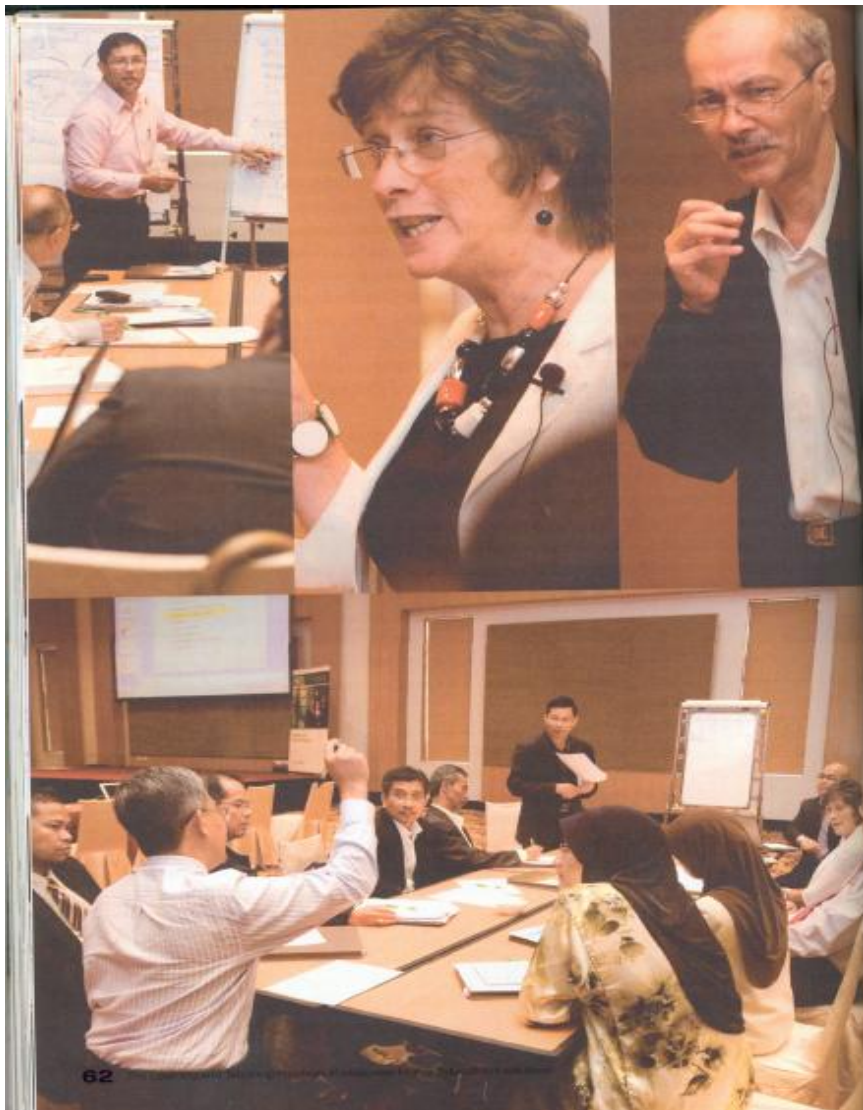




# Contents

THE LEARNING AND TEACHING PRACTICES IN  
MALAYSIAN HIGHER EDUCATION INSTITUTIONS  
A RESEARCH SUMMARY

Message, Foreword	3
AKEPT Centre for Leadership in Learning and Teaching	7
Executive Research Summary	9
Research Summary	
1. Learning and Teaching in Higher Education	19
2. Scholarship of Teaching and Learning	29
3. Understanding Learning	35
4. Learner Diversity	41
5. Learning Engagement and Motivation	49
6. Curriculum Design, Management and Development	57
7. Learning Assessment	63
8. Interactive Lecture	71
9. e-Learning	77
10. Problem-Based Learning	83
11. Project-Oriented Problem-Based Learning	89
12. Case Teaching	93
13. Modular Approach	99
14. Student Supervision	105
15. Industrial Training / Practicum	117



## 7 LEARNING ASSESSMENT

### Researchers

Professor Dr. Mohamad Sahari Nordin (IIUM) - Leader  
 Associate Professor Dr. Ainol Madziah Zubairi (IIUM)  
 Associate Professor Dr. Nik Suryani Nik Rahman (IIUM)  
 Associate Professor Dr. Tunku Badariah Tunku Ahmad (IIUM)  
 Associate Professor Dr. Zainab Mohd Noor (UiTM)  
 Dr. Mohd Burhan Ibrahim (IIUM)  
 Dr. Zainurin Abd Rahman (IIUM)  
 Dr. Joharry Othman (IIUM)

### Introduction

Assessment is a major component of curriculum of the institutions of higher education, and evidently it carries substantial weight in the equation of student learning. Assessment facilitates not only improvement of student learning, but also enables an institution to audit and certify that a student has achieved the learning outcomes and academic standards for the grades and qualifications. It offers evidence of student learning progress and subsequently student achievement, which is crucial for institutional accountability and public consumption. Justifiably, the literature recognizes that assessment is a significant driver of student learning (Yeo, 2004), an important indicator of teaching effectiveness (Daniel & King, 1998), and a centrepiece of educational improvement (Bond, 1994).

Of late, in addition to the ubiquity of assessment of learning, a lot of attention has been given to assessment for learning. It is a process of "gathering information concerning the functioning of staff, students, and institutions of higher education. . . the basic motive for gathering it is to improve the functioning of the institution and its people" (Astin, 1993, p. 2). On a somewhat similar note, Palomba and Banta (1999) assert that assessment is, ". . . the systematic collection, review and use of information about educational programmes undertaken for the purpose of improving student learning and development" (1999, p. 4). Assessment for learning is a catalyst for reformation in instructional practices (Sahari, 1999) because it develops students' self-regulation and self-directed learning, which are critical skills for lifelong learning in the 21st century knowledge based economy (Song & Koh, 2010). It bridges theory

and practices (Riley & Stern, 1998), and creates "a shared academic culture dedicated to assuring and improving the quality of higher education" (Ellyn, 2000, p. 2).

Furthermore, Barlow, Bertrand, Majkot, McLaughlin, and Speir (n.d.) found that assessment for learning changed the role of instructors, transformed students' image, and shaped the learning and teaching culture. They found that assessment for learning "shifts the culture from one of teacher centred to one of a continuous student-teacher dialogue, which drives instruction and planning." Barlow et al. note that the instructors in their study were perceptive and appreciative of the effects of assessment for learning. The instructors reported that this "new practice" positively transformed classroom interactions, which became more inclusive of student voice and language, student self-assessment, student ownership for their own learning, and instructional behaviours which are more responsive to student learning. These findings were supported by Black and William's (1998) review of studies on instructors' use of assessment for learning. The review concludes that across educational levels and students' age groups, assessment for learning (AFL) had the biggest and substantial effect as compared to other educational interventions; the effect size ranged between  $ES = .40$  and  $ES = .70$ .

In light of the preceding observation, several pertinent questions should not be ignored: What does it mean by practicing assessment for learning? What should instructors know and be able to do in developing and using assessment for student learning? Do instructors at the institutions of higher learning practice assessment for learning? Are they competent and professionally trained in conducting assessment for learning? Does instructors' perceived competence positively determine the practice of assessment for learning? Do instructors need training in assessment for learning?

The importance of instructors' practice of classroom assessment has been a focus in better-developed systems of education. Astin et al. (1996) for example, propose 9 principles of good practice for assessing student learning. Earlier, the American Federation of Teachers (AFT), the National Education Association (NEA), and the National Council for Measurement in Education (NCME) collaboratively formulated a set of standards for instructor competence in educational assessment of students. It is a competency framework upon which quality assessment practice can be identified, recognized and celebrated. There is a set of six standards of assessment competency (American Federation of Teachers, the National Education Association, and the National Council for Measurement in Education, 1990), which require instructors to be skilled in:

1. Choosing and developing assessment methods appropriate for instructional decisions.
2. Administering, scoring and interpreting the results of both externally-produced and teacher-produced assessment methods.
3. Using assessment results when making decisions about individual students, planning teaching, developing curriculum, and school improvement.
4. Developing valid grading procedures which use student assessments.
5. Communicating assessment results to students, parents, other lay audiences, and other educators.
6. Recognizing unethical, illegal, and otherwise inappropriate assessment methods and uses of assessment information. (pp. 30-32)

This framework forms the conceptual foundation of the present study, not including the second standard, i.e., administering, scoring and interpreting the results of both externally-produced and teacher-produced assessment methods. To date, there is no documented evidence supporting the multidimensionality of the assessment practice of instructors of the institutions of higher education.

### Research Objectives

This research addresses the following objectives:

- To determine the self-reported practices that constitutes meaningful and interpretable dimensions of instructors' assessment for learning.
- To identify the incidence of assessment for learning among the instructors in light of the standards for instructor competence.
- To substantiate correlational causal relationship between instructors' perceived competence and their practice in assessment for learning.

### Methodology

The measures of the two constructs of this survey study, instructors' self-reported practice assessment for learning, and their perceived competence in assessment for learning were adapted from previous studies (Mukki, 2012; Zhang, 1995; Zhang & Burry-Stock, 2003). The original instrument, the Assessment Practices Inventory (API) contains 67 items which describes school teachers' instructional tasks related to classroom assessment (Zhang, 1995; Zhang & Burry-Stock, 2003). Collectively the items represent six school teachers' assessment practice,

namely (i) use of paper-and-pencil test, (ii) conduct standardized testing and test revision (iii) communicate assessment results, assessment ethics, and grading, (iv) use performance assessment, (v) use of non achievement-based grading, and (vi) ensure reliability and validity. The internal consistency of the data ranged between  $r = .77$  and  $r = .89$ .

Mukki (2012) revised the instrument to fit the lecturers' assessment practices in teacher education institutions in Tanzania. The revised inventory, labelled Assessment Practices Inventory for Teacher Education (APITE) consists 54 items. Assuming unidimensionality of assessment practices, Mukki excluded items related to standardized testing, score reliability and test validity, and several paper-and pencil items. He added a new 12-item dimension—performance-based assessment—to the original API.

The instrument for the present study comprised the measures of demographic characteristics, instructors' self-reported frequency of practicing assessment for learning, and their perceived competence of using assessment for learning. Since the study adopted the standards for competence in educational assessment among instructors of higher education, only those items which are related to five standards are included. In particular, items related to the second standard for instructor competence, "administering, scoring and interpreting the results of both externally-produced and teacher-produced assessment methods," were excluded. The study applied expert-judgment to content-validate the importance and relevance of the items. Finally, the assessment practice inventory in this study contains the two constructs, each of which is represented by 23 items; each item is measured on a 10-point scale.

All instructors from 33 institutions of higher education (HEIs) in Malaysia constituted the population for the study. Using systematic sampling procedure at institution level, 1,500 instructors were selected. Only 1,064 returned the completed questionnaire, providing the study with 71% rate of response. The sample size was adequate in terms of producing dependable estimates of the population characteristics; the bound of error for the present study was 3% (Scheaffer, Mandenhall, & Ott, 1996).

The respondents were then randomly assigned to two equal-sized sub-samples; the first sample ( $n_1=534$ ) was to attend to first two objectives of the study, while the second sample ( $n_2=530$ ) addressed the third objective. Results of power analysis conducted a priori (Loehin, 1992; Stevens, 1992) indicated that each sample had adequate size and power to reject a null hypothesis with a moderate effect size, at  $\alpha = .05$ .

Results show that the two samples were comparable in terms of demographic characteristics. Similar distribution of respondents' gender was found in the sub-samples; 52.7% of the first and 51.6% of the second sample were male instructors. Less than one-half of the respondents in the two samples, 48.8% and 49.3% respectively were professor, associate professor and senior lecturers; the rest were lecturer and other academic personnel. The majority of the respondents in each sample, 51.7% and 52.6% respectively, were teaching in the areas of applied sciences and technology. The duration of teaching experience among the respondents in the two groups was almost identical, ranging between one to 44 years with a mean experience of 10 years.

### Findings

Confined within the scope of the study, the survey produced several noteworthy findings. The present results replicated earlier results. In addition the results extended understanding about the practice of assessment for learning among instructors of institutions of higher education.

First, the study offer new evidence that instructor's assessment practice is a multidimensional construct. The present study found four credible underlying dimensions of assessment practice, namely (i) using methods of assessment for learning, (ii) recognizing unethical, illegal, and inappropriate assessment methods, (iii) communicating of assessment results and feedback, and (iv) grading procedure and using assessment results. This finding is in keeping with the framework that postulates the standards of assessment competency (American Federation of Teachers, the National Education Association, and the National Council for Measurement in Education, 1990; Frazeir, 2007; Mukki, 2012; Zhang, 1995; Zhang & Burry-Stock, 1997; Zhang & Burry-Stock, 2003; Schaff, 2006). However, unlike the previous works, the present study established empirical evidence of the multidimensionality of the assessment practices among instructors of HEIs.

Second, "communicating results and feedback" found to be the most frequently practiced assessment standard in this study. On the other hand, "grading and use of assessment results" was the least frequently practiced. This is consistent with the results of earlier studies. For example, Mukki (2012) and Zhang and Burry-Stock (1997) specifically found that "communicating assessment results" was the least difficult, while "using assessment results when making decisions" was the most difficult standard to be endorsed by instructors. In addition, Schaff (2006) also found that instructors had the most difficulty in "developing grading procedure." Obviously these results offer implications for the development of

intervention curriculum aiming at enhancing instructors' assessment for learning.

Third, as expected, perceived competence exerted profound influence on assessment practice. The data supported that instructors' confidence in evaluating oral questions from students, assessing group participant, assessing student learning through observation, and assessing individual student's class participation and hands-on activities positively made an impact on practice. Surprisingly, perceived competence explained more than one-half of the variance in assessment practice. The impacted assessment practices were the incidence of recognizing unethical, illegal, and inappropriate assessment methods, communicating of assessment results and feedback, and grading procedure and using assessment results. This finding corroborates the importance of instructors' perceived competence in explaining assessment behaviours. It also suggests the need for instructional intervention to strengthen instructors' competence in assessment for learning.

#### Implications

Its contributions notwithstanding, the study did not address several notable concerns. First, one may wonder about the efficacy of the reported practices, as measured by the assessment practices inventory, in explaining student learning. For instance, the instructors reported that they frequently communicated assessment results and feedback. But, does the practice make students learn better? Recently Price, Handley, Millar, and O'Donovan (2010) argue against "many of the assumptions and beliefs about effectiveness of feedback practices" (p. 277). Hence, does feedback matter? It sure does, most likely when the mediators, suppressors and moderators of the relationship between feedback and student learning could be identified and delineated. This issue is yet to be systematically examined, and the results may enable the assessment practices inventory to be improved.

Second, the results of the analysis showed that inventory does not adequately account for several fundamental indicators of AFL, such as instructors' constructive alignment of assessment practices, personal reflection, portfolios, and technology-based methods of AFL (Barkhi & Williams, 2010; Heinrich, Milne, Ramsay & Morrison, 2009; de Jesus & Moreira, 2009; Liang & Creasy, 2004; Meeus, Petegem, & Engels, 2009). Neither did it cover indicators related to instructors' evidence-based practice nor the nine principles of good practices for assessing student learning (Astinet al., 1996).

Despite its limitations the study adds valuable information to the understanding of instructors' classroom practices of assessment for learning. The information would be very useful in the ongoing efforts in designing and implementing intervention programmes. It is also acknowledge widespread evidence that fundamental change in education can be achieved only slowly - through programmes of professional development that build on existing good practice. Thus we do not conclude that formative assessment is yet another "magic bullet" for education. The issues involved are too complex and too closely linked to both the difficulties of classroom practice and the beliefs that drive public policy (Black and Williams, 1998).

AKADEMI KEPIMPINAN PENGAJIAN TINGGI (AKEPT)  
Higher Education Leadership Academy  
Ministry of Higher Education  
Lebuh Enstek  
71760 Bandar Enstek  
Negeri Sembilan  
MALAYSIA

[www.mohe.gov.my/akept](http://www.mohe.gov.my/akept)

Tel: +606 799 7474  
Fax: +606 799 7440

