ASSESSMENT FOR LEARNING: CHARTING A FUTURE IN THE MALAYSIAN HIGHER EDUCATION

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Abstract

Assessment for learning is a significant driver of student learning. It serves as a catalyst for reform in instructional practices, and hence, the centerpiece of educational improvement. This presentation reports an intervention programs designed and implemented by an institution of higher education in Malaysia to capitalize on the potentials of assessment for learning. In addition, it discusses conditions that would enable assessment to facilitate meaningful learning among students of higher learning institutions in particular, and create a vibrant learning ecosystem, in general.

Keyword : Assessment, Learning, academic culture, instructional practice, training.

1. INTRODUCTION

Assessment of student learning is a major component of university curriculum, and evidently it carries substantial weight in the equation of student learning. A common belief is what gets assessed is what gets learned. Consistently, the literature acknowledges that assessment is a significant driver of student learning (Yeo, 2004), an important indicator of teaching effectiveness (Daniel & King, 1998), a centerpiece of educational improvement (Bond, 1994), and a catalyst for reformation in instructional practices (Sahari, 1999). 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, McLauglin, 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 centered 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 behaviors 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.

Of the limited understanding on instructors' assessment competence and practice, the literature paints a somewhat gloomy scenario. One recurring finding is that instructors are poorly prepared to adequately practice assessment for learning (Dorn, 2010; Freeman & Lewis, 1998; Kibreab, 2011; Lewis, 2005; Mukki, 2012; Palomba & Banta, 1999; Sahari, 1999; Song & Koh, 2010; Townsend, 2007). For example, Dorn (2010) claims that "although formative assessment is appealing in theory, its practice as well as its definition is inconsistent" (p. 328). Mukki (2012) found that instructors' difficulty in practicing assessment for learning was reliably associated with insufficient training and exposure. More surprisingly, evidence from different countries disclosed that even teacher educators neither practice nor provide training in assessment for learning adequately (Lewis, 2005; Morris, 1996; Townsend, 2007; Zubairi, Sanudin and Nordin, 2008).

In response to these shortfalls, colleges and universities across the globe have been applying some form of assessment policy, a majority of which was driven by state-mandated assessment policy (Augustine, Cole, & Peterson, 1998). Given the paramount importance of student assessment, there should be a sound policy to guide academic personnel in their practices. Although prescriptive literature abounds, information on the development, implementation, management, and impacts of the policy is relatively scanty (Mundhenk, 2004; Peterson & Einarson,

2001). Peterson and Einarson (2001) suggest that research in student assessment in higher education is still at its infancy, as there has been little "empirical evidence concerning how institutions have conducted student assessment and to what effect . . . and systematic examination of organization and administrative patterns at the institutional level developed to support student assessment efforts" (pp. 629-630). Of the limited empirical data, most of which reported state-initiated assessment activities (e.g., Cole & Nettles, 1999), the findings convey mixed signals. On the one hand, there are indications that institutions of higher education did not conform to the external requirements, lacked clear evidence on the effects of the policy in improving student performance and instructional practice, failed to generate commitment among faculty members, faced difficulties in changing the assessment practice and attitude of the faculty members, and perpetuated distrust, confusion and gaps in communication between policy makers and faculty members (Augustine, Cole, & Peterson, 1998; Banta, Lund, Black, & Oblander, 1996; Ewell & Boyer, 1988; Palomba & Banta, 1999). On the other hand, several studies found that the state- and externally-imposed assessment policies triggered institutional efforts and supports (Banta, Lund, Black & Oblander, 1996; Ewel, 1993; El-Khawas, 1995). Specifically, state-mandated assessment policies have prompted many institutions of higher education to initiate student assessment activities.

Its positive affects notwithstanding, state-mandated assessment policies are yet to fully capitalize on the potentials of classroom assessment, in particular its ability to motivate students to learn. The state initiatives, in addressing the demands for institutional accountability, have been underscored by the use of "smart test" (Berlak, 2001). Such assessment practices "served to obstruct learning, perpetuate and increase disparity" (Berlak, 2001, p. 20). The external initiatives have created mismatch between intentions and practices. Stiggins (2002) notes that,

> We are a nation obsessed with the belief that the path to school improvement is paved with better, more frequent, and more intense standardized testing. The problem is that such tests, ostensibly developed to "leave no student behind," are in fact causing a major segment of our student population to be left behind because the tests cause many to give up in hopelessness—just the opposite effect from that which the politicians intended. (p. 759)

Hence, instead of motivating students to learn more, the externally initiated assessment policy works mainly on auditing student achievement and school performance. In Stiggins' (2002) terms, the assessment efforts are centered upon the *assessment of learning*, an indicator of curriculum-centered practice; the practice of assessment for learning is yet to be distinctly visible at institutions of higher education. In most likelihood, these policies have not been successful to direct, create, manage, monitor, and evaluate the processes, procedures and standards of practice of assessment for learning. In addition, despite the policy interventions, not much is known about institutional support for a balanced practice of assessment of and assessment for learning in higher education (Augustine, Cole, & Peterson, 1998; Ellyn, 2000; Peterson & Einarson, 2001). Ellyn (2000) asserts that shared mission and purpose of student assessment, formally adopted assessment policy, governance systems, budget allocation for conference, workshop and training on assessment, and administrative and management support constitute the important aspects of institutional supports. Also strong leadership and professional collegiality among faculty members contribute to institutional support. Thus for an assessment policy to be effective, it is imperative to examine these support-related variables.

In light of the preceding observations, a public-funded institution of higher education in Malaysia has recently devised an approach to develop, manage, monitor, and improve a university-wide policy of student assessment that would account for the needs of its constituencies. A policy paper, "IIUM's Student Assessment Policy" has been endorsed by the university earlier this year. The aim of the present study was to examine the effects of the institutional intervention. Specifically the purposes of the study were to examine (1) the perceptions of the key players of the undergraduate programs toward the assessment policy, (2) the faculty's acceptance of the assessment policy, and (3) the effects of the policy on curriculum and assessment planning.

2. METHOD

The setting of the study was a state-funded university in Malaysia, the International Islamic University Malaysia (IIUM) to address the research objectives. The IIUM was chosen primarily because it is among the first institutions of higher education in the country known to formally embark on policy intervention in student assessment. Identified as the garden of knowledge and virtue, the university is basically a comprehensive teaching institution, with 20,000 undergraduate students and 1,400 teaching staff.

The study sampled two groups of participants. The first sample comprised 31 academic deans and deputy deans, the major players of the undergraduate programs. This group of respondents is categorized as the "program provider," and therefore, their responses were deemed critical in addressing the first objective of the study. The second group of respondents consisted of 123 faculty members of from three faculties, namely the faculty of Science, faculty of Human Sciences and Islamic Revealed Knowledge, and faculty of Information Communication Technology. A set of questionnaire was developed for each group of respondents. The first questionnaire was used to identify the perceptions of the program providers towards the first draft of the IIUM's Student Assessment Policy. The second questionnaire, consisting of 20 Likert scale items aimed at measuring the faculty's acceptance of the policy. To examine the effects of the policy on curriculum and assessment planning, the academic events that took place since the formal establishment of the policy by the senate of the university were recorded and examined.

To arrive at the conclusions, the data were subjected to descriptive quantitative analysis. However, to measure the faculty's acceptance of the assessment policy, the study applied the Rasch measurement model (Andrich, 1988). The extended logistic model of Rasch offers a procedure for creating an interval-scale construct. The model postulates that a collection of items, which measure a psychological construct, can be calibrated and ordered along a continuum of difficulty levels. Similarly, respondents of the study can be calibrated and ordered along a continuum of their ability levels to endorse the items. The measurement model calibrated the two components of item response, item difficulty and person ability, on a common scale. In other words, item difficulty and person ability are estimated according to the probability of the response patterns, given the model. In essence, the Rasch model requires that the data fit the model (Andrich, 1989). The procedure produces several appealing outcomes, which include (1) scale-free student measures, (2) sample-free item difficulties, (3) an interval-scale variable which is measured by a single dominant latent trait, and (4) evidence for construct validity of the measure.

The Rasch measurement model enables the study to validate the argument that the data, i.e. the faculty's responses to the proposed suggestions—statements on student assessment policy—represent a single psychological construct; thus, appropriate inference and assignment of meaning could be made on the scores of the construct. The analysis offers a mathematical framework to evaluate the extent to which the data fit the measurement model. It facilitates the estimation of error, reliability, unidimensionality, and difficulty of the items and the ability of the respondents to endorse them. The data were fitted, using WINSTEPS version 3.48 (Linacre & Wright, 2000), to the Rasch Model for polytomous data.

3. INTERVENTION APPROACH

The university approaches the development of assessment policy and standards through extensive consultation and collaboration (Ellyn, 2000). First a committee, chaired by the Deputy Rector (Academic & Research) developed a position paper proposing for an institutional assessment policy and standards. A draft of the policy and standards was formulated on the basis of the literature, environmental scanning, visits to Australian universities, and documented assessment policies, which were available online. The drafted policy explicitly declares the aims and expectations of the university pertaining to the practice of student assessment. It outlines the assessment principles that should guide the practice, the roles and responsibilities of the internal constituencies including students' rights and responsibilities, and minimum standards of professional practice in high-stakes testing and alternative assessment. In addition, the policy paper spells out the implications of the intervention, which include review of curriculum and assessment training for the faculty.

The policy states the objectives of assessment activities explicitly. It emphasizes the purpose of student assessment in the following manner:

> The primary purpose of assessment at the International Islamic University Malaysia is to attain higher quality in student learning. In this respect, this policy aims to enable a balanced practice of the ***assessment of*** and ***assessment for*** learning in the University. While the assessment of learning offers evidence of student achievement, which is crucial for institutional accountability and public consumption, assessment for learning provides opportunities to provoke students to achieve more (Stiggins, 2002), including the desired generic competencies. In other words, assessment should enable the University to audit and certify that a student has achieved the learning outcomes and academic standards for the grades and qualifications. More importantly, assessment should serve as a powerful tool to enhance teaching and learning. (IIUM, 2006, p.5)

Second a workshop, participated by the academic deans and deputy deans was conducted in order to assess the perceptions, acceptance, needs and expectations, and effects of institutional intervention. Primarily, the workshops were used in making public the drafted assessment policy and standards. The workshop began with small group discussion to self-assess the prevailing instructional practices and to map the assessment tasks against the

documented learning outcomes of courses and programs. Based on the results of the workshop, the policy was revised and formally presented and discussed in the Deans' Council Meeting. The meeting agreed to adopt the policy, and thus the paper was then presented to, and approved by the university's Senate.

4. RESULTS

Perceptions of Program Providers

The results of data analysis are organized into three sections, arranged according to the ordering of the research objectives. Table 1 summarizes the responses of the academic deans and deputy dean who had participated in a workshop in which the first draft of the student assessment policy was proposed. The major aim of the 3-day workshop was to elicit reactions, feedback, comments, and suggestions from the program providers in order to improve the proposed policy.

Table 1

Percentage Distribution of Deans' and Deputy Deans' Perceptions toward the Proposed Student assessment Policy (n = 31)

	SD&D*	NS	A&SA
I am now aware of the assessment practice in my faculty	9.7	9.7	80.6
I am now aware of the strengths of the assessment practice in my faculty	9.7	12.9	77.4
I am now aware of the weaknesses of the assessment practice in my faculty	9.7	6.5	83.9
There is now a need for me to revisit the assessment practice in my faculty	6.5	6.5	87.0
I would like to improve the assessment practice of the course I am teaching	-	-	100.0
There is a need for the new IIUM Assessment Policy	3.2	-	96.8

Note * SD&D – strongly disagree and disagree, NS – not sure; A&SA – Agree and strongly agree

The data showed that key players of the institution, the senior academic management officials of the university perceived the assessment policy favorably. It is interesting to note the distribution of agreement for the last three suggestive items. Clearly more than 80% of the respondents agreed to revisit the assessment practice in his/her faculty (87%), with the formulation of an assessment policy (96.8%), and to improve their own assessment practices (100%). The results speak volume of the management support for the proposed assessment policy, which has been initiated internally and developed collaboratively.

Further analysis yielded somewhat similar patterns of results with respect to the deans' and deputy deans' perceptions toward the workshop. Specifically, at least 80% of the participants agreed that they have "learned a lot about assessment" and "learned a lot from other participants" of the workshop. In addition, more than 90% respondents agree that the workshop have involved the right participants, presented useful information, provided adequate opportunities for active participation, and facilitated by informative and effective paper presenters.

Faculty's Acceptance

The preliminary analysis found that 9 items failed to adequately fit the expectation of the measurement model; thus, only 11 items were applied in the final Rasch analysis. The Rasch analysis found that the item reliability estimate was high. The internal consistency index for items was .90, with a standard error of .15. These results suggest that a similar ordering of person placement is reasonable if similar analysis is conducted on this sample of faculty members using another set of items that measures similar phenomenon. The calibration of the 11 items demonstrated a reasonable fit to the model; items difficulty ranged from .71 to -1.11 logits (SD = .47). The results

supported that the unidimensionality of the scores. The data (Table 2) showed that infit statistics (MNSQ) of the 11 items ranged from .65 to 1.34.

Table 2

Items Statistics of Faculty's Acceptance of Student Assessment Policy

ITEM	MEASURE	ERROR	INFIT MNSQ	INFIT ZSTD	OUTFIT MNSQ	OUTFIT ZSTD	PTMEA CORR.	ITEMS
The AP* is very comprehensive	.71	.12	.94	-.4	.93	-.5	.69	p2q1
The AP has clear purposes	.30	.13	.73	-2.1	.70	-2.5	.75	p2q2
The AP is consistent with the mission and vision of the university	.25	.14	1.08	.6	1.21	1.5	.66	p2q10
The AP will ensure that the quality of assessment is maintained	.19	.13	.65	-2.8	.65	-3.0	.76	p2q3
The AP will ensure that students are fairly assessed	.18	.13	1.29	2.0	1.46	3.1	.60	p2q4
The AP will ensure the quality of IIUM graduates	.17	.14	.88	-.8	.97	-.1	.70	p2q8
The AP will ensure that the assessment practices are standardized	.15	.14	1.29	1.9	1.27	1.9	.67	p2q9
With the AP, I have a clearer guideline on how to assess	-.07	.14	.86	-1.0	.85	-1.1	.71	p2q6
With the AP, I know what my role is in assessing my students	-.19	.14	.88	-.8	.81	-1.4	.73	p2q7
All relevant parties will be responsible for the assessment	-.59	.15	1.31	2.0	1.18	1.2	.66	p2q5
The AP will require me to plan and prepare assessment early I	-1.11	.16	1.34	2.2	1.58	3.0	.51	p2q12
MEAN	.00	.14	1.02	.1	1.06	.2		
S.D.	.47	.01	.24	1.7	.29	2.0		

The results showed that the items p2q1, p2q2, p2q3, and p2q10 were the most difficult items to be endorsed. The respondents were least agreeable to the first three suggestions concerning the the assessment policy. On the other hand, items p2q12, p2q5, and p2q7 were the least difficult items to be endorsed positively by the respondents. Additionally, the item-person map (Figure 1) shows a lack of overlapping between the distribution of items difficulty and person ability; almost all respondents found the positively worded suggestions about the policy agreeable. In a nutshell, the results offer support that the faculty's showed clear acceptance of the policy, given the items.

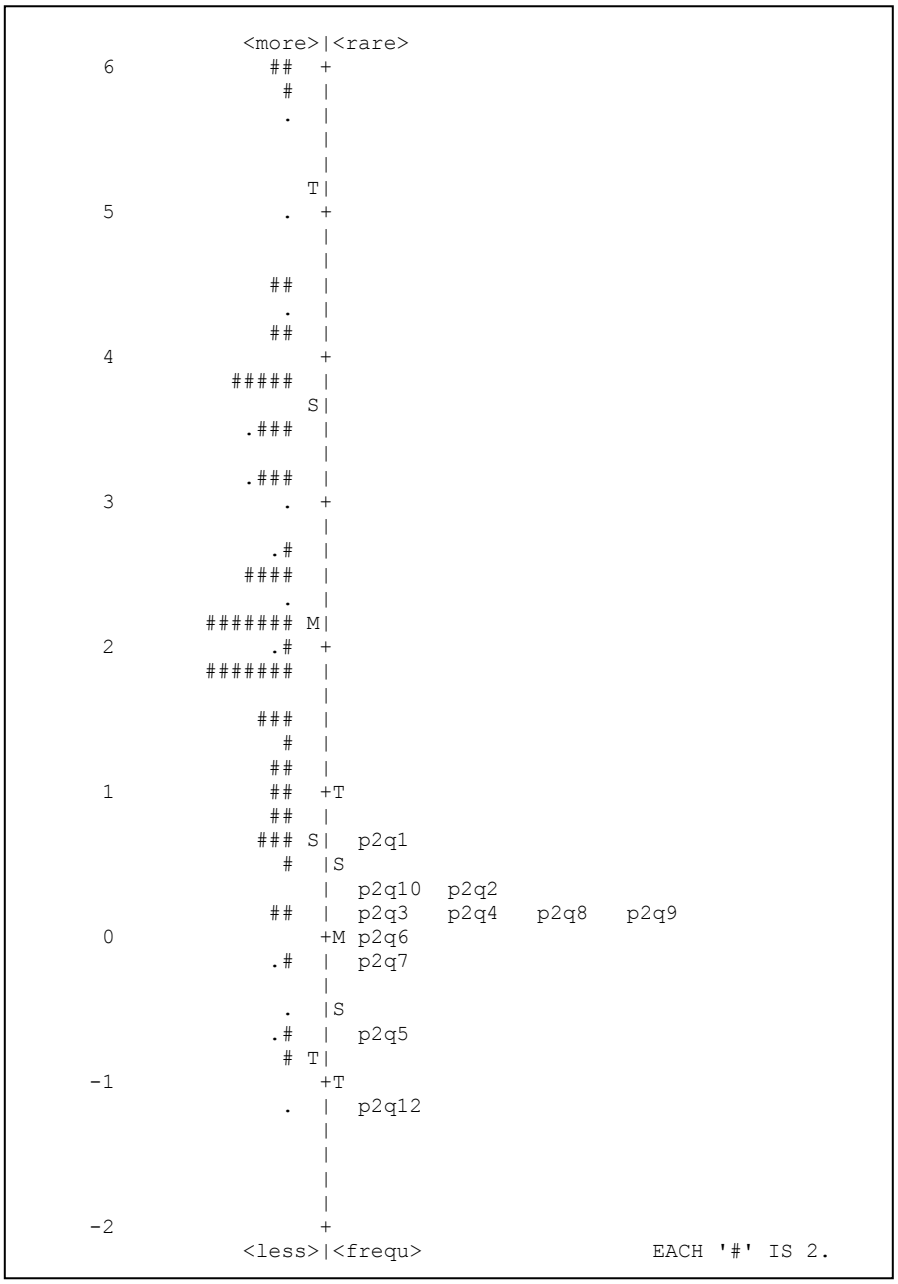

Figure 1
Persons Map of Items

Effects on Curriculum and Assessment Planning

One month after the Senate's approval of the Assessment Policy, the office of the Deputy Rector (Academic & Research) tabled a plan of actions that would fulfill the initial requirements of policy to the Deans' Council. The proposed plan, which implicates financial allocation and leadership commitment of the respective deans, was rigorously reviewed and evaluated during the meeting. As a result of the exercise, the council reached a consensus to adopt a revised plan, which is summarized in Table 3.

Table 3
Development of IIUM's Assessment Policy and Standards: Charting the Path (2006)

	Objective	Key Indicator/Milestone	Activity/Task	Participant	Timeline
1	a. Revisit & refine program LOs b. Construct course Los	a. Program LOs* b. Courses LOs (sample: KOE)	a. 1-Day briefing for facilitators/trainers	10 resource persons	February
			b. IIUM-wide work-shop to write LOs (1 Day) c. IIUM-wide work-shop to vet the LOs (2 Days)	10 Faculty's representatives	Feb-March
2	Be aware and informed of IIUM's Assessment Policy	Faculty survey	One-day Seminar on IIUM Assessment Policy & (Minimum) Standards	150 Faculty's representatives	Early March
3	a. Link assessment to course LOs b. Redistribute course grade c. Draft program's assessment plan	a. Course assessment plan b. Program Assessment	a. 1-Day briefing for facilitators/trainers	10 resource persons	Mid March
			b. IIUM-wide workshop to map assessment tasks c. Program presentation of assessment plan (3 Days Workshop)	Program's representatives	March-Apr.
4	Senate's endorsement of course LOs and assessment plan	Revised Course Outlines (LOs & evaluation methods)	Program-based document for Senate's Approval	-	April/May Senate
5	a. Develop standard of practices for end-of-semester examination b. Develop standard of practices for performance assessment	Documented Faculty- and program-based standards, processes & operating procedures	a. Training of faculty's resource persons	A resource person for each program	May - November
			b. Faculty-based in house training & workshops	All academic staff	
6	Define institutional indicators of Assessment Standards	Key Indicators	IIUM-wide workshop	Faculty's representatives	December 2006

* Learning Outcomes

Subsequently, several curriculum- and assessment-related reports have been recorded from the 11 faculties. As of end of April, the office of the Deputy Rector (Academic and Research) has received reports of the faculty-based activities, as shown in Table 4. The reports indicated that the objectives of the site-based activities were mainly to,

a. review, reconstruct and map program outcomes across the courses,
b. reevaluate the methods and techniques used in the assessment of student learning, and
c. link assessment tasks and learning outcomes across courses, which would serve as the framework in the formulation of an assessment plan/blueprint in each program.

Table 3
Site-Based Activities on Curriculum and Assessment Planning

	Faculty/Institute/Centre	Participants	Duration
1.	Institute of Education	All academic members	1 day
2.	Human Sciences & Revealed Knowledge	All academic members	4 days
3.	Economics and Management	All academic members	1 day
4.	Faculty of Science	All academic members	1 day
5.	Architecture & Environmental Design	HODs; senior lecturers	5 days
6.	Information Communication Technology	All academic members	3 days
7.	Faculty of Law	HODs	1 day
8.	Medical-related Faculties	Deputy Deans	1 day
9.	Centre for Languages	HODs; senior lecturers	1 day

5. CONCLUSION

Its limitations notwithstanding, the study produced several noteworthy findings. First, the institutional intervention in the university-wide assessment is enjoying supports from the major key players, namely the academic deans and deputy deans. Second, the intervention gained faculty's acceptance. Finally, within a time span of four months, a substantial number of academic members of the university have been involved in workshops and briefings related to student assessment. Hence the findings contribute to theory and procedural knowledge in helping students to learn at institution of higher education. It is reasonable to conclude that the encouraging outcomes of the intervention are attributable to the,

1. formulation and development of the policy which have been initiated from within the institution,
2. objectives of the policy that were consistent with the shared vision, mission, and expectations of its constituents,
3. element of university-wide consultative and collaborative efforts,
4. faculty's needs and expectations, including their needs for training and professional development are accounted for, and
5. monitoring of the assessment-related activities across the university.

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