the necessary instructional methods and educational technologies is not optional for Ethiopia; it is rather a compulsory duty (TGE, 1994). Unlike other educational institutions, the educational practices of the College are expected to comply with modern systems of instructional process. The Government is striving to achieve quality education at all levels of educational practices. For the attainment of quality education in primary schools, teacher education colleges are the most accountable. This implies that improving the quality of educational practices in the colleges is not optional.

## Statement of the Problem

One of the aims of the 1994 Education and Training Policy was to ensure the quality education by training effective teachers and integrating educational technologies in educational practices (TGE, 1994). The underpinning pedagogical approach adopted in the policy was participatory or student-centered instructional approach aimed at developing students' inquisitive ability and creativity. This requires equipping schools with well trained and qualified teachers. To this end, Colleges of Teacher Educations (CTEs) were given primary responsibility of producing qualified teachers for primary schools (MoE, 2002; MoE, 2016). As a result, the number of CTEs in Ethiopia increased to 37 to realize the desired levels of quantity and quality of primary school teachers (MoE, 2016). Hawassa College of Teacher Education (HCTE) is one of these colleges that took its share of responsibility of the training of qualified teachers. It took the responsibility of training and equipping teachers with the pedagogical skills and other qualities required from them. Graduates from the college are required to demonstrate that they have adequate knowledge and skills of participatory teaching methods and use of instructional technologies and any other necessary instructional resources. For this achievement, the quality of educational delivery of the college is fundamental. However, there is an overwhelming concern over the application of participatory instructional methods and integration of educational technologies in the teaching-learning practices of the college. Unless the college can effectively integrate its educational practices with active learning methods and educational technologies, the ultimate negative impact of it creates on the quality of education at both college level and primary education level is not difficult to predict.

This research explores the extent to which the academic practices of HCTE comply with modern instructional system. It investigates the extent to which its instructional processes at the college are supported by modern multimedia systems, modern views of learning and ICT.

Accordingly, the study addresses the following research issues: the dominating participants in the classroom instruction - students or teachers and the extent of the integration of educational technologies into instructional practices to enhance active learning.

*Objective of the research*

The general objective of this research is to investigate the extent of practices of active learning and the integration of modern educational technologies in the instructional practices of HCTE. Specifically, the study was designed:

- to explore the nature of teacher-student relationship; that is, the extent to which participatory instructional methods are integrated in the teaching learning practices of the College to enhance student participation and learning; and
- to assess the extent to which the instructional process of the college is supported by modern educational technology.

It is believed that this research has various advantages for the College and other related institutions. It will indicate the gaps between the educational practices of the college and modern educational system. This in turn enables the college to take any possible measures to modernize its instructional process and to ensure the quality of education in the college. This research may also motivate other researchers to make further exploration in the area.

*The Research Setting*

Hawassa College of Teacher Education is one of the 37 colleges of teacher education in the country (MoE, 2015). It is found in Sidama Zone of Southern Nations, Nationalities and Peoples Regional State (SNNPRS). It was founded as Awassa Teacher Training Institute (TTI) in 1976 to train primary school teachers and later in 1995/6 upgraded to college. After 2004/2005 academic year, the College recruited students who completed grade 10. The level, afterwards called 10+3, is

equivalent to former higher education diploma. Although colleges were once part of higher education system under the responsibility of Ministry of Education until 1998 E.C. now the structure is withdrawn from higher education and the regional governments own the responsibility of running them (MoE, 2015). HCTE is now training more than twenty thousand teachers in four programs - regular, summer, evening and weekend. The weekend program is given at Yirgalem, Aleta Wendo and Bensa centers. The primary duty of the college is to train teachers for primary schools. The educational programs are grouped into five streams -Language stream, Mathematics and Natural sciences steam, Aesthetics and Physical Education stream, Social Science stream, and Education stream. Based on educational approaches, the programs are classified as linear, specialist and generalist. Formerly, these were classified as linear and cluster programs (MoE, 2016). Students who are trained under linear program are those who will teach at second cycle level (5-8grade), which includes Physics, Chemistry, Biology, Physics laboratory, Chemistry laboratory, Biology laboratory, and some other recently added programs such as Special Needs Education and Adult Education. Programs which are included under specialist program include Amharic, English, Civics, Physical Education and other local languages. The generalist program, on the other hand, is aimed at training teachers for first cycle elementary grades (1-4grades), which include social science, and Mathematics and Natural Science (MNS). Nevertheless, the programs are not yet stable. There have been frequent changes and lack of clarity over what the curriculum of the college of teacher education should look like and what contents it should include.

*Operational Definitions*
*Educational practices*: the teaching and learning process which is actually practiced in the college by using different instructional materials.

*Modern education system*: the educational practice which is based on current instructional approaches which advocate the involvement of students in the learning process through discovering or innovation, creating, and constructing; and the use of technologies which facilitate students' independent and anywhere learning which include ICT, computer, laboratory facilities, and any other important facilities (UNESCO, 2002).

*Modern educational technology*: the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources (Salkind, 2008, p.313, quoted in the Association for Educational Communications and Technology (AECT).

*Traditional education system*: the old system of teaching and learning process which relies on teacher-centered approaches in which students' active involvement in learning process is overlooked (UNESCO, 2002).

*Integration of educational technology*: supporting instructional processes with technologies which enhance students' practical learning and creativity.

**Method**

*Research Approach*
The research techniques employed included both quantitative and qualitative methods. The selection was based on the research question and nature of data required by the research.  And the research data required were both quantitative and qualitative ones.

*Research Participants and Sampling Techniques*
In education, at least three groups have direct involvement in the educational process of a given institution/school - teachers, students and administrators. The quality of education is determined by how each one of these involves himself/herself within the system. Therefore, this

research has involved each one of them in the process of data collection. First, eight departments were selected purposively to include students from the various fields - Biology, Physics, Mathematics, Chemistry, Mathematics and Natural Science (MNS)[2], Social Science, English and Amharic. And then, one hundred (100) students were selected from 1st, 2nd, and 3rd year students from selected departments using availability sampling method. Since five students did not fully complete the questionnaire, their responses were discarded. As a result, the total number of students who fully participated in this research was 95 (males 74 and females 21). The number of females was small because in natural science departments their numbers tend to be quite few. Besides, six classes were selected to conduct observation using availability sampling method, which means selecting classes to make observations while teachers were teaching. The courses taught were Chemistry, Mathematics, English, Sidama language, History and Psychology. Moreover, based on the availability of teachers in their office, 40 instructors were selected using availability sampling method. Among these, eight of them did not return the questionnaire and one did not complete it. So, the total number of instructors who participated in this research was 31. One lab assistant and one Information Technology (IT) coordinator were also selected purposively. Among the administrators, the vice dean of the Educational Material Supply, Dissemination, and Technology Integration Core processor of the College (EMSDTICP)) was selected purposively because he was the one who had adequate information in relation to the usage of technology for teaching learning purposes. Furthermore, stakeholders who had active role in the practices of the college were selected using purposive sample method since they had direct role in the educational practices of the College. These were Teacher Development Program director from the education bureau of the region and General Education Quality Improvement Package

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[2] MNS is a program in which students are trained in all natural sciences and mathematics to teach 1st cycle program (1-4grades). In recent reformulated program, it is grouped under generalist program, i.e., the training is not specific to a given field of study

(GEQIP) and Improvement of Quality of Primary Education Program (IQPEP) linkage coordinator of the college. The main reason for including GEQIP and IQPEP coordinators as a research participant was because GEQIP and IQPEP were government programs based on which foreign aid was provided for the College of Teacher Education.

*Instruments and Methods of Data Collection*
Integrating different and appropriate types of techniques, which encourages triangulation of results (Berg, 2004), would enhance the validity of the results of a given research. The methods of data collection tools employed in this research were observation, unstructured interview, and questionnaire. Participant observation was mainly employed to record the actual practices of classroom instruction and to identify the available multimedia facilities in and outside of regular classrooms. Six classroom observations were conducted while teachers were teaching different types of courses mentioned under research participants. In those observations, the methods that the teachers employed in their instruction and their usage of instructional technologies were recorded. The research also employed interview method to collect data from the following respondents: the EMSDTICP of the college, one IT coordinator, one lab assistant, GEQIP & IQPEP linkage coordinator and the representative from Education Bureau. Each one of them was interviewed in his/her own respective office. Furthermore, the research also used questionnaire to gather data from students and teachers. It particularly collected data in relation to the knowledge of instructors on learning processes, instructors' usage of various kinds of multimedia in teaching-learning process, views of instructors on the importance of instructional technologies, and views of students on the participatory teaching methods and their reflection on the actual instructional practices.

*Methods of data analysis*

In order to analyze the data, both quantitative and qualitative methods were applied. First, quantitative data were organized into tabulation form.  Afterwards, qualitative data were transcribed and organized based on themes. The quantitative method was used to analyze the data gathered through questionnaire. The type of statistical tool used for this purpose was percentage. Qualitative analysis was also used to analyze qualitative data, which was gathered through interviews and participant observation.

## Review of Related Literature

*Education and modern educational technologies*

The advancement of educational technology has challenged the beliefs of the hegemonic traditional learning theories which gave prime privilege for teachers in championing the instructional practices (UNESCO, 2002a). For almost half a century (since the beginning of 1900), behavioral theories dominated the educational practices in both theory and practice.  In those theories, learners were considered as passive receptacles of what teachers taught. Because of the disregard they have to the role of mind in human survival, behaviorists positioned learners in the same status as that of noncreative and non-explorative animals (Groom *et al*, 1999). UNESCO (2002a, p.16) noted behaviorists' knowledge transmitting approach as, "…the teacher is the expert and the dispenser of knowledge to the students. It is largely a 'broadcast' model of learning where the teacher serves as the repository and transmitter of knowledge to the students."

The over dominance of traditional learning was further elaborated by UNESCO (2002a, p.21) "The traditional view of the learning process is typically teacher-centered, with teachers doing most of the talking and intellectual work, while students are passive receptacles of the information provided."

Nevertheless, behaviorists' dominance over pedagogical approaches was challenged by the emergent paradigms in cognitive science, and latter, computer and information communication technologies. The rise of famous cognitive psychologists, Jean Piaget and Lev S. Vygotsky in particular challenged the prime influence of behavioral science in curriculum design and instructional processes. According to cognitive psychologists, human beings are not mechanical beings to be manipulated by something external factor that is beyond their control (Groom et al., 1999). Everyone is born with intellect which enables him/her to explore, create, solve problems and construct knowledge of his/ her own. The most important element in learning is how one processes information. This view eventually led to the recently emerging constructive and other related approaches which claim that learning is what the learners construct by themselves (UNESCO, 2002a; Pritchard, and Woollard, 2010; Oliver, 2002). In other words, "the essence of constructivist theory is the idea that learners must individually discover and transform complex information if they are to make it their own." (Slavin, 2006, p.243).

It is within such a theoretical framework that this research plans to view the role of educational technology in the learning process. Alongside growing views on the role of cognitive system in constructive learning, the advancement of computer technology and ICT have also influenced the ways in which educators have to see the pedagogical approaches (Mikre, 2011). According to McCann *et al* (1998) and Tomei (2008), educational technology include computer-based learning, broadcast television, video and audio tapes, LCD projectors (Power Point slides), CD-ROM and multi-media classroom technology, electronic mail and use of internet for on-line teaching and learning, electronic library searches, new digital cameras, and so forth. These technologies replaced today, albeit not totally put their role at end, traditional learning approaches and older educational materials and technologies (such as overhead projectors, flipcharts, paper copies as handouts, chalkboard and whiteboard) which gave supremacy for teachers in the

educational context (Tomei, 2008). Today, it is becoming unthinkable to speak about education in the absence of educational technologies because these technologies are the integral parts of, or underpinning, the pedagogical design and instructional practices of the day. They are serving not as additional imputes but rather as basic requirements. The values that educational technology adds in education are transcending what this research is trying to set. It is impossible to make pragmatic constructive learning approach (learner-centered instruction) without those technologies. In line with this, Serbessa (2006, p.130) stated as follows:

> Student-centered learning is more aligned with the lifelong learning skills needed in the workforce of the information age. With the rapid changes in history and culture, textbook-based and teacher-led learning has become obsolete. Instead, technology resources are replacing these obsolete approaches to create an interactive learner-centered classroom.

In order to magnify the role that technology plays in constructivist learning approach, Judson (2006) as quoted in Tomei (2008, p.5) stated, "Teachers who use technology are often the constructivist-minded teachers who maintain dynamic student-centered classrooms where technology is a powerful learning tool."

One of the areas in which technology has brought significant changes is in shifting the roles teachers and students have in the teaching-learning process. Students are given more responsibility in their learning than ever before (Oliver, 2002). In fact, as to Tomei (2008, p.5),  "This phase is more of a transformation of traditional teaching since it requires a shift in roles placing primary emphasis on the learner…. this transformation changes the classroom in that it defines new teacher roles and heightens student interaction."

In almost a similar statement, UNESCO also claims how educational technology marginalized the dominance of traditional views of learning and altered the roles of teachers and students as:

> The new technologies challenge traditional conceptions of both teaching and learning and, by reconfiguring how teachers and learners gain access to knowledge, have their potential to transform teaching and learning processes. ICTs provide an array of powerful tools that may help in transforming the present isolated, teacher-centered and text-bound classrooms into rich, student-focused, interactive knowledge environments (UNESCO 2002a, p.15-16).

As indicated above, the change technology has brought to education is not only the change in the–roles of teachers and students, but also changes in methodologies. One-way traditional teaching approach (i.e., teacher-centered) is less preferred in contrast to interactive, collaborative, and independent learning approaches. (McCann et al., 1998; Oliver, 2002; UNESCO, 2002b). This shows learning goes beyond what a teacher does; and also the dimension of the context of learning is far beyond classroom. McCann et al (1998, p. 17) argued, "The classroom is no longer limited to a physical room but is extended through communication and information technologies to include a virtual classroom distinguished by an open, collaborative learning environment."

The most acceptable way of learning created is e-learning[3] which is facilitated by digital technology.  The didactic way of instruction is challenged and its significance in education is devalued by the emerging approaches and technologies which give highest priority for

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[3]"E-learning refers to the use of ICTs to enhance and support teaching and learning processes" (Sife *et al.*, 2007 p. 58)

learners in the teaching-learning process. Because of changes in the roles of both teachers and students, the setting of learning has also been changed. The technology opened opportunities for students to construct their own knowledge at any time, at any place and with any person and/or object they interact with. Teachers, who were once considered to be experts and sole disseminators of knowledge (UNESCO, 2002a; Oliver, 2002) lost the hierarchal position they had in instructional practices. The sources of learning, place of learning and time of learning are broadened in wider context. Technology also made easier the availability of educational resources (McCann et al., 1998; Tinio, 2002). Learners can access learning materials from digital technologies (Computer and World Wide Web). In addition, technology enables teachers to give feedback as quickly as possible; and make follow-up of the progress of learners without any restriction of time and place.

The contributions that educational technology renders to education are not only these. Researchers echoed that it is unthinkable to ensure the quality of education and to be competent in the 21st century without modern education technology (Tomei, 2008; UNESCO, 2002b). McCann et al pointed out the ways in which it enhances the quality of education in the following words -*technologies provide increased opportunities for interaction which can usefully provide for joint problem solving, shared learning and enhance face-to-face contact"* (1998, p.17).

ICT has enabled educational institutions to evaluate themselves against related institution, and that in turn heightened competitions among these institutions. This increased call for greater collaboration among higher education institutions which eventually directs the institutions toward realizing the quality of education through competition.

Furthermore, educational technology instigates the motivation of learners. The advent of digital technology has solved plenty of

educational problems. In a form of simulation and videos, it is possible to observe and learn things which were beyond the scope of older learning technologies. This makes learning more pragmatic and interesting for the learners (Tinio, 2002).

## Results

### Instructional Practices

The awareness teachers have toward active learning is vital for the practicability of students' participatory learning. This research has, therefore, explored the degree of awareness Hawassa College of Teacher Education (HCTE) instructors have toward active learning.

## Table 1: Awareness of instructors on active learning

| Items | Right | Wrong | I don't know | Total |
|---|---|---|---|---|
| Learning is restricted to teacher-student interaction | 2 (6.5%) | 24 (77.4%) | 1 (3.2%) | 27 (87.1%) |
| Classroom is the only possible way to learn | 1 (3.2%) | 30 (96.8%) | 0 | 31 (100%) |
| Classroom instruction must be dominated by what teachers do | 1 (3.2%) | 29 (93.5%) | 1(3.2%) | 31 (100%) |
| The primary role of students is to receive knowledge from their teachers | 4(12.9%) | 26 (83.9%) | 0 | 30 (96.8%) |
| Much of the time in the classroom must be used by students | 22 (71%) | 6 (19.4%) | 2(6.5%) | 30 (96.8%) |
| Teachers are expected to impart knowledge | 18(58.1%) | 12 (38.7%) | 0 | 30 (96.8%) |
| Students can learn without interaction with teacher | 17(54.8%) | 14 (45.2%) | 0 | 31 (100%) |
| Teachers are expected to tell everything to students | 2 (6.5%) | 28 (90.3%) | 1 (3.2% | 31 (100%) |
| The main role of teachers is to facilitate conditions than to tell | 29(93.5%) | 0 | 1(3.2%) | 30 (96.8%) |
| Learning is what students gain out of their practice | 24(77.4%) | 5 (16.1%) | 0 | 29(93.5%) |
| Knowledge is obtained through what students construct than what teachers tell | 29(93.5%) | 2(6.5%) | 0 | 31 (100%) |

According to Table 1, most of the participants (77.4%) believe that learning is not restricted to teacher-student interaction, and is not telling and receiving of knowledge; it is rather what students can construct through their own practice in and outside of classroom. The main role of teachers is viewed as facilitating conditions for students while they are learning. In this regard, almost all participants (93.5%) agree that the duty of teachers is not to tell; it's rather to facilitate. Nevertheless, the table shows the inconsistence of responses of the participants. Despite their belief that knowledge construction is through

students' practices, more than half (58.1%) of the teachers replied that teachers are expected to impart knowledge to their students. In addition, although 77.4% of the participants believe that learning is not confined to teacher-student interaction, a large number of them (45.2%) – albeit not more than those who replied 'right' – replied that students cannot learn independently. This implies that there is clear understanding of the essence of active learning among the teachers.

*Practices of Active Learning in the College*

In this part of the research, the data related to implementation of active learning in the college are presented and analyzed.

**Table 2: Responses of Teachers and Students towards the frequency of students' engagement in class**

| Teachers' Response | | | | |
|---|---|---|---|---|
| Item | Very often | Rarely | Not at all | Total |
| How often do you engage students in practical work in your teaching-learning process? | 16 (51.6%) | 14 (45.2%) | 0 | 30 (96.8%) |
| **Students' Response** | | | | |
| Items | Teachers | Students | Total | |
| Who should use more time in the class? | 15 (18.5%) | 66 (81.5%) | 81 (100%) | |
| Who are practically using more time in the class | 57 (70.4%) | 24 (29.6%) | 81 (100%) | |
| **Students' Response** | | | | |
| Item | Theory | Practical | Total | |
| On what areas the actual instructional practices mainly focuses on | 68 (71.6%) | 27 (28.4%) | 95 (100%) | |

According to Table 2, nearly half (45.2%) of teacher participants engage students in practical activities very rarely. In relation to this,

students were also asked. Accordingly, 71.6% of them replied that teachers use more time in the classroom rather than engaging them in practical learning activities. Classroom observations also reveal similar results. Except in few classes, in most of the classes the researcher observed, teachers teach while students listen or do activities for only a few minutes. Teachers replied that they engage students 'rarely' as a result of the following common factors:

- large class size/ number of students;
- time constraint to finish courses since implementing active learning takes time;
- lack of teachers' commitment, influence of teachers' traditional beliefs;
- students' negligence, lack of motivation, readiness, background, attitude toward active learning, lack of awareness
- students' being inactive;
- the curriculum is not designed in a student-centered approach;
- lack of educational resources which help teachers to engage students in practical activities;
- lack of experience in using student-centered approach; and
- shortages of technology aids such as LCD, computers, and other resources that enhance students' activities and engagement.

As indicated above, the most commonly mentioned factors by most participants for their inability to use active learning are large number of students, time constraint, shortage (or absence) of facilities which helps for practical learning, and students' lack of readiness to engage in practical learning. It is, of course, a paradox to realize participatory learning where the teacher-student ratio is not proportional. Active learning requires appropriate guidance and evaluation of every student's endeavor in and outside of a classroom. Frankly speaking, it is unthinkable to expect from teachers to evaluate every student while

they are forced to hold large number of classes (at least five classes with 45 students each).

Most of the participants consider active learning as time taking. Viewing active learning in such a way itself constrains the possibility of realizing student-centered approach. Within the context of appropriate teaching-learning environment, active learning does not take time. It rather increases the time for learning. Such a belief usually arises because teachers consider that students cannot learn independently so that they try to tell everything to students. This notion implies that there is still a problem in understanding the very essence of active learning.

Some of the participants also view that some courses are not applicable in active learning method. One of the participants, for instance, noted *that:* "At a higher level, using student-centered is very difficult because of the nature of the course (modern physics) (it) cannot be student-centered because it mainly deals about ideas than practice." This view also indicates the gap in the notion of active learning. In such kinds of beliefs, teachers are considered as experts whereas students are novices to whom everything has to be told. This does not open any room for students creative and discovery learning. Based on the interview conducted with lab assistants and one of the higher officials of the college, the researcher tried to find out whether there is the culture of discovering and developing new things by either teachers or students; however, it was not apparently visible in the college. Today let alone college students, some primary school students are forming something new through their own learning.

Although some instructors argue that students lack awareness about active learning (as depicted in the lists of reasons under Table 2), the evidence obtained from students refute the claim. Most of the students reasoned out that students have to learn through practice. Most of them argue that since modern philosophy of learning is student-centered, students must cover much of the classroom tasks by

themselves. For instance, some of the students reflected their views supporting active learning as stated in the responses for open ended questions listed here under (each point was directly taken from a different individual). Indeed, there were also others who reflected similar ideas, but the following responses are taken as example.

- Because by using more time, students have to do lab activities and class activities to get appropriate knowledge;
- Because if students practice by their own, they develop self-confidence; the role of teacher is to show the way;
- Because it is said the modern educational practice must be student-centered;
- If the teacher shows the way, students can do by their own;
- Since the modern instructional practice is student centered, students have to use more time;
- Because rather than teacher I believe students effort is very important so they have to use more time;
- If a student independently practices most of the time, his/her knowledge increases and he/she becomes successful
- It helps for students' future practice and enhances their creativity;
- If students collaboratively work, they develop their own knowledge;
- Because student means explorer as a result more time is needed for students;
- Because if the teacher talks, students may not understand, thus, the teacher has to allow students to participate by using the student-centered approach;
- Because students have to practice and explore by using more time, this enables them to give attention to education;
- Because student's understanding ability develops if and only if a student learns by his/her own effort; thus it would be better if a student uses more time.

Therefore, it is difficult to take for granted that students lack awareness (or background) or interest towards active learning. Arousing the motivation of the learners is one among the requirements expected from a teacher. If a teacher makes his/her lesson attractive, there is no reason why students do not actively take part in their learning.

Real classroom practices according to the classroom observation indicate that the old model of instructional process, which is dominated by what teachers do, is still perpetuating. Except in few classes, teachers are teaching whilst students are mainly listening to the teacher. The activities given to students in classes do not transcend group activities and individual reading. Evidences from students also show that teacher dominated instruction is a customary practice of the college. 83.2% of students agree that more time in the class must be used by students. This implies, students have the awareness that learning occurs if students are given more time to practice by their own. However, in reality students have not yet been given the opportunity to learn through practice. The need to engage students in practical activities is not common. Teachers are relying on developing theoretical knowledge of students without giving rooms for students' practice. In relation to this, 45.2% and 71.6% (Table 2) of instructors and students respectively agree that the teaching-learning process of the college is theory based learning.

Laboratory based instructions themselves are not doing anything other than fulfilling the formality of laboratory practice. Although laboratory equipment are relatively adequate and modern, the trend of using them for practical learning is unsatisfactory. The interview made with one of the lab assistants reflects the actual practice of the laboratories in the college. She stated the situation as follows:

> Students do not spend their time practicing in the laboratories because they do not even consider lab activities as learning. Most of them even do not have motivation to practice. Absence of credit hour (chr) for lab activities (except Physics which has only 1chr) and lack of appropriate feedback on lab reports contribute for students' low motivation toward lab activities.

The value that laboratory has on the instructional process is unarguable. It is within laboratories that most students develop ground for explorations and innovations. Laboratory experiment means not mere repetition of what had been done by scientists. Instead, it has to pave ways for new findings. This seems not the case in HCTE. Laboratories are there just to serve the formality.

In short, despite the fact that both instructors and students believe in student-centered based learning, the reality is contradicting with their belief. There is a gap between awareness and actual practice. Although further effort has to be done to enhance instructors' knowledge of student participatory learning, it has to be noted that the inability to put the student-centered approach into practice is not mainly due to lack of awareness. Lack of commitment from teachers and students, and absence of adequate technological infrastructures are challenging its practical implementation.

*Integration of Educational Technology in the College*

**Table 3: Views of Instructors on the importance of educational technologies**

| Items | Strongly Disagree | Disagree | I don't Know | Agree | Strongly Agree | Total |
|---|---|---|---|---|---|---|
| Enhance self-learning | 1(3.2%) | 1(3.2%) | 1(3.2%) | 12(38.7%) | 16(51.6%) | 31(100%) |
| Enable students to learn anytime and anywhere | 1(3.2%) | 3(9.7%) | 2(6.5%) | 8(25.8%) | 16(51.6%) | 30(96.8%) |
| Increase the role of teachers in using more time in the class | 4(12.9%) | 13(41.9%) | 3(9.7%) | 5(16.1%) | 4(12.9%) | 29(93.5%) |
| Enable students to access any source of information | 2(6.5%) | 2(6.5%) | 1(3.2%) | 13(41.9%) | 13(41.9%) | 31(100%) |
| Enable students to access variety of learning resources | 0 | 0 | 0 | 13(41.9%) | 17(54.8%) | 30(96.8%) |
| access information immediately | 1(3.2%) | 0 | 3(9.7%) | 10(32.3%) | 17(54.8%) | 31(100%) |
| Encourage collaborative learning | 2(6.5%) | 0 | 2(6.5%) | 12(38.7%) | 14(45.2%) | 30(96.8%) |
| authentic and updated information | 1(3.2%) | 0 | 4(12.9%) | 7(22.6%) | 19(61.3%) | 31(100%) |
| Access online libraries | 1(3.2%) | 0 | 4(12.9%) | 12(38.7%) | 13(41.9%) | 30(96.8%) |
| Encourage teacher centered instruction | 9(29%) | 12(38.7%) | 2(6.5%) | 7(22.6%) | 1(3.2%) | 31(100%) |
| Direct access to the source of information | 1(3.2%) | 0 | 1(3.2%) | 14(45.2%) | 14(45.2%) | 30(96.8%) |
| Better contact between teacher and students | 1(3.2%) | 3(9.7%) | 3(9.7%) | 15(48.4%) | 8(25.8%) | 30(96.8%) |
| Reduce time on many routine tasks | 1(3.2%) | 3(9.7%) | 3(9.7%) | 12(38.7%) | 12(38.7%) | 31(100%) |
| Better access to children with disabilities | 0 | 4(12.9%) | 12(38.7%) | 6(19.4%) | 9(29%) | 31(100%) |
| Identify and solve problems immediately | 1(3.2%) | 3(9.7%) | 7(22.6%) | 11(35.5%) | 9(29%) | 31(100%) |
| Enhance interactive learning in the class | 0 | 3(9.7%) | 2(6.5%) | 16(51.6%) | 10(32.3%) | 31(100%) |
| Enhance practical learning | 0 | 1 (3.2%) | 3 (9.7%) | 17(54.8%) | 10(32.3%) | 31(100%) |
| Ensure quality of education | 0 | 0 | 6(19.4%) | 13(41.9%) | 12(38.7%) | 31(100%) |

Table 3 demonstrates the extent of agreement of teacher participants on the importance of modern educational technologies in the instructional processes. Accordingly, responses indicate that a large number of participants disagreed (41.9%) at the view that educational technology can increase the role of teachers in the class. Instead, 51.6% agreed and 32.3% strongly agreed that it enhances interactive learning in the classroom. More than 80% agreed and strongly agreed that it enhances collaborative learning among students. Participants also believed (25.8% of them agreed and 51.6% of them strongly

agreed) that educational technologies open the opportunity for students to learn at anytime and anywhere either independently or collaboratively. Furthermore, the contribution that educational technology has in accessing information and resources is also another area of importance which most of the participants agreed and strongly agreed on. The table also shows, 80.6% agreed and strongly agreed on the importance that educational technology has in determining quality of education.

It is possible to conclude that it is debatable how important educational technologies are in the teaching-learning process. Without using them, it is hardly possible to realize effective active learning in the educational practices.

*Usage of educational technologies in the College*

## Table 4: Frequency of using instructional technologies

| Items | Not at all | Rarely | Sometimes | Very often | Total |
|---|---|---|---|---|---|
| **Instructors' Responses** | | | | | |
| LCD projector | 24 (77.4%) | 4(12.9%) | 1(3.2%) | 2(6.5%) | 31 (100%) |
| Overhead projector | 27 (87.1%) | 2(6.5%) | 1(3.2%) | 1(3.2%) | 31 (100%) |
| Online discussion | 27(87.1%) | 1(3.2%) | 1(3.2%) | 2(6.5%) | 31 (100%) |
| Online resources | 19(61.3%) | 3 (9.7%) | 7(22.6%) | 2(6.5%) | 31 (100%) |
| Giving activity through e-mail | 30 (96.8%) | 1(3.2%) | 0 | 0 | 31 (100%) |
| Giving feedback through e-mail | 29 (93.5%) | 1(3.2%) | 0 | 0 | 30 (96.8%) |
| Web-based lesson | 28 (90.3%) | 1(3.2%) | 1(3.2%) | 1(3.2%) | 31 (100%) |
| Audiovisual based learning | 21 (67.7%) | 1(3.2%) | 8 (25.8%) | 1(3.2%) | 31 (100%) |
| **Students' Responses** | | | | | |
| How often do your teachers use the following instructional media? | Not at all | Rarely | Sometimes | Always | Total |
| Power point based presentation | 60(74.1%) | 19(23.5%) | 2 (2.5%) | 0 | 81(100%) |
| Using e-mail to give information and assignments | 79 (97.5%) | 2 (2.5%) | 0 | 0 | 81(100%) |
| Giving feedback through e-mail | 79 (97.5%) | 2 (2.5%) | 0 | 0 | 81(100%) |
| e-learning based lesson | 80 (98.8%) | 1(1.2%) | 0 | 0 | 81(100%) |
| Using other modern media | 56 (69.1%) | 20(24.7%) | 4 (4.9%) | 0 | 80(98.7%) |

Almost all of the media of instruction mentioned in the table are not used for teaching purpose except few teacher participants (22.6%) replying that they sometimes use online resources and 25.8% of them sometimes use audiovisual. The remaining technologies have not yet been integrated in the instructional practices of the College. Technologies – which are arguably highly important for collaborative learning, anytime and anywhere learning, and independent learning,

such as online discussion, e-mail based giving information, assignment and feedback, and so on – are almost not used. The data from student participants also show almost the same results as that of instructors. In all types of instructional technologies stated in Table 4, most of students agreed that they were not used for instructional purpose by teachers. Of course, a few students, 23.5% and 24.7% replied that power point-based presentation and other modern technologies, respectively, were used rarely for the teaching-learning purpose. The technologies referred to be used are not in the regular classrooms, but rather in computer lab and natural science laboratories. Their usage in regular classroom is almost totally absent; let alone using them, the terms themselves are strange for most of the students. The classroom observations also proved that the instructional materials most commonly used by instructors were chalkboard, duster, chalk, and handout.

Of course, there were efforts made to facilitate and capacitate the College with educational technologies although it was not swift enough. Instructors were able to get access to computer and ICT in their offices. According to the interview conducted with Educational Materials Supply, Dissemination and Technology Integration Core Processor (EMSDTICP) of the college, computer labs are being established. Currently, the number of computer labs has increased to four. However, their services have been limited to teaching common courses. Students did not get access to them for general learning purpose.  None of the regular classrooms has any kind of modern educational facilities. The classrooms have not been organized in the way it is possible to use multimedia for instructional purpose. As a result, teachers were forced to depend on the 'old models' of teaching materials. This trend does not allow them to discharge the responsibility of independent learning among students.

For the question the researcher asked about the extent that the educational practices of the College harnessed to the modern technologies, the EMSDTI Core Processor replied that it was at the

beginning phase. However, he claimed, "There are bases that enable the instructional process to be modern but the commitment of instructors is low; things which are not fulfilled and may obstruct them are very few." In relation to this, the researcher also asked main coordinator of teachers' education administrative development from the South Regional State Education Bureau. He stated that education is modern only if it is supported by research; and equipped with modern educational facilities, such as plasma, computer, LCD projector, ICT, and so on. In equipping colleges with these technologies, the bureau has provided unreserved support according to him. He said:

> Colleges are autonomous to get financial and material support from World Bank through GEQIP in relation to science materials, Teacher Development Program (TDP), organizing English Language Improvement Center (ELIC), and furnishing colleges with Information Technology (IT) as far as they prepare well developed plan and provide reasonable justification for that.

The linkage coordinator of GEQIP and IQPEP of HCTE also mentioned, "C*lassrooms are not arranged in the way they support real educational practices. GEQIP and IQPEP are voluntary to give any kind of material and technical support if the college provides well developed plan and able to defend and justify it.*"

For the question the researcher posed to the participant from education bureau about the reasons  instructions are still depend on old model instructional material like blackboard instead of using technology-based instruction, he shortly replied, "W*ho would prohibit them.*" They can get any kind of material with any amount if the colleges are committed to furnish their educational practices with modern educational materials, according to him. The only thing expected of them is to develop a justifiable plan. HCTE linkage coordinator similarly stated, "Whenever we ask for financial support for trainings and school linkage professional support, GEQIP can release any amount we ask provided

that our plan is convincing. They can do the same in material support if planners come up with justifiable plan."

Nevertheless, the interviewees (linkage coordinator of HCTE, technology expansion coordinator, TDP coordinator from education bureau) stressed that it is not only the absence of educational facilities that handicapped the practicability of modern educational practices but also the low commitment of instructors and their attitude toward active learning. According to them, the teaching-learning process of the college is not yet backed with research, particularly action research though every instructor is expected to do that.

In a nutshell, the teaching learning system of Hawassa College of Teacher Education is yet far behind from using technology assisted instruction. The 'old learning materials', which do not contribute much to students' independent learning, are leading the instructional processes. This made students to expect everything from their teachers. Teachers, handouts and certain reference books are the only sources of information for them. Therefore, it is possible to infer why most students lack self-confidence and are dependent on teachers rather than trying to explore and learn by themselves.

## Conclusion

It is discussed in this research that in order to be modern, education has to meet the yardsticks of educational qualities. The underpinning modalities of educational practices of the day are being equipped with educational materials that modern educational systems require and putting students at the center of the instructional processes. Students are not passive receptacles of knowledge. They are rather constructors and co-constructors of knowledge together with their teachers who provide the basis and guidance for them. In light of this, HCTE is not yet in a position to fulfill the standards of modern educational practices. The realization of student-centered and student creativity does not transcend rhetoric. The old traditions in which teachers have dominant

roles over the system may indicate that they want to maintain their traditional authority within the system. The instructional practices of the college are still keeping its status quo of teacher dominated instruction. The awareness level of instructors on active learning is not as adequate as expected as the number of instructors who believe that students cannot learn independent of the teacher and that knowledge is imparted by teachers is not small. The commitment of instructors in engaging students in practical learning is not that much satisfactory.

The integration of modern educational materials is almost at its beginning phase. Computer labs and science laboratories are also being established. The expansion and equipping of science laboratories is the exemplary work of the college. Nevertheless, the services of those laboratories are confined to course fulfillment of given credit hours. Computer labs are also serving the same purpose. They are not as such used to facilitate teaching and learning processes of the college. Almost nothing has been done in furnishing classrooms with modern educational materials and in integrating classroom teaching-learning process with those materials. Blackboard, chalk and handout are the major customary instructional materials being used in classrooms. Financial problem is not the major constraint for inadequate availability and use of modern educational technologies in the college. There is lack of clear vision and commitment on how to transform the college to a center of exploration by furnishing it with the requisite educational technologies and adopting effective participatory learning methods.

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