The practice of modularized curriculum in higher education institution: Active learning and continuous assessment in focus

Wondifraw Dejene*

Abstract: The purpose of this study was to assess the implementation of modularization in Ethiopian higher education institutions with particular reference to the instructional process (active learning and continuous assessment). Mixed research design was employed. Three universities were focus of the study. Three hundred and eight undergraduate students and 144 instructors were selected using stratified and simple random sampling. Data were collected using questionnaire and semi-structured interview. The study found out that the instructional process in the modularized program is below the expectation. The teaching-learning process was found to be predominately teacher-centered and limited to PowerPoint presentations. Students were still found as an outsider in the process of knowledge construction playing a recipient role. It was also found that continuous assessment has continued to be perceived and practiced as continuous testing in which students sat for tests and quizzes frequently with no written and/or oral feedback. Large class size and shortage of time (i.e., nature of block teaching approach) have been found to be challenges for making the instructional process effective in helping the students achieve the objectives stipulated in the curriculums. Alternative teaching strategies that fit to large class size and further staff development activities that address misconceptions on active learning and continuous assessment were suggested.

Subjects: Higher Education; Classroom Practice; Curriculum Studies

About the Author

Wondifraw Dejene is an assistant professor in Curriculum and Instruction serve as a teacher-educator in Dire-Dawa University, Dire Dawa, Ethiopia. His educational background begins with B.Ed degree in pedagogical Science in 2006 from Bahir Dar University. He earned his second degree (Master of Arts degree) in Educational research and development from Addis Ababa University on July, 24 2010. He has got his PhD from Bahir Dar University in Curriculum and Instruction on January, 2019. His research interests include, but are not limited to, secondary teacher education, multicultural education, teacher beliefs, teacher-educators’ classroom practice, and gender equality in education.

Public Interest Statement

This study revealed that the implementation of modularized curriculum in Ethiopian higher education institutions is still problematic. Though modularized curriculum requires active engagement of students in the process of knowledge construction, they were found to be passive receiver whereas the instructors dominate the instructional process—lecturing and providing a ready-made knowledge to students. Besides, the study emphasized that instructors misconceived continuous assessment and students are not getting feedback on their learning progress. Accordingly, a continuous professional development program that targets on improving instructors’ classroom practice is a need for attaining the objectives for which modularized curriculum is designed.
Keywords: active learning; continuous assessment; instructional process; modularization

1. Introduction

These days, there is a move toward modular approach to curriculum implementation. The approach has drawn a special attention in most nations’ education system particularly in technical and vocational education and higher education (Malik, 2012). MoE [Ministry of Education] (2013) of Ethiopia asserted that there has been an increasing focus on modular approach of learning in higher education institutions. Modular approach is an emerging trend educational thinking that shifts traditional method of instruction to an outcome-based learning paradigm.

Modularization is based on the principle of dividing the curriculum into small discrete modules or units that are independent, nonsequential, and typically short in duration. Students accumulate credits for modules which can lead to the qualification for which a specified number of credit point is required. According to Hornby, as cited in Yoseph and Mekuwanint (2015) and Malik (2012), module is a unit of work in a course of instruction that is virtually self-contained and a method of teaching that is based on the building up of skills and knowledge in discrete units. Therefore, a module is a course that together with other related courses can constitute a particular area of specialization. Each unit or module is a measured part of an extended learning experience leading to a specified qualification(s) “for which a designated number, and normally sequence, of units or modules is required.”

Moreover, French (2015) and Kamakshi (2011) stated that in contrast to the linear degree program which comprises a sequence of subjects, modularized degrees tend to be made up of stand-alone, independent units that can be undertaken in different orders and accumulated at different speeds. It is associated with the notion of delivering knowledge in “bite-sized” pieces and, therefore, lends itself to time-shortened and intensive modes of delivery (French, 2015). Modular approach to teaching enables the learner to have control over his/her learning and accepts greater responsibility for learning. It demands greater maturity on the part of the learner, the modules is more appropriate for more mature students. In modular approach, all the capabilities required to perform are closely related. Sets of tasks are grouped together. For instance, capabilities required managing an institution’s finances which includes generation of finances, allocation, accounting, and monitoring can be grouped together and form a module called financial management (Sejpal, 2013; Goldschmidt & Goldschmidt, 1973).

A modular system of higher education curriculum, according to Ali, Ghazi, Khan, Hussain, and Faitma (2010), is largely a response to the very growing sectors of business, industry, and consumers’ choice in general. It emphasizes more explicate outcomes in relation to each small part of the degree, rather than the more broadly defined “course” in general. As opposed to most traditional curriculum designs, modular design gives greater student autonomy in constructing the programs and greater range of entry gates and exit points (Ali et al., 2010). These authors further explained that modularity enables the design of the curriculum to meet students’ needs, thus moving the curriculum from the supply side (what universities want to deliver) to the demand side (what students and their employers identify as what they want). Modular instruction meets the needs of today’s students more adequately than traditional instruction both with respect to the quality of learning and the content.

Moreover, the very essence of modularization is that students are at center of the teaching–learning process. It calls for a classroom environment in which students are actively engaged in knowledge construction process and a shift in the role of instructor from knowledge transmitter to a facilitator of students’ learning. Not only that, modularization requires continuous follow-up and assessment of students’ progress throughout the module/course. The practice of effective continuous assessment allows instructors making adjustments to teaching and learning in response to assessment evidence. This also helps students receive feedback about their learning with advice on
what they can do to improve. In other words, the implementation modularized curriculum shall ensure the realization of active learning and continuous assessment in higher education institutions of Ethiopia.

Cognizant of this, Ministry of Education (MoE) of Ethiopia, in the effort of reengineering of the teaching–learning core process, has proposed modularization as a best way of curriculum implementation and production of competent global graduates (MoE [Ministry of Education], 2013). Accordingly, the modular curriculum was introduced in 2013 across higher education institutions of Ethiopia (Yoseph & Mekuwanint, 2015). It was designed focusing on the competencies that the graduates need to attain by integrating knowledge and skills and aspire to effectively prepare professionals for diverse job opportunities in the areas where the country needs skilled professionals. Having this in mind, this study intends to assess the practice of this approach with a particular focus on the instructional process. To this end, the researchers raised the following leading questions:

1. How is the implementation of active learning carried out in the universities?
2. How is continuous assessment implemented in the universities?
3. What are the key factors, if any, that challenge the implementation of active learning and continuous assessment?

1.1. Conceptual framework

1.1.1. Student-centered teaching approach and modularization

Modular teaching is concerned for each student as an individual with his/her own special aptitude and interest, goal of helping each student to think for himself, and allowing the individuality to each learner. The emphasis must be on the one–one students with unique abilities, aspiration, and influencing experiences and, again to provide quality education, the teacher must personalize and individualize the instructional program. When a teacher devoted to individual learning, he/she finds time for personal discussion with students and giving them individual help. The individual learning may help in developing many notable and self-reliant characters, and in much more modern ways, students enjoy periods in which they pursue their interests and satisfy their curiosities (Manlove & David, 1985).

Creativity, flexibility, and lifelong learning are requirements needed to be successful in a real world. According to Struyven, Dochy, and Janssens (2010), in order for students to acquire these skills, schools need to be organized around the learner not the teacher. Educational reforms have emphasized the concept of student-centeredness as one of its threads. Student-centered learning takes the idea of what is to be learned from what the teacher desires to teach and directs instruction to what students need to learn. Classrooms are now considered as “a center of intellectual inquiry,” allowing students to form ideas, take risks, make mistakes, critically think, fix mistakes, and learn how to solve problem from those mistakes. Interaction is no longer between teachers to student; it now needs to be multidirectional. Students, in the process of learning, will interact with teachers, peers, parents, and even professionals outside of the school building in order to seek and understand their learning (Ali et al., 2010; Martin, 1997).

1.1.2. Continuous assessment in modular program

Assessment is a central element in the overall quality of teaching and learning in higher education. Assessment is the process by which the instructor collects information about students that he/she will use to make educational decisions about them. Assessments are not the decisions, rather they are sources of information to the decisions. The information the instructor obtained from assessments can help him/her make these decisions with more accuracy and efficiency (Black, Harrison, Lee, Marshall, & William, 2003; Bennett, 2011; Black & Dylan, 2009). Rengel (2009) also found that continuous assessment helps to improve students’ retention of content learned. Isoksson (2007)
maintain that an integrated assessment system (that includes continuous assessment) allows students to test themselves and review their own progress. Regular assessment can also help to motivate and assist students to become more independent learners.

Rushton (2005) stressed that continuous assessment enhances deep learning if there is plenty of feedback at regular intervals, and all assessments need to have clear assessment criteria which are known by the students before they undertake the assessment activity. When frequent assessment is combined with regular feedback, it will improve students’ learning (Rushton, 2005). Well-designed assessment procedures set clear expectations, establish a reasonable workload, and provide opportunities for students to self-monitor, rehearse, practice, and receive feedback. Learning outcomes that have been indicated in the modules should be assessed using applicable and appropriate assessment procedures so that the outcomes provide evidence of mastery of the desired learning outcomes.

Moreover, the fundamental principle of assessment in modular program is that the assessment methods should be in accordance with the learning outcomes of the module and should foster a deep approach to learning. In a modular system, it is important to guard against overassessing students based on the unit of study. Also there is a tendency in a modular curriculum to crowd the assessments with the result that students are handing in multiple assessments at the midway point and at the end (Donnelly & Fitzmaurice, 2005). This is an unacceptable burden for students and it is therefore vitally important that within a program of study, the timetable of assessment should be planned thoroughly in advance so that students do not face this problem (Donnelly & Fitzmaurice, 2005). In this study, the phrases formative and continuous assessments are used interchangeably.

2. Higher education in Ethiopia

Yared Music School, which was established in the fifth century, is one of the earliest education institutions in the world. One of the strong justifications to this bold conclusion is that the purpose of the school was to train the highly qualified priests to organize religious music and dancing. St. Yared’s invention is still dominantly practiced in the Ethiopian Orthodox church. The musical nota (musical style) developed by St. Yared is still being taught in Ethiopian schools and is being practiced in higher level trainings of the Ethiopian Orthodox Church. Although Ethiopia possesses a 1,700 years of tradition of elite education linked to Orthodox Church (Girma, 1967), secular higher education was initiated only in 1950 with the founding of the University College of Addis Ababa. The university college had less than 1,000 students and less than 50 teachers in the late 1950s.

As there were no Ethiopians who were capable of teaching at that level and at that time, Jesuit teachers of various nationalities, who were initially involved in the teaching of secondary students at Teferi Mekonnen School (now Entoto Technical and Vocational Education and Training College), were appointed to teach in the newly established university college. The first classes of higher education had begun on 11 December 1950 and this marked the first landscape for the start of the Ethiopian higher education in Ethiopia.

During the following two decades, half dozen of specialized technical colleges were established to address training needs in agriculture, engineering, public health, and teacher education. They include the College of Agriculture and Mechanical Arts at the municipal, College of Engineering at Addis Ababa, Institute of Building Technology at Addis Ababa, Gondor Public Health College, Theology of Holy Trinity at the municipal, and Kotebe College of Teacher Education. With the assistance of the former Soviet Union, Ethiopia established its first Polytechnic Institute at Bahir Dar in the 1960s. It was giving training in agro mechanics, industrial chemistry, electricity, textile technology, and wood technology. In 1961, most colleges were reorganized under Haile Selassie I University (Marew, 2000).

These institutions fostered an educational culture that was heavily influenced by its long informal association with Orthodox Church (Teshome, 1990). In their academic organization,
they were somewhat more American and less British, than in the former colonies of East Africa. Strikingly, tertiary enrolment totaled only 4,500 in 1970 out of the national population of 34 million. The resulting tertiary enrolment ratio of 0.2% was among the very lowest in the world. The skilled human resource available to generate and guide development in one of Africa’s largest and poorest countries was, therefore, very small in relation to the enormity of the task.

Until the turn of the millennium, the Ethiopian higher education system comprised only two universities, few colleges, a total of about 35,000 students, and a small supervisory unit in the MoE. Hence, the system was characterized by limited access, inequity, poor quality, weak research output, regimented in its management and underfunded (Saint, 2004; Teshome, 2004). In sum, there has been a general perception that the Ethiopian higher education system has delivered less than expected in its existence over six decades (Teshome, 2007), raising serious doubts as to its ability to ensure access, quality, relevance, efficiency, and responsiveness to societal demands in the face of the globalized knowledge era, (MOE, 1994; Tesfaye, 2006). The increasing demand for access, the need to ensure social justice, the limited capacity of universities, the growing emphasis on highly skilled manpower for the growing economy as well as the global pressures on higher education sector reforms (Ministry of Education, 1996; Tesfaye, 2011, 2006; World Bank, 2003), therefore, necessitated the urgent introduction of higher education reform and expansion in Ethiopia. Accordingly, the last two decades are characterized by high expansion of higher education in terms of student enrolment, fields of study, graduate programs in the already established universities by adding additional infrastructure, libraries, laboratories, dormitories, classrooms, sport fields and computer centers and establishing 40 new universities in the different regions of the country.

3. Methods and materials
Methodologically, mixed research design comprising both quantitative and qualitative research methods was used. Instructors and second year and above regular undergraduate students of three universities were the population of the study. These universities are found in the same cluster (eastern cluster) and located in the eastern part of the country, Ethiopia. Average course load of instructors is 13.5 credit hours per week (considering full-timer academic staffs only). In these universities, a total of more than 55,000 students are enrolled in undergraduate and postgraduate programs. They engaged in teaching, research, and community service activities. From the colleges/schools/institutes of the universities, three randomly selected colleges/institutes were taken as a sample of the study. Accordingly, college of natural and computational sciences, college of business and economics, and institute of technology were selected. In determining the sample size, the researcher used the rule of thumb principle of sampling. According to different scholars in the field of social science researches (e.g., Janet, 2005; Lawrence, 2007; Schreiber & Asner-Self, 2011), in a moderately larger population (1,000–1,500), taking 30% of the total populations as a sample is considered as representative. Accordingly, a total of 422 students were selected using stratified and simple random sampling. Of these, 100 were from college of business and economics, 98 were from college of natural and computational sciences, and the remaining 110 were selected from institute of technology. Regarding the selection of instructors, available sampling technique was used. Accordingly, 163 instructors were participated in the study. Interviewees were selected using purposive sampling technique. Two students and instructors were selected from each college/institute. In addition, quality assurance director and department heads were also participated in the interview.

A self-developed questionnaire and semi-structured interview were used for data collection. As suggested by Cohen, Marion, and Morrison (2007), piloting data collection instruments is of paramount importance for increasing the validity and the reliability of the instruments used. Accordingly, the semi-structured interview items were reviewed by experienced academic staffs for relevance and clarity. Following their comments and suggestions, some items were added and some are modified. The questionnaires were pilot tested with a sample of 30 students and
instructors in non-sampled colleges. Accordingly, the internal consistency of the instrument for students and instructors was .74 and .71, respectively. The quantitative data collected were analyzed using frequencies and percentages. The qualitative data were analyzed qualitatively using qualitative content analysis techniques vis-a-vis the quantitative data. Of the 422 questionnaires distributed for students in the 3 universities, 308 (73.7%) of the questionnaires were returned fully completed, while the rest 114 were found incomplete, thus, discarded. Similarly, 163 questionnaires were distributed for instructors and 144 (88%) of them have returned the questionnaires.

4. Results
In this section, the results of the study were presented and analyzed based on the research questions. As the research used mixed research design, the quantitative data were analyzed together with the qualitative data. The data were collected on three major areas i.e., implementation of active learning, use of continuous assessment, and major challenges of modularization.

4.1. Teaching approach in modularization
Active learning is one of the underlying principles in the effective implementation of modularized curriculum. In this regard, the instructors were given a questionnaire describing a teacher’s behavior in a student-centered classroom and they were asked how often they have been using them in their classroom. Similarly, students were given the same questionnaire to rate the extent to which those behaviors were demonstrated in their classroom. The results are presented in the following tables.

As indicated in Table 1, instructors seem to use student-centered approach in their classroom. Majority of them reported that they checking students’ prior knowledge while presenting new topic which is the manifestation of active learning approach. More than half of the respondents have reported that they deliberately provide debate and discussions, use varieties of teaching strategies that consider students’ learning ability, act as facilitator setting the learning environment conducive for meaningful learning, ask students and look for details and justification for answers and comments, and encourage and motivate students to ask and share ideas freely. The self-reported data imply that the instructors allow students participate in the teaching-learning process and discharge their responsibility of constructing knowledge by themselves.

Table 1. Instructors’ practice of active learning approach in their classroom

| No. | Descriptions                                                                 | Always | Often | Rarely |
|-----|------------------------------------------------------------------------------|--------|-------|--------|
| 1   | I check students’ prior knowledge about a topic am going to present          | 85     | 59    | 35     |
|     |                                                                              |        |       | 24.3   |
|     |                                                                              | 24     | 16.7  |        |
| 2   | I ask students and look for details letting them comment each other          | 92     | 63.9  | 32     |
|     |                                                                              |        |       | 22.2   |
|     |                                                                              | 20     | 13.9  |        |
| 3   | I encourage students to ask and opine                                        | 97     | 67.4  | 28     |
|     |                                                                              |        |       | 19.4   |
|     |                                                                              | 19     | 13.2  |        |
| 4   | I deliberately provide debate and discussion                                  | 91     | 63.2  | 39     |
|     |                                                                              |        |       | 27.1   |
|     |                                                                              | 14     | 9.7   |        |
| 5   | I motivate students to take part in the teaching–learning process            | 90     | 62.5  | 42     |
|     |                                                                              |        |       | 29.2   |
|     |                                                                              | 12     | 8.3   |        |
| 6   | I use varieties of teaching strategies the considers students in need        | 87     | 60.4  | 34     |
|     |                                                                              |        |       | 23.6   |
|     |                                                                              | 23     | 16    |        |
| 7   | I act as facilitator setting the learning environment conducive              | 93     | 64.6  | 41     |
|     |                                                                              |        |       | 28.5   |
|     |                                                                              | 10     | 6.9   |        |

N = 144.
However, the interview made with quality assurance director witnessed another reality. He made clear that there is reluctance among academic staffs to engage students in the teaching-learning process. He underlined

...these days, there is a tendency, among academic staffs, to prefer power point presentation. I dare to say that majority, if not all, of the instructors observed lecturing the whole instructional time giving students no chance to participate in the knowledge construction process. They still believed that student-centered teaching approaches are tiresome and time-consuming.

Similarly, a department head at institute of technology has complained that PowerPoint presentation is dominating the instructional processes limiting students to reading PowerPoint slides for examination. His statement reads as

...the problem goes to the extent that instructors give students power-point print outs as handouts ... and students become dependants on those slides for exams. To your surprise, most instructors miss classes for the reason that there was no electric power. You might observe instructors quarrelling for a classroom with electric power supply. Students usually come to my office and report that their instructor has let them free for electric power-cut.

They further indicated that instructors usually mention large class size and students' readiness and interest as an excuse for preferring the traditional lecture method. Strengthening this, an instructor has said that

...I wish I could engage students in the teaching learning process but the number of the students in the classroom and lack of readiness on the student side challenges me so that I prefer to stick on the traditional lecture...

Furthermore some other instructors also attributed the dominance of traditional teaching approach for the nature of classroom, shortage of time for covering courses, and large class size. Classroom especially for technology institute is arranged in the traditional ways meaning students sit in rows on fixed chairs which would affect group makings and movement of students and instructors in the classroom.

Regarding students' evaluation of instructors' classroom behavior, the collected data revealed that majority of the students reported that instructors rarely engage them in the teaching-learning process. For instance, as indicated in Table 2, 283 (91.9%) of the students replied that their instructors were not acting as facilitator rather were dominating the instructional time delivering ready-made knowledge. Similarly, 208 (91%) of them responded that instructors were rarely use varieties of teaching strategies. Furthermore, 279 (90.6%) of them replied that they were not given the opportunity to discuss and debate. In general, the students have witnessed that the features of active learning approach were hardly observed in their classroom. This implies that the instructors were acting as source of knowledge considering the students as recipients of knowledge.

The interview with some students has also confirmed the quantitative data. They explained that most of the instructors heavily relied on PowerPoint presentations. A student from college of business and economics has said the following:

...I am a graduating student and most of the instructors in my department have taught me ... and these instructors have one common behavior i.e., unless there is an electric power they would postpone the classes for some other time. Every instructor came to class with LCD and laptops ... read the slides and handover the class for another instructor with another LCD and laptop. There were times we spent going classroom to classroom looking for classrooms with electric power supply ... or we might spent half an hour sitting in the
classroom waiting for LCD projectors. You might think that do instructors can't teach without LCD?.

Another student from technology institute also expressed... our instructors spent most of their time reading power-point slides and telling us to take notes. They are not interested to participate. They usually give lengthy lectures for consecutive three and four hours. Most of them heard complaining about the shortage of time thus focus on covering the course within the given times. They took the whole instructional time giving uninterrupted lectures.

The quantitative and qualitative data analyzed above could possibly led to the conclusion that the traditional teacher-centered approach that gives emphasis to the teacher leaving the student passive has dominated the instructional process and active learning approach has continued to be a luxury for Ethiopian classrooms.

4.2. Assessment and modularized curriculum

In a modularized curriculum, instructors are expected to assess students’ learning in a formative way. Continuous assessment is the underlying principle of modularization. Students have to be assessed regularly and provided with appropriate and timely feedback so that they would improve their performance and achieve the objectives for which the course is intended for. Accordingly, this study has examined the practice of continuous assessment in the three universities and the results are presented here.

Table 3 depicts that more than half (59%) of the instructors replied that they don’t give group and individual assignments to students. In agreement with this, majority (77.1%) of the instructors confessed that written exams (quizzes and tests) are the forms of assessment that the instructors use frequently. In an interview with instructors, they expressed that they don’t prefer group and individual assignments for the reason that students carelessly submit assignments copying each other believing that we (instructors) don’t read the assignments in details. An instructor said the following:

...Students usually consider assignments as an affirmative action through which they got marks for free. Thus, they don’t exert much effort and time.... They submit assignments.
directly downloaded from websites without edition. For this reason we refrain from giving individual and group assignments. The other reason is that the number of students in a classroom is about 90 (ninety) which means an instructor offering a course for 4 (four) sections or departments would have a total of more than 360 students per semester and imagine how an instructor could manage reading the assignments and give feedback!!

Strengthening the above notion, another instructor from institute of technology added that

...if you assign group assignments, for instance, it is only a student whose academic performance is said to be higher in the group that will do the assignment. The remaining members of the group don’t even know the title of their assignment. Besides, groups submit assignments copying each other. Thus, we prefer written test and quizzes, though not supported with written and/or oral feedback.

Confirming this, students also admitted that group assignments are perceived as support for low achieving students to score passing mark with the effort of the few good performing students in the groups. One student expressed that

...students usually expect group assignments and insist instructors for it because they know that instructors simply give better marks to assignments regardless of the quality of the paper submitted. Students do not exert much effort on the assignment and usually a student whom they consider good performer in their group shoulders the burden.

On the other hand, 109 (75.7%) of them have reported that they don’t give students timely feedback which means that they have no opportunity to identify the weakness of their students and take the necessary intervention strategies. Furthermore, 97 (67.4%) of the instructors reported that students were not communicated in advance about assessment criteria for individual and group assignments as students are not aware of assessment criteria for group and individual assignments.

The interview made with students also confirmed that test and quizzes are the most frequently used assessment techniques. Some other students from institute of technology and college of natural and

| Table 3. The practice of continuous assessment as reported by instructors |
| No. | Descriptions | Agree | Undecided | Disagree |
|-----|--------------|-------|-----------|---------|
| 1   | I give group and individual assignments and presentations | 25 | 34 | 85 |
|     |                                                          | 17.4 | 23.6 | 59 |
| 2   | Written exams (quizzes and tests) are the most frequent forms of assessment I use | 111 | 24 | 9 |
|     |                                                          | 77.1 | 16.7 | 6.2 |
| 3   | I give timely feedback on assessment                      | 14 | 21 | 109 |
|     |                                                          | 9.7 | 14.6 | 75.7 |
| 4   | The assessment techniques I used were appropriate to measure the required knowledge, skill, and change in attitude | 65 | 41 | 38 |
|     |                                                          | 45.1 | 28.5 | 26.4 |
| 5   | I use varied assessment techniques that fits the learning pace of students | 57 | 61 | 26 |
|     |                                                          | 39.6 | 42.4 | 18.0 |
| 6   | Assessment criteria for group and individual assignments are clear and communicated to students in advance | 17 | 30 | 97 |
|     |                                                          | 11.8 | 20.8 | 67.4 |

*N = 144.*
computational sciences, on the other hand, expressed that there are some instructors who use the traditional assessment format i.e., mid and final exam. An excerpt from the interview reads as

...I don’t think there is a follow-up mechanism from departments that make sure instructors are assessing students’ performance regularly. Some instructors administer mid-term exams that weight 40% of the total assessment and finally split it into four categories as if they assessed students for four different times using different assessment techniques. No one dare to expose this fearing that the instructor/s would blackmail and revenge them in the next courses.

These students further explained that instructors who gave them group assignments didn’t return it with feedbacks. They had never been informed about the evaluation criteria and they often did not receive feedback either in written or oral form from their instructors. They stressed that the instructors usually give similar marks for all groups with one or two marks difference. This implies that it is hardly possible to say continuous assessment is implemented as to the optimum level.

4.3. Challenges of modularization

The interviews made with students and instructors have identified some challenges within the implementation of modular curriculum. The students, for instance, reported that the time allotted for block teaching (of a single course) is too short and thus had exposed them for more extensive test and quizzes within 6 weeks. The following excerpt from a student manifests the situation better

...We get bored easily as the teaching methods are too teacher focused. Some students have a more difficult time keeping up with the faster pace of the instruction inherent in block teaching. We do not have enough time to do assignments. Most of the courses are given six weeks but all ends tiresome for which both instructors and students are overloaded and busy.

In agreement with students’ opinion, instructors also complained that the time allocated for each course is not sufficient to cover the course using appropriate pedagogical approaches and assess students’ learning in appropriate ways. An instructor from technology institute has said that

...I feel as if I am in the cross roads confused to choose among the worst things. The challenges are three fold. First, I have to give coverage for all the contents in the course given that students have no access of supportive materials as textbook and/or reference. There are courses for which the instructor him/herself has no material to refer, for that matter. Second, I am expected to deliver the course using student-entered teaching strategies in a classroom setting where more than 100 students sat on fixed desks arranged in traditional row forms. Third, the department head expect me to complete 50% of the total evaluation through continuous assessment using at least 5 (five) assessment techniques. The block teaching approach seems full of paradox which need detail reconsideration.

Supporting this, one student has said that

...instructors usually use lecture method predominantly and they rush to cover the contents than participating us in the process of knowledge construction. Most instructors cover two-three chapters in one session through power point presentation as the time allotted for the course is not adequate. Because of the shortage of time they test us daily and if a student, for medical reason, fails to attend a single class, he/she will face a challenge to convince the instructors...

Another student has also added that

...usually 4-6 weeks are allotted for block courses but in reality there is a tendency, among instructors, of late beginning and early finish the course for different reasons.... And this will aggravate the challenges on the students’ side. We sometimes attend the new block course
in the state of the preceding course. We might not even recognize the new block course and instructor as we still worrying about due dates for assignment submissions and completions.

Moreover, instructors have confessed that the inadequacy of time coupled with the assessment policies in the universities is making instructors less committed and violating the professional ethics. The following excerpt tells the story as

...within such shortage of time, you are expected to administer re-tests for those who fail to achieve the minimum pass mark in the test and/or quizzes which is another burden. Frankly speaking, the assessment policy in higher education institution coupled with the new block teaching approach is making instructors reluctant and negligent. Academic integrity is deteriorating among staff. Instructors are giving pass marks even for student whose academic performance is far behind the pass mark to get relief of subsequent responsibilities (i.e. 16 hours tutorial and re-exams for “Fx” grade scoring students without additional payments). You might lose your semester break for discharging such responsibilities.

The instructors stressed that the absence of compensation for overload that emanates from large class size, reassessment, and tutorials is eroding their commitments. The management bodies are pressuring academics staffs without considering the existing challenges. The following excerpt from an instructor depicts the situation clearly.

...management bodies are abusing the instructional process for political purpose. They order you to apply active learning approach, continuous assessment, supporting the student in need (tutorial for females and low achievers) regardless of the context you are working in (large class size, shortened and tight class schedules, limited teaching material etc). The term “acting” better express our current professional practice.

All these statements tells us that the shortage of time allotted for block courses and large class size is affecting the instructional process and hindering instructors from using varieties of assessment techniques with appropriate and timely feedback. Moreover, it is challenging instructors’ professional ethics. This implies that the likelihood of achieving the intended learning outcomes and eventually producing competent graduates through the implementation modularized program is highly being compromised.

5. Discussions
In the implementation of active learning approach, both instructors and students have reflected similar views. The instructional process was predominantly teacher-centered. Instructors were confined to PowerPoint presentation and lengthy explanation leaving students as passive receiver. There was a strong preference, among instructors, for the teacher-centered approach. The interview with students has confirmed that instructor’s classroom role was limited to reading PowerPoint slides which conflicts with the underlying principle of modularization.

This result is consistent with the findings of Guro and Weber (2010) who reported that the lecture methods used at the tertiary level seldom differ from those used at the primary and secondary level. Moreover, the excuses that instructors have mentioned for not engaging students in the instructional process have been similarly reported by Coskun (2013). Although teacher-centered teaching may be effective in some contexts, teacher-centered teaching activities like lecturing are not favorable in modularized curriculum in which independent learning is promoted (Bonwell & Eison, 1991; Gayan, Anar, Karakat, & Madina, 2016; Lightfoot, 2006).

Justifying this, instructors stated that large class size, lack of students’ motivation, and shortage of time have hindered them to participate students in the teaching–learning process. These show that instructors lack pedagogical skills in dealing with large class sizes and misunderstood active learning as time-consuming and tiresome. On this regard, Coppel, Sigel, and Saunders (1984) wrote that some instructors discourage active learning with the ground that it brings an extra demand in
the planning and preparations of lessons. The belief persists, as explained by Leo (2007), that active learning takes too much time and thus covering the portion is difficult or impossible.

The previous studies and scholars in the field of education indicate that student-centered activities should be incorporated into modularized programs more to enable students to be the managers of their own learning (Adesope & Ahiakwo, 2016; Ali et al., 2010; Billing, 1996; Brown & Saunders, 1995; Cornford, 1997), and instructors' role in the modularized classroom should be that of facilitator and a guide. Describing the role of instructors in a modularized curriculum, Goldschmid and Goldschmid (1973) stated that he/she is a diagnostician, prescriber, motivator, and resource person. He/she is no more a disseminator of information.

Malik (2012) also contend that the teaching approach in modularized program should allow students to proceed at their own pace, give opportunity to choose their own learning style, and allow them to identify their strengths and weaknesses. Moreover, Manlove and David (1985) have stressed that modularization should focus on independent learning which would help the individual student in developing many notable and self-reliant characters, and in much more modern ways, learners enjoy periods in which they pursue their interests and satisfy their curiosities. Moreover, as explained by Loughran and Berry (2005), such learning approach permits the student to work at their own pace (Kain, 2003; Nadeem, 2013).

Regarding the practice of continuous assessment, the study has found out that instructors frequently use quizzes and tests making students busy and tired all day. Continuous assessment seems perceived as continuous testing. Similar findings were also reported by Getinet (2016) who have reported that continuous assessment is practiced in higher education as continuous testing in which students sat for quizzes and tests continuously. Instructors reported that they tend to prefer quizzes and/or tests over individual and/or group assignment justifying that academic dishonesty is rampant among undergraduate students. Group assignments are meant for engaging only one or two students whose academic performance is better and other group members did not take individual accountability and/or contributions to complete group assignments. Regarding individual assignments, instructors reported that it is common to find students copying from other students of the same class or different classes. Similar findings have been reported in previous studies (Tadesse & Getachew, 2009, 2010; Imran & Ayobami, 2011; Michelle, Nancy, & Candace, 2012).

It was also found that students were not provided with feedback on their quizzes, assignments, and/or tests. Instructors have justified that large class size is the hindering factor. Students also underlined that instructors are reluctant in marking group assignments and provide timely feedback. This result is in agreement with Hernandez (2012) who reported that large class size and the approach i.e., modularization by itself as barriers for providing feedback to students. This is in contrary to what Goldschmid and Goldschmid (1973) have suggested. They stressed that modular instruction requires instructors to check students' learning progress regularly with feedbacks. They have to provide the student with immediate and continuing feedback. They further underlined that the purpose of assessment in modularized program includes assessment of prerequisite skills, the diagnosis of difficulties, and a confirmation of mastery. Moreover, it should consider individual difference by providing flexibility with respect to the pacing, format, and contents of the instruction (Hernandez, 2012).

The result also revealed that students are not aware of assessment criteria for group and/or individual assessments. For this reason, instructors simply mark group assignments with a maximum of one or two marks differences among groups and/or individual students to avoid possible complaints from students. Scholars in the field of education (e.g., Broadfoot & Black, 2004; Hernandez, 2012; Mcdonald, 2006; Norton, 2004) insist that instructors should develop and share assessment criteria (usually rubrics) with learners. This promotes, according to these scholars, learning. They further argue that the assessment criteria should be clear and students should be
informed about it before they generate the work for a given task. It is therefore vital that all learners in a group understand what they are trying to achieve in a given task and why they are doing it.

On the other hand, the study has found out that the time allotted for block course is inadequate and mostly wasted for different reasons. A week or more is usually wasted in the transition between courses. Moreover, they both have complained that the time allocated for a course is usually wasted because of late opening and early closing of the academic year for different national and institutional reasons. On the other hand, instructors have complained that the time is inadequate to deliver the course with active participation of students in the instructional process. The study found out that because of the inadequacy of time, the instructors are obliged to depend on objective paper and pencil tests than subjective assessment types like essay, projects, etc.

6. Conclusion and implication
Considering the participants’ views on the implementation of modularization, it would be fair to conclude that though the modularized program emphasized the utilization of student-centered pedagogies and continuous assessment methods, currently these curricular reforms appear to have been undermined by the dominance of traditional lecture-based instruction and continuous testing.

It is obvious that for effective implementation of any new perspective, positive attitude to the issue, and sound knowledge and skills in the area are very important. Particularly, instructors and students should clearly understand the underlying ideas, concepts, merits, and demerits of the new approach. Thus, the application of active learning approach largely depends on the perception that instructors and students adhere. In addition, instructors may often be scared of trying new ways of teaching, hence resorting to the traditional teacher-centered teaching approach. Such fear could simply be fear of the unknown. Instructors should really be innovative and be willing to try out new teaching strategies in an attempt to improve their professional practice in general and enhance students’ learning.

On the other hand, instructor thought that it is impossible to engage students actively in the teaching–learning process using lecture method. However, the lecture method shall be transformed from the traditional thrust where the instructor was the dominant and all-knowing figure in the teaching–learning process with students viewed as passive listeners. The incorporation of active learning strategies becomes imperative in the transformation of the lecture method of instruction.

As Carpenter (2006) stressed, class size doesn’t matter in participating students in the teaching–learning process. Instructor’s competency, concern for students, energy level, speaking ability, organization, and clarity are the factors that matter most in helping students learn in large class sizes. For instance, Maphosa and Kalenga (2012), while stating how to modify the traditional lecture method, contend that pausing for two or three times during teacher’s presentation and inserting a brief demonstration or short ungraded writing exercises followed by class discussion help students to involve in the teaching leaning process. Similarly, Frederick (1987) and Ndebele and Maphosa (2013) explained that when beginning a new topic, for instance, instructors may start with a participatory lecture by asking students brainstorming questions. A variation of an interactive lecture is to ask students at the beginning of class to call out one concrete visual image that stands out from a text, scene, laboratory experiment, event, art object, or personal experience.

Such transformation, however, is only possible if lecturers are aware of what constitutes proper learning and have an adequate understanding of how learners learn. Therefore, armed with skills and expertise in pedagogy and andragogy, instructors shall be in a position to incorporate active learning techniques in their teaching. In other words, large lecture-hall classes need not be barriers in providing the kind of interactive, engaging, and investigative experiences that enhance student
learning. Finally, instructors should not be misled: planning and structuring active learning in large classes takes time and energy.

It is evident that continuous assessment has the potential to support student learning through feedback and to increase students’ motivation for learning. Despite some apparent differences, which relate class size, in the provision of feedback from academics in the different institutions, the results of this study indicate that this practice of assessment often seems to fail in supporting “assessment for learning,” irrespective of the great effort that academics put into it. Moreover, in order for the continuous assessment system fulfill its objective as a support for improved learning, it is not enough to train instructors about what and how of continuous assessment rather it needs continuous dialogue and discussion among instructors, on day-to-day teaching practice and share and complement each other. For feedback to support students’ learning, a move toward a learning-oriented approach to assessment, as argued by Carless (2007), is suggested. This approach advocates (a) the design of assessment tasks as learning tasks, (b) the provision of feedback that aims at supporting students throughout the process of learning, instead of focusing on offering feedback on the completed task (i.e., when they receive the grade), and (c) the engagement of students in managing and monitoring their learning.

**Funding**
The author received no direct funding for this research.

**Author details**
Wondifraw Dejene
E-mail: wondideg@gmail.com
Assistant professor in curriculum and instruction, Department of education, Dire Dawa University, Dire Dawa, Ethiopia.

**Citation information**
Cite this article as: The practice of modularized curriculum in higher education institution: Active learning and continuous assessment in focus, Wondifraw Dejene,Cogent Education (2019), 6: 1611052.

**References**
Adesope, R., & Ahikwo, M. (2016). Perception of educators towards using modular object oriented dynamic learning environment (module) for teaching. *International Journal of Academic Research and Reflection*, 4(3), 46-52.
Ali, R., Ghazi, R., Khan, S., Hussain, S., & Faitma, T. (2010). Effectiveness of modular teaching in Biology at secondary level. *Asian Social Science*, 6(9), 49-54. doi:10.5539/ass.v6n9p49
Bennett, E. (2011). Formative assessment: A critical review. *Assessment in Education: Principles, Policy and Practice*, 18(1), 5–25.
Billing, D. (1996). Review of modular implementation in a University. *Higher Education Quarterly*, 50(1), 1–21. doi:10.1111/hequ.1996.50.issue-1
Black, P., & Dylan, W. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability*, 21(1), 5–17.
Black, P., Harrison, C., Lee, C., Marshall, B., & William, D. (2003). *Assessment for learning: Putting it into practice*. Maidenhead: Open University Press.
Bonwell, C., & Eison, J. (1991). *Active learning: creating excitement in the classroom*. AEHE-ERIC Higher Education Report No. 1. Washington DC: Jossey-Bass.
Broodfoot, P., & Black, P. (2004). Redefining assessment? The first ten years of assessment in education. *Assessment in Education*, 11(1), 7–27.
Brown, S., & Saunders, D. (1995). The challenges of modularization. *Innovations in Education and Training International*, 32(2), 96-105. doi:10.1080/1353800950320202
Carless, D. (2007). Learning-oriented assessment: Conceptual bases and practical implications. *Innovations in Education and Teaching International*, 44(1), 57–66.
Carpenter, J. (2006). Effective teaching methods for large classes. *Journal of Family and Consumer Sciences Education*, 24(2), 13–23.
Cohen, L., Marlan, L., & Morrison, K. (2007). *Research methods in education* (6th ed.). New York: Routledge.
Coppel, C., Sigel, E., & Saunders, R. (1984). *Educating the young thinker: Classroom strategies for cognitive growth*. London: Lawrence Erlbaum Association Inc.
Cormford, R. (1997). Ensuring effective learning from modular courses: A cognitive. *Journal of Vocational Education and Training*, 49(2), 237–251. doi:10.1080/13636829700200014
Coskun, A. (2013). An investigation of the effectiveness of the modular general English language teaching preparatory program at a Turkish university. *South African Journal of Education*, 33(3), 1–18.
Donnelly, R., & Fitzmaurice, M. (2005). Designing modules for learning. In G. O’Neill, S. Moore, & B. McMullin (Eds.), *Emerging issues in the practice of university learning and teaching* (pp. 99–110). Dublin: Aishe.
Frederick, P. (1987). Student involvement: Active learning in large classes. In M. Weimer (Ed.), *Teaching large classes well: New directions for teaching and learning* (pp. 45–56). San Francisco: Jossey-Bass.
French, S. (2015). The benefits and challenges of modular higher education curricula. *Issues and ideas of paper, Melbourne centre for the study of higher education*. Gayan, G., Anar, M., Karokat, M., & Modina, A. (2016). Modern approaches to the pedagogical designing of modular educational programs of higher professional education in the Republic of Kazakhstan. *International Journal of Environmental and Science Education*, 11(9), 2863–2878.
Getinet, S. (2016). Assessment of the implementation of continuous assessment: The case of Mettu University. *European Journal of Science and Mathematics Education*, 4(4), 534-544.
Girma, A. (1967). Aims and purposes of Church education in Ethiopia. *Ethiopian Journal of Education*, 1(1), 1–11.
Goldschmid, B., & Goldschmid, M. (1973). Modular instruction in higher education: A review. *Journal of Higher Education*, 2, 15–32. doi:10.1007/BF00165336
Guro, M., & Weber, E. (2010). From policy to practice: Education reform in Mozambique and Marrere
teachers’ training college. South African Journal of Education, 30, 245–259. doi:10.15700/201409161038
Hernandez, R. (2012). Does continuous assessment in higher education support student learning? Higher Education, 64, 489–502.
Imran, A., & Ayobami, R. (2011). Academic dishonesty among tertiary institution students: An exploration of the societal influences using SEM analysis. International Journal of Education, 3(2), 29–49. doi:10.5296/ij.e.v3i2.636
Isaksson, S. (2007). Assess as you go: The effect of continuous assessment on student learning during a short course in archaeology. Assessment and Evaluation in Higher Education, 33(1), 1–7.
Janet, R. (2005). Essentials of research methods: A guide to social science research. Victoria: Blackwell Publishing.
Kain, J. (2003). Teacher-centered versus student-centered: Balancing constraint and theory in the composition classroom. Pedagogy, 3(1), 104–108. doi:10.1215/15314200-3-1-104
Kamakshi, A. (2013). Effectiveness of modular approach of teaching for bachelor of education trainees in terms of self-confidence and teaching attitude. Indian Streams Research Journal, 1(4), 1–6.
Lawrence, N. (2007). Basics of social research: Qualitative and quantitative approaches (2nd ed.). Boston: Pearson Education Inc.
Leo, J. (2007). The student-centered classroom. New York: Cambridge University Press.
Lightfoot, M. (2006). Modular curriculum design using personal learning plans and reusable learning components. Communication of the IIMA, 6(4), 65–80.
Loughran, J., & Berry, A. (2005). Modeling by teacher educators. Teaching and Teacher Education, 21, 193–203. doi:10.1016/j.tate.2004.12.005
Molik, K. (2012). Effects of modular and traditional approaches on students’ general comprehension. Elixir Social Studies, 42, 6228–6231.
Manlove, D., & David, B. (1985). Flexible scheduling. New York: Longmans Green and Company.
Maphosa, C., & Kalenga, R. (2012). Displacing or depresing the lecture system: Towards a transformative model of instruction for the 21st century university. The Anthropologist, 14(6), 555–563. doi:10.1080/09720073.2012.11891281
Marew, Z. (2000). A study guide for curriculum implementation and evaluation. Unpublished Teaching Materials. Ethiopia: Addis Ababa University.
Martin, K. (1997). Connecting Instruction and management in a student-centered classroom. Middle School Journal, 28(4), 3–9. doi:10.1080/00960771.1997.11494456
Mcdonald, R. (2008). The use of evaluation to improve practice in learning and teaching. Innovation in Education and Teaching International, 43(1), 3–13.
Michelle, W., Nancy, M., & Condace, H. L. (2012). Undergraduates and academic dishonesty. International Journal of Business and Social Science, 3 (1), 341–367.
MOE [Ministry of Education]. (1994). Education and training policy. Addis Ababa: Addis Ababa Printing Press.
MOE [Ministry of Education]. (1996). Attempts at educational reform in Ethiopia: A top-down or a bottom-up reform? The Ethiopian Journal of Education, 16, 15–32.
MOE [Ministry of Education]. (2013). A revised guide line for curriculum modularization in Ethiopian higher education institutions. Addis Ababa, Ethiopia: Author.
Nadeem, M. (2013). Learner-centered english language teaching. The International Journal of Engineering and Science, 2(1), 114–120.
Ndebele, C., & Maphosa, C. (2013). Promoting active learning in large class University teaching: Prospects and challenges. Journal of Social Science, 35(3), 251–262.
Norton, L. (2004). Using assessment criteria as learning criteria: A case study in psychology. Assessment and Evaluation in Higher Education, 29(6), 687–702.
Rengel, Z. (2009). A model formative assessment strategy to promote student-centred self-regulated learning in higher education. US-China Education Review, 6 (12), 29–35.
Rushton, A. (2005). Formative assessment: A key to deep learning? Medical Teacher, 27(6), 509–513. doi:10.1080/01421590500129159
Saint, W. (2004). Higher education in Ethiopia: The vision and its challenges. Journal of Higher Education in Africa, 2, 83–113.
Schreiber, J., & Asner-Self, K. (2011). Educational research: The interrelationship of questions, sampling, design, and analysis. USA: John Wiley & Sons Inc.
Seipel, (2013). Modular method of teaching. International Journals of Research in Education, 2(2), 1–13.
Struyven, K., Dochy, F., & Janssens, S. (2010). ‘Teach as you preach’: The effects of student-centred versus lecture-based teaching on student teachers’ approaches to teaching. European Journal of Teacher Education, 33(1), 43–64. doi:10.1080/0261970903657818
Tadesse, T., & Getachew, K. (2009). Faculties’ perception and responses to academic dishonesty of undergraduate students in education, business and economics. Ethiopian Journal of Education and Sciences, 4(2), 21–42.
Tadesse, T., & Getachew, K. (2010). An exploration of undergraduate students’ self-reported academic dishonesty at Addis Ababa and Jimma Universities. Ethiopian Journal of Education and Sciences, 5(2), 47–63.
Tesfaye, S. (2006). Higher education expansion and the gender question in Ethiopia: A case study of women in a public university. Ethiopian Journal of Higher Education, 3, 63–86.
Tesfaye, S. (2011). Breakneck expansion and quality assurance in ethiopian higher education: Ideological rationales and systemic impediments. Higher Education Policy, 24(3), 399–425.
Teshome, W. (1990). The development of higher education and social change: The Ethiopian experience. East Lansing, Michigan, USA: Michigan State University Press.
Teshome, Y. (2004). The status and challenges of Ethiopian higher education system and its contribution to development. The Ethiopian Journal of Higher Education, 1(1), 1–20.
Teshome, Y. (2007). The Ethiopian higher education: Creating space for reform. Addis Ababa: St Mary’s UC Press.
World Bank. (2003). Higher education development for Ethiopia: Pursuing the vision. Washington, D.C.: Author.
Yoseph, G., & Mekuwanint, T. (2015). The suitability of the modular curriculum to offer/learn skill in EFL undergraduate classes. International Journal of Current Research, 7(4), 14686–14696.
