

Outcomes Approach to Learning: A Good Practice for Ethiopian Higher Education

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Abstract: Autonomy and accountability are being newly implemented within the Ethiopian higher education. One crucial area of accountability is the relevance and quality of programs that guarantees the availability of appropriate and effective teaching/learning processes ensuring that the outcomes (graduates' achievements) meet the development needs of the country. In response to academic accountability, higher education institutions need to revise their approach to learning and be committed to the improvement of their instructional methodologies. An outcomes approach to learning is a good educational practice and effective tool for successful education as well as for quality enhancement. An outcomes approach offers a framework for specifying the learning outcomes of a program in terms of knowledge, skills and attributes expected from graduates of the program. It identifies the processes (curriculum, teaching/learning and assessment methods) that enable the outcomes to be achieved and demonstrated. Through outcomes approach, education programs are able to promote active learning opportunities for students. To assure that students graduating from degree programs will possess relevant knowledge and skills to be successful in the work place, an outcomes-based learning approach shall be used in Ethiopian higher education institutions. This paper presents the main features of outcomes approach to learning. The implications in adopting outcomes-based education to teaching, learning and assessment methods are discussed to indicate the challenges of an outcomes approach that may confront higher education institutions and the academic community. Some recommendations are proposed for promoting the outcomes approach to learning in Ethiopian higher education institutions. The paper concludes that academic institutions need to adopt an outcomes approach to learning in order to improve the overall quality of higher education provision in Ethiopia, and to meet the expectations of students, employers and other stakeholders.

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Introduction

In recent years, accountability has gained prominence throughout higher education. The increasing focus on academic accountability causes substantial changes in higher education practices. The changes are not limited substance of what is being taught, but more significantly, is also to the views about and the ways in which it should be taught, learnt and evaluated. An increasingly accepted view among educational scholars is that traditional structures are dysfunctional and overdue for change (Miller, 1998). The traditional input-related higher education is focused on the teacher instead of the learner. The outcomes approach brings a paradigm shift, moving the emphasis from teaching to learning. It shifts the focus in teaching from curriculum-based that emphasize on the content presented, toward learning-based that emphasize what students know and can actually do at the end of their education. This change has been associated with a need for more academic accountability, and an acknowledgement that more effective and varied learning styles can benefit the learner. Increased focus on the relevance and quality of higher education has strengthened the need to express, through the medium of learning outcomes, the knowledge, understanding, skills and other attributes expected from graduates.

Learning entails not only what students know but also what they can do with what they know; it involves not only knowledge but also skills, and attitudes. Learning should be relevant to the variety of graduates' roles included in their working, civic and personal life. The purpose of education is primarily the imparting of basic skills, knowledge, and behaviors necessary for the student to successfully function in society.

Outcomes approach to learning has been driven by educators in response to demands for greater accountability and as a vehicle for breaking with traditional ideas about how higher education institutions teach students. It represents a change in emphasis from 'teaching' to 'learning' by the adoption of a student-centered approach in contrast

to traditional teacher-centered viewpoint. An outcomes approach has the potential to provide a framework for teaching and learning that is student focused and relevant. Contrary to traditional input-based approach, which simply cares how much percentage of students pass the courses, outcome-based approach stresses how students obtain the capabilities that they will need in the highly competitive real world (Chang, and Wang, 2005). The purpose of establishing outcomes-based approach is to cultivate the knowledge and skills students will need to succeed after graduation. An outcomes approach to education emphasizes the end products or outputs of an education process rather than its inputs.

The outcomes approach to learning has gained more importance in the last ten years, and it is likely to form an important part of twenty-first century approaches to higher education. The move to outcomes-based education is a global trend in higher education. The learning outcomes approach is being implemented in many countries such as Australia, New Zealand, South Africa, United Kingdom, and USA. On the other hand, some countries (including Ethiopia) are still applying traditional views of teaching in higher education. To make the Ethiopian higher education more relevant and effective, it would be essential to adopt the outcomes approach to learning.

Traditional Approach versus Outcomes Approach

Some pedagogical features of the tradition versus outcomes approach with respect to student learning are outlined as follows.

Traditional Approach	Outcomes Approach
<p>Emphasis is given more to educational inputs.</p> <p>Curriculum-based education that focuses on the content presented, and on what an academic staff will teach.</p> <p>The student is required to adjust himself /herself to an established curriculum of an academic program.</p> <p>Teacher-directed learning that keeps the learner in a dependent role, limiting his/ her learning activities with specific boundaries as set by the instructor.</p> <p><i>Teacher-centered:</i> The emphasis is on the teacher as a transmitter of specialized information, usually relying on a direct teaching style.</p> <p>Assessment focuses on how students' achievements vary within a group.</p> <p><i>(Norm-referenced assessment)</i></p>	<p>Emphasizes the end products or outputs of an education process.</p> <p>Focuses on developing knowledge and skills that are expected from a student to know, understand, and able to do.</p> <p>The curriculum is built based on intended learning outcomes of a program and expected students' achievements.</p> <p>Encourage active participation of student through self-directed learning which permits the learner to exercise his/ her acquired skill and knowledge.</p> <p><i>Student-centered:</i> The emphasis is on the student, and the teacher is a facilitator of learning using a variety of instructional techniques.</p> <p>Assessment focuses on the outcomes that describe what students know and are able to do.</p> <p><i>(Criterion-referenced assessment)</i></p>

Outcomes-based Learning

An outcomes-based learning provides a framework for describing the intended outcomes of a program in higher education, and the means by which these outcomes are achieved and demonstrated. The framework of an outcome approach to learning involves:

- Intended learning outcomes that make explicit the knowledge and skills that are expected from students to know, understand and able to do at successful completion of an educational program.

- The educational processes (curriculum design, teaching/learning strategies and assessment methods) that enable the outcomes to be achieved and demonstrated.
- Performance assessment criteria for judging whether the intended outcomes have been achieved, and for differentiating the performance of students.

The alignment between learning outcomes, curriculum design, learning/teaching strategies, assessment methods and performance assessment criteria is an important aspect in the outcomes approach.

Learning Outcomes

Learning outcomes are statements of what a learner is expected to know, understand and be able to demonstrate at the end of a period of learning. They are based on the aims of an educational program that identify the broad educational purposes and the teaching intentions. Learning outcomes are commonly expressed in terms of the knowledge and skills that a graduate student is expected to attain as a result of learning in higher education. They may involve knowledge and understanding, intellectual skills, and transferable skills.

Knowledge and Understanding refers to recalling of essential facts; and understanding of concepts, principles, and theories related to the main areas of an educational program.

It involves theoretical knowledge of an academic field, and the capacity to know and understand.

Intellectual Skills are cognitive/thinking abilities and subject-specified practical skills.

Transferable Skills are key skills that are transferable to employment and other contexts. They are recognized as having applicability beyond the confines of a particular academic subject.

Learning outcomes should be the basis for choosing curriculum content, instructional strategies, and assessment methods. Curriculum shall be designed in a way that provides the students with the knowledge, skills, and attitudes that will allow them to achieve the intended learning outcomes. Learning activities and teaching methods should be designed so as to be appropriate for the outcomes of an educational program.

Assessment methods should match the teaching and learning strategy, meet learning outcomes and encompass a wide variety of tools. It is essential that the criteria used for the assessment of students' achievements should correspond to the knowledge, abilities and skills that are to be demonstrated. Student-centered learning produces a focus on the teaching – learning – assessment relationship and the fundamental links between the design, delivery and measurement of learning (Adam, 2004).

Outcomes-based Curriculum Design

When designing a curriculum using an outcomes approach, it is first needed to identify the learning outcomes that are expected from students to know, understand and be able to do by the end of the educational program.

Each learning outcome stated in a curriculum should be:

- *Appropriate* to the intended program and to the subject area
- *Capable* of capturing the knowledge and skills expected of students
- *Supportive* of the use of a range of teaching, learning, and assessment strategies
- *Measurable* to enable the appropriate connections to be made between teaching, learning, and assessment.

Designing courses using learning outcomes leads to a more student-centered approach: it marks a shift from the content of a course (what

is presented) towards its outcome (what the student is able to do on successful completion of the course).

When designing the curriculum of a program, it is important to review each individual course to determine its contribution in achieving the learning outcomes of the program. It would be necessary to indicate how each of the courses selected for a program helps to achieve the learning outcomes. The knowledge and skills that each course will require to contribute to a program shall be identified.

For each individual course, it is necessary to state clearly:

- The knowledge and skills a student will gain as a result of taking the course.
- The teaching methods and learning activities applied in the course instruction that enables the learning outcomes to be achieved and demonstrated.
- Assessment methods, grading procedures and assessment criteria used to measure students' learning achievement of the course.

Outcomes-based Teaching/Learning Strategies

Learning activities and teaching methods should be designed so as to be appropriate for the intended outcomes of a program. Teaching/learning strategies should describe how the learning outcomes for the program will be achieved, and refer to the different types of teaching and learning methods that will be used. There should be learning and teaching strategy, which makes explicit and demonstrable the appropriateness of the learning and teaching methods used in relation to the anticipated learning outcomes.

Knowledge and understanding is often developed through lectures and seminars, supported by directed study of textbooks and other references. Tutorial classes, mainly in small groups, are used to aid the understanding of concepts introduced in lectures and seminars for

more in-depth investigation and discussion of selected topics. Intellectual skills such as analysis, synthesis, evaluation and problem solving may be practised and demonstrated through more active learning processes involving projects, group-learning, or field-based activity.

Laboratory classes should allow students to gain subject-specific practical experience and enhance their knowledge and understanding of the subject area. Transferable skills may be developed through extra-curricular activities. Group projects are a typical way in which individual students provide evidence of their team working skills.

Outcomes-based Assessment Methods

Assessment is well recognized as a major motivator of students' learning (Gibbs, 1992). Designing assessment tasks, which promote a deep approach to learning, requires that the learning outcomes and assessment are clearly defined and relate to each other. Willis and Kissane (1997) suggest that in an outcomes approach, the accountability question is not how well did students learn what was taught; the question becomes more focused on whether students have demonstrated the outcome. Assessment should be used to improve teaching and learning for students, not to filter students out of educational opportunities. All assessments must be valid and reliable to accurately and appropriately assess student achievement based on learning outcomes. The learning outcomes and the assessment processes to be used should be explained and made explicit to students.

Knowledge and understanding is often assessed through written examination. Independent project work or essays are typically used to demonstrate capability in a range of intellectual skills linked to subject-specific knowledge, understanding and practical skills. Transferable skills, such as written communication skills can be assessed through essays or report writing; oral communication skills can be assessed through a range of activities including group or

individual presentations in seminars. Team working skills can be assessed through collaborative projects.

Outcomes-based Performance Assessment Criteria

Assessment criteria indicate what standards student should meet to demonstrate that the learning outcomes of a course or a program have been achieved. Assessment criteria should relate to the learning outcomes. In making judgments on whether a student demonstrates achievement of an outcome, criterion-referenced assessment is used rather than norm-referenced. Norm-referenced assessment techniques focus on how students' achievements vary within a group. The assessment is comparative, telling that one student is better than another student. The norm-referenced assessment is not associated with learning outcomes, and it is inappropriate for the outcomes approach.

The use of learning outcomes and criterion-referenced assessment criteria provide a mechanism for describing students' performance and for judging whether outcomes have been achieved. Criterion-referenced assessment is an assessment scheme in which the judgment of the learners' achievement is made in relation to pre-defined criteria. A criterion-referenced system may involve both the threshold assessment criterion and grade assessment criterion.

The threshold assessment criteria specify the minimum standards required to demonstrate that the learning outcomes have been achieved. Applying grading criteria can differentiate any performance above a threshold level. Grade assessment criteria provide description of levels above threshold (pass/fail) standard that indicates the achievement of better performance.

Implications in Adopting Outcomes Approach

An outcomes approach to learning will have major impacts on the traditional practice of higher education teaching and learning.

Emphasis on learning outcomes demands a different kind of teaching from the traditional one. It may no longer be enough that teaching staff in higher education institutions are competent in their disciplines; they are likely to be increasingly called upon to create, develop, and manage stimulating learning environments, using a variety of resources, abilities, and technologies in order to deepen and enrich student learning. The teaching staff will find the greatest challenges to adopting an outcomes approach, and might find that a move away from teacher-centered methods is difficult.

A reform due to outcomes approach is not just a simple change but also a serious transformation in the higher education system. The adoption of a learning outcomes approach represents more than simply expressing learning in terms of outcomes. It entails much more, due to its significant implications for all aspects of curriculum design, instructional delivery, and assessment methods. Such reform implies a high degree of working load concerning the detailed process of identifying, writing and implementing learning outcomes – and the consequential changes to teaching, learning and assessment. Outcome approach to learning is a challenging process demanding academic teaching staff to deeply restructure curriculum, instruction, and assessment.

The implementation of learning outcomes is a massive undertaking to transform all curricula to be expressed in terms of outcomes. The existing curricula may need to be reviewed in line with the outcomes approach and this often takes a long time to accomplish. It will be necessary for the review process to confirm that the curriculum does provide opportunities for the development of the desired learning outcomes and that sufficient provision is made for the outcomes to be demonstrated and assessed.

One of the implications in assessment practices is that teachers will rely less on examinations, which tend to focus on recall of information. They need to assess and report on what students actually understand, know and can do. Instructors need to ensure that

assessment tasks are designed to fulfill the outcomes of a course. One way of ensuring this is by directly linking the assessment criteria to the learning outcomes. It is essential that the criteria used for the assessment of students' achievement should correspond to the knowledge, abilities and skills that are identified in the learning outcomes. Teaching staffs need to do more than merely rank students from the highest to the lowest achievers.

Learning outcomes are difficult to measure using traditional grading practices; therefore, new assessment techniques must be developed to measure specific outcomes. The norm-referenced assessment practices used in higher education institutions are not suitable for successful implementation of outcomes approach to learning.

Thus higher education institutions will need to review their assessment criteria in relation to criterion referenced in order to be capable of differentiating levels of achievement of the learning outcomes. Each higher education institution should design strategies on how the students will be assessed in relation to the intended learning outcomes, and checks whether instructors' assessment tasks are matched to the learning outcomes.

Ethiopian Higher Education Student Learning

The teaching and learning within the Ethiopian higher education is presently very teacher-led and curriculum-based that focuses on the contents to be covered. Course objectives generally cover knowledge but often not skills and attitudes. They do not specify employability qualities to be developed such as communication, report writing and working as part of a team. The instructors usually use lecture notes that mostly work in a "chalk and talk" situation.

Learning is often measured by testing students on the material they have received from the instructor through lectures. The assessment methods in the higher education institutions are relatively ineffective to measure and test a wide range of work-related skills and abilities

like problem solving abilities, teamwork capability or communication skills. It is not a common practice to use evaluation techniques such as group work and team assessment, oral presentation, or report writing.

Most of the Ethiopian higher education institutions use norm-referenced assessment techniques that focus on how students' achievements vary within a group. The assessment is comparative, telling that one student is better than another student. The achievement of student learning is often measured by testing students on their knowledge of the content covered. The norm-referenced assessment is not associated with learning outcomes, and it is inappropriate for measuring students' achievements.

Daniel (2004) examined the way teaching and learning experiences are organized, the approaches that are adopted, the institutional support made available for teachers and learners, and related issues in the Ethiopian higher education. Dominance of the lecture method, poor guidance and counselling services, lack of pedagogical training, lack of experience and qualifications of teachers, attitude towards education courses and teaching, evaluation mechanism, limitations in the area of research, and shortage of resources and facilities were identified as problems that affect quality of teaching and learning in most higher education institutions.

It is observed that the performance of university graduates in the workplace was not as much as expected. Most graduates were good in theoretical knowledge, but poor in skills and in the application of the knowledge they gained from the universities in the real world of work. A study recently conducted (Ashcroft, 2005) indicated a mismatch between Ethiopian employer and stakeholder requirements and the curriculum, pedagogy and assessment methods commonly developed by the higher education institutions.

The study was based on interviews that were held with a range of representatives of ministries, donor organizations, NGOs and

employers. The interviews conducted revealed an apparent pattern of weaknesses in the graduates that are presently coming out of the higher education institutions. One common problem is that graduates lack practical competence.

Ethiopian institutions of higher education mainly focus on the quality of certain inputs (curriculum content, staff qualification, physical resources and so on). They assess to a lesser extent the quality of processes (teaching, learning and assessment methods) and outcomes (the employability of graduates, employers satisfaction). The quality and standards of academic outcomes is the most important feature of higher education institutions and so this lack is crucial (HESO Report, 2004). Ethiopian higher education generally lacks systematic ways of assuring outcome standards.

In response to rising concerns regarding educational quality of higher education, the Ethiopian Government introduced a higher education proclamation in 2003 to reform the higher education system. As part of the higher education reform actions, the government has recently established a Higher Education Relevance and Quality Agency, HERQA. The agency is mandated to follow up and supervise the quality of higher education institutions in the country. Its main task involves establishing an appropriate national system of quality assurance within the higher education institutions, which guarantees the availability of appropriate and effective learning, teaching, and assessment that, ensures that the outputs of the educational programs meet the development needs of the country.

A higher education capacity building program in Ethiopia is following a strategy to provide good quality higher education to larger numbers equitably but with diminishing dependence on public resources on the long term (Teshome, 2004). The expansion and reform increasingly requires higher education to be responsive and proactive towards addressing the needs of the country by producing competent graduates and undertaking relevant research and studies.

The achievement of appropriate outcomes is the point of higher education, and therefore, their measurement and monitoring systems is most important (Ashcroft, 2003). Ethiopian higher education institutions should now be responsible for assuring the quality, relevance and standards of their students' achievements, the curriculum, teaching, learning and assessment processes, and students' facilities for learning and so on.

Recommendations

This paper proposes the following four recommendations that might help to promote the implementation of outcomes approach to learning within the Ethiopian higher education system. These could be action priorities that draw more attention in the effort to ensure quality of learning in higher education.

1. Initiate dialogue within the academic community
2. Develop pedagogical skills of the teaching staff
3. Promote subject benchmarking practices
4. Conduct survey of graduate's employability and employer satisfaction

Initiate Dialogue within the Academic Community

The all-important first step is to open a dialogue within the academic community about outcomes based learning and its implications to Ethiopian higher Education system. It is important to initiate a campus-wide discussion in all higher education institutions to reflect a commitment to excellence in student learning, and to define strategies for implementing outcome approach.

Academic staff must bear a particular responsibility for beginning a dialogue about their own educational programs, examining their willingness and ability to restructure their programs, courses, and assessment procedures to be consistent with improving learning outcomes. The determination of learning outcomes should be based on educators' careful and broad analysis of what a competent

graduate of the program should be able to do. The learning outcomes of an educational program and the typical achievements of students when they graduate in that subject area need to be identified through discussions in a group of subject specialists.

All higher education institutions should work together to develop a clearer, collective view of what it is that a graduate should know, understand and be able to do. They should make clear what skills, competences, knowledge and understanding students would have acquired as a result of their higher education programs. Associations of public and private higher education institutions should play their part in promoting outcomes approach to learning.

The Higher Education & Relevance Quality Agency, and the Ministry of Education might coordinate consultative workshops involving all stakeholders including subject specialists, professional associations, policy makers and employers to discuss how to develop learning outcomes for a wide range of subjects, and debate about outcomes approach and its implications on curriculum review, teaching/learning strategies, assessment methods, student performance criteria, and quality enhancement in the Ethiopian higher education system.

Develop Pedagogical Skills of the Teaching Staff

There must be major improvements in the teaching/learning methods to successfully implement the outcomes approach in the Ethiopian context. One logical direction for improving the current educational practice is to encourage new pedagogical approaches in higher education. The established Academic Development Resource Center (ADRC) in each higher education institution could provide resources, technical support, and training to help teaching staff develop pedagogical skills that promotes the implementation of the outcomes approach.

Higher education institutions could develop a pedagogic training program to develop instructors' skills that support systematic

curriculum review and design. The ADRCs may facilitate the training of teaching staff on campus that encourage instructors to put into practice the techniques, methodologies and new ways of doing things in view of the outcomes-based learning. The National Pedagogic Resource Center (NPRC) has a key role in coordinating such activities.

Promote Subject Benchmarking Practices

Subject Benchmarking promotes an outcomes approach to learning in which the results of learning are expressed in a form that permits their achievement to be demonstrated and measured.

Subject benchmarking is a method of self-evaluation aimed at improving the quality of student learning in higher education institutions by providing a set of reference points or benchmarks related to the key features of a program (including the educational aims, intended learning outcomes, teaching/learning strategies, assessment methods and performance criteria) that can be used to compare against what the institutions are doing and actual student performance.

Subject benchmarking is used as a point of reference against which the outcomes and relevance of educational programs can be justified. It is useful to promote professional dialogue about the educational outcomes of programs between the academic communities.

Subject benchmark information can be used as a reference point for curriculum review, design and validation (Jackson, 2000). The practice of subject benchmarking is as an essential tool for improving instructional methods at colleges and universities.

Recognizing the importance of benchmarking for enhancing the quality of higher education in Ethiopia, the Higher Education Relevance & Quality Agency has prepared a draft document of general subject benchmarking guidelines (HERQA, 2005). The

initiative of HERQA shall be further developed. A national guideline of subject benchmarks that provide reference points for learning outcomes to indicate the knowledge, abilities and skills expected from degree programs graduates of Ethiopian higher education institutions shall be developed.

Conduct Survey of Graduate's Employability and Employer Satisfaction

One of the key areas that Ethiopian higher education institutions must become accountable for is the employability of their graduates and the quality of the learning outcomes that they bring to the workplace. Increased responsiveness to labor market demand and employer feedback is essential to improve the quality of higher education.

Higher education institutions need to conduct surveys of the labour market (demand/supply balance) for their graduates. They need to set up some processes for systematically surveying employer satisfaction with graduates to assess the extent that programs have succeeded in achieving their aims and learning outcomes. It is important to develop graduates and employers' feedback mechanisms that can help institutions improve their teaching/learning and assessment methods, and enable the desired learning outcomes to be achieved more effectively.

Conclusions

Ethiopian higher education institutions have a responsibility to establish mechanisms that encourage change in teaching and learning. They need to revise their current teaching and learning practices in view of outcomes approach, and update their instructional and assessment methods to make student learning more effective. An outcomes-based learning shall be introduced in Ethiopian higher education to assure that students graduating from college programs will possess relevant knowledge and skills to be successful in the workplace. Ethiopian higher education institutions need to adopt an

outcomes approach to learning in order to improve the overall quality of education provision, and to meet the expectations of students, employers and other stakeholders. The commitment of all those working in the higher education sector is necessary for the successful implementation of outcomes approach to learning.

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