# Assessment-Based Training: A Drive Towards Enhancement of Assessment Quality in Universities.

#### Albert Mada

#### **Abstract**

This study aims to promote assessment – based training as one of the major factors influencing operations and practices in universities with regards to staff performance towards improved quality service delivery. A purely qualitative inquiry was used to collect and analyse data for this study. A semi-structured interview approach was used to collect data from the participants. Results were recorded verbatim and then analysed and discussed. The study established that many lecturers in the universities are not trained in formative and summative assessment. Most lecturers are drawing their practices from how they were assessed when they were students. According to results from this study it is therefore recommended that universities should provide lecturers with assessment-based training to equip and enhance them with competencies and (assessment) skills in assessing students, for example, assessment and teaching and learning, activities, and examinations setting, questioning techniques, grading.

**Key words**: Assessment-based training, University assessment, University teaching, quality, teaching.

#### **INTRODUCTION**

Assessment in Higher Education (H.E) has been subject to many developments. Nonetheless, student assessment in Universities has been given little attention except only to the level of the known classical studies of psychometrics. However, there has been convergence of attention on assessment from the public, calling for more accountability, transparency, and fairness (Greiff & Kyllonen, 2015). As a result, interesting studies have been witnessed placing assessment at a didactic crossroads (Matovu, 2014; Campell, 2015; Maki, 2015). It is argued in this paper that assessment-based training is an inevitable backbone of student assessment reform and success measure of any lecturer to be considered a successful assessor.

Student assessment occupies an important position in H.E. Therefore, it has the potential to impinge on policy, management, and cultural issues. In this paper, the following issues are unveiled: student assessment quality, assessment economic cost and current debates. There is compelling evidence internationally that student assessment in H.E is an area begging for attention and improvement as evidenced by different quality agencies around the world such

as Quality Assurance Agency (QAA), Zimbabwe Council for Higher Education (ZIMCHE), for example, a CE Query tool analysing student comments on assessment pointed to the following sub-domains: Relevance, Marking, Expectations, Feedback/return and Standards. As Campell (2015:12) states, "while students are equivocal about the relevance of assessment, they are more likely to be unhappy about the way their work is marked, unclear about the feedback they receive and unclear about the standards of assessment". It would not be long before students consider marks and grades as commodities of a particular purchase price and spending power and that they have committed their investment in the fees with the hope of a life-time return – grades and marks are worthy money, and therefore, a degree becomes a "commodity, bought to specification and with an expectation the supplier will without fail deliver" (Connolly et al, 2006:136).

As highlighted by Matovu (2014), there are various types of assessment which are: assessment for learning, assessment of learning and assessment as learning. Assessment for learning is formative assessment and helps student revisit their mistakes, learn from colleagues and past experiences (Black et al, 2004; Duncan and Noonan, 2007, Matovu, 2014). Assessment of learning is equal to summative assessment. It is a single shot appraisal used to entertain students' attainment of the required knowledge in totality (Swaffield, 2011). Assessment as learning is where students make self-assessment on themselves (McDowell et al, 2011). Assessment as learning helps students discover and learn from own mistakes. Duncan and Noonan (2007) and Matovu, (2014) contend that literature is deplete of other factors that influence assessment and these are assessment-based training, academic level, area of specialisation and class size.

### **Empirical literature on assessment**

Effective assessment in any learning environment heavily depends on the quality of assessment training lecturers possess (Zhang and Burry-Stock, 2003; Matovu and Zubairi 2014). Training lecturers in assessment is just but the only sure way universities can staff develop their lecturers into good assessors. Assessing is more than just asking a question, it is not everyone who can assess and let alone assess well. Staff who are not trained in assessment certainly would need assessment-based training (Duncan and Noonan ,2007; Matovu and Zubairi ,2014; Sato *et al.*, 2011; Brookhart,2003; Masole, 2009). Training influences academic staff's assessment practices. Studies have also established that lecturers' possession of good assessment competencies and skills make them adequate in assessing students (Zhang and Burry-Stock, 2003).

Allowing academic staff who do not have good or proper assessment competencies and skills is academic suicide in the teaching-learning environment (Popham, 2009). It is during assessment that lecturers knowingly or unknowingly take decisions with far-reaching effects on the academic life of the student. From the many studies on assessment, it has since been established that most of the lecturers in universities have inadequate competencies and skills in assessment (Phamotse, 2011; Alkharusi, 2011, 2012; Duncan and Noonan,2007; Matovu and Zubairi, 2014; Sato *et al.*, 2011). On the other hand, research supports that those lecturers with assessment-based training have better competencies and skills in assessment than those who have not undertaken any assessment-based training, (Masole, 2011). For example, a study that undertook to analyse assessment and skills of academic staff in Universities reported that most of the lecturers were incompetent in assessing students and also that a few academics had undertaken assessment-based, training (Alkharusi 2011, 2012; Phamotse et al, 2011; Masole, 2011).

In universities, assessment-based training for majority of lecturers is largely optional, confirming that assessment-based training is not taken with the seriousness it deserves, (Phamotse, 2011) though the importance of assessment is inevitable in the learning – teaching process (in universities), (Ibid). Lecturers ought to be equipped with adequate and innovative competencies for assessing students in ways they design, administer, interpret and apply results obtained from the assessments (Koloi-Keaikitse, 2012). There is a wide-ranging advocacy for assessment-based training for lecturers in order to improve their assessment practices, as they administer their far-reaching decisions in a manner that does not maim, wound or kill the learner's present and subsequently the future (Matovu and Zubairi, 2014).

### Other factors that seem to impact on assessment are:

- a) Academic level or staff qualifications have an influence on how lecturers assess (Noordin and Fusoff, 2009). Progressing through academic level is linked to experience which in turn can influence lecturer's assessment practices (Safo et al, 2008). Continuous interaction with assessment gives advantage to a lecturer who has taught for a longer period, with more experience and high academic levels to have good assessment practices (Masole, 2011). While some studies have shown no correlation between academic levels of lecturers and their assessment practices (Ibid).
- b) Class size (Academic) lecturers assessment practices have been linked to the class size assessed (Koloi-Keaikitse, 2012). The nature of class size influences the practice

of assessment. Large class sizes in assessment are viewed as a threat to the quality of assessment.

Even though there has been advocacy on rethinking and reviewing assessment for the next decade and beyond, for example, 'Assessment 2020', very little could be achieved unless universities engage their lecturers in assessment – based training on the backdrop of the fact that assessment is a central feature of teaching and learning. Assessment is making of judgements about how students' work meets standards and assessment fosters learning and certification (Rowntree, 2015 Sato *et al.*,2008). Assessment therefore, does not only measure learning, but it also directs learning. So, one wonders what damage is made when an 'unlicensed assessor' is entrusted with the responsibility of student assessment.

### Assessment effects on learning outcomes

Rowntree (1997), cited in Ramsden (2003, p.65) and Willis (2011), says, "if we wish to discover the truth about an educational system, we must consider its assessment procedures." The methods used to assess students are one of the most critical of all influences on their learning. Two aspects must be considered: the amount of assessed work and the quality of tasks. Unsuitable assessment methods impose irresistible pressure on a student to take the wrong approaches to learning tasks. It is assessment methods, not the student that is the cause of the problem. Researchers on assessment such as Morante (2003), Struyven, Dochy and Janssen (2005) found that excessive assessment has a negative effect on students' attitudes to studying and approaches to learning. The process of assessment influences the quality of student learning in two crucial ways: it affects their approach to assessment and, if it fails to test understanding, it simultaneously permits them to pass courses while retaining the conception of subject matter that lecturers may wish changed. Should the assessment of students' learning go no further than testing what can be unreflectively retained in their memories, misunderstandings will never be revealed.

Assessment must engage students into productive learning by focusing students on learning and by itself being a learning activity calling for engagement and appropriate tasks. Feedback is important to actively improve learning by being informative and supportive as well as facilitating future learning. Students seek and use timely feedback to improve quality of learning. It is not marking and grades, but how to improve the quality of students work that becomes important if assessment is directed well (Maki, 2015; Tourney-Purta *et al.*, 2015). Good assessment must make students and lecturers responsible partners in learning and assessment. Students take responsibility for assessment and feedback and develop

demonstrable ability to judge their own work and that of others. In this way dialogue and interaction about assessment and standards becomes common-place among lecturers and students

Students must be inducted into the assessment culture of the university where assessment practices are carefully structured with assessment practices that respond to diverse expectations and experiences (Rowntree, 2015 Sato *et al.*,2008). Assessment for learning must be central. Course and program design must be organised holistically and with complementary integrated tasks. Lecturers need support in developing expertise required for program assessment responsibilities measured against consistent national and international standards. Evidence of overall achievement is to be based on assessment of integrated learning (Rowntree, 2015).

#### Purpose of the study

This study investigated the significant factor influencing student assessment practices by lecturers in universities. This study investigated how a factor such as assessment-based training influences assessment practice of lecturers in universities.

#### Research question

The following research question guided the study:

Does assessment-based training influence assessment practices among academic staff in universities?

#### Methodology

This section describes and justifies strategies used for this study, by addressing research design, sample and sampling technique, data collection, and data analysis.

#### Research design

The study adopts a purely qualitative study and a descriptive survey was adopted for the study. The qualitative method rooted in the interpretive philosophical paradigm supporting the view that there are many truths and multiple realities (Creswell, 2014). This paradigm focuses on holistic perspective of the person and environment which befits the assessment and/or analysis of methods, (Weaver & Olson, 2006). This paradigm provides an opportunity for the voice, concerns, and practices of participants to be heard (Creswell, 2014). Qualitative methods are more concerned about uncovering knowledge about how people feel and think in the circumstances in which they find themselves, rather than making judgments about whether those thoughts and feelings are valid (Cole, 2006).

Qualitative research 'relies' primarily on the collection of qualitative data (Creswell, 2014). While the descriptive aspect is regarded as a strength which enables a researcher to take as much detail as possible, for purposes of this study, the qualitative approach enabled an exploration of how assessment-based training influences assessment practices of lecturers in universities.

### Sample and sampling technique

The sample size for this study had ten participants from two universities. Table 1 shows the participants of this study.

Table 1 – Participants, institution, role, and level.

Participant	Institution	Role and Level
Partic1	A	Lecturing – Lecturer
Partic2	A	Lecturing - Senior Lecturer
Parict3	A	Lecturing – Lecturer
Partic4	В	Lecturing - Senior Lecturer
Partic5	В	Lecturing – Lecturer
Partic6	В	Lecturing - Lecturer
Partic7	В	Lecturing – Lecturer
Partic8	В	Lecturing - Senior Lecturer
Partic9	A	Lecturing – Lecturer
Partic10	A	Lecturing – Lecturer

Data was collected through descriptive survey using semi-structured interviews. Purposive and convenience sampling were used in selection of study sites and participants respectively, from two universities.

#### **Data Collection**

The researcher personally collected data from purposively and conveniently selected participants from private universities in Zimbabwe. The identified participants were approached, briefed on the purpose of the interview and those who agreed were then interviewed and it took four days. There were no specific criteria on whether the participants had taken an assessment-based training or not. Somehow the study helped in ensuring some representativeness.

#### **Data Analysis**

Responses were coded, and themes were established, and verbatim quotes reported.

#### PRESENTATION AND ANALYSIS OF THE FINDINGS

Research findings are presented in the order in which the five semi-structured interview schedules were carried out with the participants.

#### 1. What do you understand by Assessment? What about assessment-based training?

Under these two questions, participants had a satisfactory understanding of what assessment is, judging from the responses they gave. For example,

one said, "Assessment is the process of measuring student progress" and another said, "It's a way to evaluate and make a decision on student progress." And yet another said, "It is a process which requires one to weigh different propositions with no judgements"

However, on the issue of assessment-based training the participants seem not to have any idea about it as all of them said they had never known what it is. It has not been talked about or popularised at least in the universities represented in the sample.

# 2. Do you think training in assessment is valuable?

On this question lecturers believed assessment is valuable, for example, one had this to say;

"There is need for universities to train their staff on assessment as most of us are just thrown in the deep end and expected to be good assessors." Another said, "assessment is valuable because it facilitates and promotes fairness, transparency." And yet another said, "Not having it affects pedagogical approach of the lecturer."

Lecturers on training in assessment seem to suggest need for training, also expressing how inadequate they seem to be as they realise that they lack the prerequisite. Responses of the lecturers also show that they see the importance of training and the effects of lack of it as they discharge their duties.

#### 3. What would you consider as major benefits of assessment?

On this question lecturers made the following observations, for example, one said:

"One of the benefits is to map a way forward, facilitate judgement, self-introspection and ethical interaction."

Another said:

"Knowledge in assessment helps to bring the lecturer to the level of students, improve quality of assessment tools and questioning techniques."

Yet another said:

"Assessment helps me to be fair and transparent to my students."

There seems to be a clear understanding on the major benefits of assessment and chiefly from those who have been trained in assessment, who value its benefits. Assessment issues must be at the core of any teaching and learning to give a lasting and memorable experience to the learner.

## 4. Do you think assessment can improve the way you teach?

One of the participants had the following to say:

"Oh yes, yes, it does, both sides learn from each other as it determines what happens to both students and lecturer."

Another had this to say:

"It is Bi-dimensional and should facilitate growth as lecturer is not all knowing, we should learn more from students and that subsequently should improve our teaching and learning experience."

Another participant had this to say:

"Had I been trained in assessment, I would find an easy link between the two, casually I hope it does yes."

It can be deduced from the responses that views differ from one respondent to the other showing a clear line between those who are trained and those who are not. Certainly, assessment should improve anyone's teaching as it informs the approaches, methods and planned activities as the lecturer delivers his lecture to students. There is no successful teaching that can happen without successful assessment. Students' experiences are a culmination of the assessment methods they are or would have experienced during their studies. Assessment methods employed define the quality of the graduate any institution produces. One of the outstanding features of studies of assessment in recent years has been the shift in the focus of attention towards greater interest in the interactions between assessment and classroom learning and away from concentration on the properties of restricted forms of test which are only weakly linked to the learning experiences of students (Rowntree, 2015; Griffith, 2016). This shift has been coupled with many expressions of

hope that improvement in lecture-room assessment will make a strong contribution to the improvement of learning.

#### 5. Are you trained in assessment?

Majority of the participants acknowledged that they are not trained in assessment, one had this to say:

"I am not trained at all, I draw from my experience as a student then use how I was assessed and that is how I have survived in this career, But, I think I would be more effective if I were trained."

Another said:

"It's not a requirement at university, so I am a specialist in the area I teach."

Yet another said:

"It's sad indeed, I have seen the importance of being trained, somewhat I feel inadequate, but you see no one has ever suggested such training and after passing interviews am on my own."

The majority of lecturers are not trained in assessment and even those who are trained might need re-training. It is a big disjoint with other educational levels, that assessment training has not been given priority in Higher Education. From the responses, one can infer that the need for training is however a welcome idea with most of the lecturers. With the fast pace of technology, certainly, there is need to embrace new ways of assessing, to make our students global citizens who can function in any part of the world.

#### **DISCUSSION**

#### The central role and primacy of assessment

Literature reviewed showed forcefully the central role of assessment in Higher Education, for example, that assessment shapes and influences students' experiences and behaviour more than the lecturing/teaching they receive. As Gibbs and Simpson (2004:22) state, "there is more leverage from the influence of assessment that teaching and learning can be improved through changing assessment than in changing anything else." To a very large extent, assessment activity in H.E is the learning activity. Students may be subjected to very good lectures and do all sorts of activities from excursions to seminars, from lecture notes to laboratory activities, but real learning for most of them is that time when now they would be forced or faced with assessment tasks. Only then do most of them engage with their collection of material, for

example, lecture notes, field activities, laboratory activities (Huges, 2014; Coates, 2015; Matovu & Ainol, 2015).

However, literature has also shown that university assessment practices lack effectiveness because they are guided by the unlicensed, the untrained in all respects of assessment training (Murphy, 2006). The problem is not mitigated by the 'amateur' status of many academics regarding assessment (Ramsden, 2004:177). The same lecturers who only might have learnt the craft of assessment informally engage in assessing through similar experiences they underwent themselves at university, but still lack scholarship regarding assessment (Price, 2005). There is therefore need for universities "to provide a reliable route for ensuring that research on assessment reaches those doing the assessing" (Bloxham and Boyd, 2007:12).

Literature also shows that contemporary demands of H.E influence and pressure how assessment should be done, thus, creating a force for change of assessment. The student body is also changing with 'reliance on part-time work and other commitments appear to be turning students into very strategic learners who are unwilling to devote effort to study which does not contribute to summative assessment (Kneale, 1997 in Bloxham and Boyd, 2007). Poor early experiences of assessment are associated with high student attrition rates (Ibid). Poorly administered assessment methods are academically punishing and disadvantaging students with punitive grading, assuming student should be shown how much they do not know lest they show they know more than the lecturer, meaningless comments, and even disrespectful remarks – all these discourage the student in the name of being assessed (Matovu & Ainol, 2015).

More so, now than ever, employability and graduate skills agenda is forcing and demanding lecturers to assess a range of activities in subject knowledge and other range of both intellectual and professional skills. It therefore means lecturers are expected – if not forced to modify assessment, to support students through student involvement in assessment, prompt feedback, flexible and formative approaches through use of a variety of assessment methods (Rowtree, 2015; Astin, 2012). However, not forgetting the influence of technological advancement that has created a breeding ground for plagiarism among students, while mediation of rules and regulations, assessment processes by departments, peers and individual lecturers may be influenced and obviously constrained by locally biased and taken for granted assumptions and myths that 'anyone can assess' that any 'holder of a degree qualifies to assess (Greiff & Kyllonen, 2016; Greffith *et al.*, 2016).' In this respect, policy environment/climate in relation to quality assurance and quality enhancement forces us to pose and think the direction of Assessment-Based Training for lecturers in universities. Assessment tips which abound show

that improvement of assessment is largely a representation of a 'Cottage industry' lacking a systematic theoretical basis for understanding judgement of achievement ... thus attempts to enhance assessment practices are built on sand' and therefore lack a strong assessment foundation (Knight and Yorke, 2003:209).

As hinted above, it is also imperative for assessors to know that assessment purposes may be usefully categorised as: Assessment of learning, Assessment for learning, Assessment as learning (Coates, 2015; Ewell, 2009; Campbell, 2015).

- a. Assessment of learning how we may traditionally view assessment, that is, making judgements about students' summative achievement for selection and certification also used for university league table, that is, the good degrees awarded.
- b. Assessment for learning is formative and diagnostic, provides information about student achievement which allows teaching and learning to be activities to be changed or adjusted, in response to the learners' needs need for feedbacking the learner.
- c. Assessment as learning a subset of assessment for learning encourages student's involvement in assessment feedforward.

Literature shows evidence of negative 'backwash' effect (Biggs, 2003) on student learning and achievement because of poorly conceived assessment strategies. The importance of any university having assessment-based training for lecturers is that, lectures will then not neglect paying attention to their assessment practices and if they do, they will be ignoring an important opportunity to enhance students' effort, approach, and outcomes (Bloxham and Boyd (2007). According to Klenwski, 2002; Earl, 2003; Sadler, 1989 and as stated in Bloxham and Boyd (2007), students should be favoured with the following by their assessors:

- Students must know the standard or goal that they are trying to achieve (assessment guidance)
- They should know how their current achievement compares to those goals (feedback)
- They must act to reduce the gap between the first two (applying feedback to future assignment feedforward).

#### **Conclusion**

It can be concluded that universities cannot think of re-engineering best practices in assessment with lecturers who lack formal training in assessment. Assessment-based training has been identified as a main predictor of the assessment practices of university academic staff,

supporting the finding which highlighted that assessment-based training improves assessment practices of academic staff (Masole 2011, Coates 2015, Phamoste et al, 2011, Alkharusi, 2012). As can be noted from the results of this study, assessment-based training undertaken by the lecturers is relevant for their practice, and if not undertaken, it affects the ways they assess students. According to Tindal and Haladyna (2002) as quoted by Coates (2015), academic staff who are lacking adequate assessment training and skills are not expected to effectively assess the students they teach. If they assess effectively, then, their major aim of assessing concentrates on the learning outcomes rather than on improving the learning process. It is concluded that if lecturers lack assessment-based training in various components such as designing, administering, interpreting, and applying results got from assessment, they end up engaging in poor assessment practices that will affect fairness, transparency, and accountability in the assessment process. Therefore, this research recommends that staff in universities should undergo assessment-based training.

#### Recommendations

From the conclusions of this study, it is recommended that universities should provide assessment-based training to their academic staff to ensure that they are equipped with proper assessment skills, confirming what researchers such as Duncan and Noonan (2007), Coates, (2015) Masole, (2009, 2011) found out. It is of no doubt that lecturers are often compelled by circumstances of job opportunities to do or learn on the job – Academic apprenticeship – as far as assessment is concerned, often guided by yet untrained assessment leaders in the department. Yet they are expected to assure and enhance quality – a proverbial academic parable of the blind assessor leading another assessment blind. There are strategic institutional rationales for improving assessment using trained assessors to assess student learning, which should signify non-trivial ways of what an institution delivers – which might imply variations in education and graduates (Coates and Richardson, 2012). Academics require professional training and development to improve competence in assessment which currently is spasmodic – therefore a call for assessment-based training and even re-training for lecturers teaching at Universities.

As has been discussed before, most academics learn their trade (Lectureship) through what could be termed 'an informal apprenticeship, while competence in assessment is no exception. This does not discount the need for creating more systematic forms of professional development (Coates, 2015). It is most likely then, that, if consideration is not given to expertise in assessment, student learning will not change given the low priority assessment-

based training by institutions. There is need to understand the 'assessment supply and value chain', and how it can be improved at universities.

#### References

Alkharusi, H. (2011). Teachers' classroom assessment skills: Influence of gender, subject area, grade level, teaching experience and in-service assessment training. *Turkish Science Education*, 8(2), 39-47. Retrieved from <a href="http://www.tused.org">http://www.tused.org</a> [May 2018].

Alkharusi, H. (2012). Educational Assessment attitudes, competencies, knowledge, and practices: An exploratory study of Muscat teachers in the Sultanate of Oman. *Journal of Education and learning 1(2)*. 217-232. Retrieved from <a href="http://dx.doi.org/10.5539/jel.vln2p217">http://dx.doi.org/10.5539/jel.vln2p217</a> [May 2018].

Astin, A.W. (2012). Assessment for Excellence: The Philosophy and Practice of Assessment and Evaluation in Higher Education. Plymouth, UK: Rowman and Littlefield.

Campbell, C.M. (2015). Serving a different master: Assessing college educational quality for the public. In M.B. Paulsen (Ed.), *Higher Education: Handbook of Theory and Research* (p. 30). Switzerland: Springer.

Coates, H. (2015). Assessment of Learning Outcomes. Entre for the study of Higher Education: The University of Melbourne, Australia.

Coates, H., & Richardson, S. (2012). An international assessment of bachelor degree graduate's learning outcomes. *Higher Education Management and Policy*, 23(3), 51-69.

Ewell, P.T. (2009). Assessment, Accountability, and Improvement: Revisiting the Tension. Champaign, IL: National Institute for Learning Outcomes Assessment.

Fain, P. (2015). Measuring motivation. *Inside Higher Education*, September 28. Available: <a href="https://www.insidehighered.com/news/2015/09/28/nonacademic-skills-test-ets-fills-blanks-students-likelihood-success">https://www.insidehighered.com/news/2015/09/28/nonacademic-skills-test-ets-fills-blanks-students-likelihood-success</a> [May 2018].

Falchikov, N. (2013). *Improving Assessment through Student Involvement: Practical Solutions* for Aiding Learning in Higher and Further Education. New York: Routledge.

Gibbs, G., & Simpson, C. (2004). Conditions under which assessment supports students' learning. *Learning and Teaching in Higher Education*, *1*, 3-31.

Greiff, S., and Kyllonen, P.C. (2016). Contemporary assessment challenges: The measurement of 21st century skills. *Applied Measurement in Education*, *29*(4), 243-244.

Griffith, R.L., Wolfeld, L., Armon, B.K., Rios, J., and Liu, O.L. (2016). *Assessing Intercultural Competence in Higher Education: Existing Research and Future Directions*. ETS Research Report, Early View Article. Available: <a href="http://onlinelibrary.wiley.com/doi/10.1002/ets2.12112/abstract;jsessionid=597A7A04A37098">http://onlinelibrary.wiley.com/doi/10.1002/ets2.12112/abstract;jsessionid=597A7A04A37098</a> 8C4D4710C53A6885CC.f04t02 [May 2018].

Hughes, G. (2014). *Ipsative Assessment: Motivation through Marking Progress*. London, UK: Palgrave Macmillan UK.

Koloi-Keaikitse, S. (2012). Classroom Assessment Practices: A survey of Botswana primary and secondary school teachers. (Unpublished doctoral dissertation). Ball State University, Muncie, Indiana.

Maki, P.L. (2015). Assessment That Works: A National Call, a Twenty-First-Century Response. Washington, DC: American Association of Colleges and Universities.

Masole, T.M. (2009, September). Implementing quality performance assessment in agriculture. A paper presented at the 35<sup>th</sup> annual conference of AEAA Australia, Melbourne, Australia. Retrieved from <a href="http://www.iaea.imfo/documents/paper-4d73a42.pdf">http://www.iaea.imfo/documents/paper-4d73a42.pdf</a> [May 2018].

Matovu, M., & Ainol, M.Z. (2015). Self-perceived assessment competencies and practices among university lecturers, *Emerald Journal of Applied Research in Higher Education*, 7(2).

Noordin, F., & Jusoff, K. (2009). Levels of job satisfaction amongst Malaysian academic staff: Asia social sciences. Retrieved from <a href="http://www.ccsenet.org/journal/index.php/ass/article/download/.../1614">http://www.ccsenet.org/journal/index.php/ass/article/download/.../1614</a> [May 2018].

Phamotse, T.I., Nenty, H.J., & Odili, J.N. (2011). Training and Availability of Skills for Sustenance of Standard in Classroom Assessment Practices among Lesotho Teachers. *International Journal of Scientific Research in Education*, *4*(3), 190-201.

Popham, W.J. (2004). Why assessment illiteracy is professional suicide. *The Teaching for Meaning*, 62(1), 82-83.

Price, M. (2005). "Assessment Standards: The Role of Communities of Practice and the Scholarship of Assessment." *Assessment & Evaluation in Higher Education* 30 (3): 215-230.

Rowntree, D. (2015). Assessing Students: How Shall We Know Them? New York: Routledge.

Sadler, D.R. (2013). Assuring Academic Achievement Standards: From Moderation to Calibration. *Assessment in Education: principles, Policy & Practice* 20 (10: 5-19.

Sato, M., Chung, R.R., & Darling-Hommond, L. (2008). Improving teachers' assessment practices through professional development: The case of national board certification. *American Educational Research Journal* 45(3), 669-700. Retrieved at <a href="http://dx.doi.org/10.3102/0002831208316955">http://dx.doi.org/10.3102/0002831208316955</a> [May 2018].

Swaffield, S. (2011). Getting to the heart of authentic assessment for learning. *Assessment in Education: Principles, Policy and Practice, 18*(4), 433-449.

Weaver, K., & Olson, J. K. (2006). Understanding paradigms used for nursing research.

Journal of advanced nursing, 53(4), 459-469.

Torney-Purta, J.V., Cabrera, J., Roohr, K.C., Liu, O.L., and Rios, J.A. (2015). Assessing Civic Competency and Engagement in Higher Education: Research Background, Frameworks, and Directions for Next-Generation Assessment. ETS RR-15-34. Princeton, NJ: Educational Testing Service. Available: <a href="http://www.ets.org/research/policy\_research\_reports/publications/report/2015/jvdz">http://www.ets.org/research/policy\_research\_reports/publications/report/2015/jvdz</a> [May 2018].