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Self-perceived assessment competencies and practices among university lecturers

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Abstract

Purpose – The purpose of this paper is to analyse the lecturers' self-perceived competencies and practices in assessing students.

Design/methodology/approach – An Assessment Practices Inventory Modified was administered to a sample of 329 randomly selected lecturers from six universities in Uganda. Factor analysis and multivariate analysis of variance (MANOVA) were used to address the research questions.

Findings – The results of factor analysis yielded a factor structure of four variables; design, administration, interpretation, and application. The MANOVA multivariate test results highlighted differences in assessment competencies and practices among lecturers in the different academic levels (Wilks' $\lambda = 0.732$, $F(16, 313) = 5.624$, $p < 0.05$, $\eta^2 = 0.075$), and in the interaction between type of university, specialisations, and academic levels (Roy's largest root $= 0.073$, $F(8, 313) = 2.543$, $p < 0.05$, $\eta^2 = 0.068$). The Tukey HSD *post hoc* test results revealed that lecturers in the specialisation of education were different from their counterparts in other specialisations, in interpreting assessment results. Academic levels differences existed in all the dependent variables (design, administration, interpretation, and application). No differences existed in assessment competencies and practices between lecturers in the different types of universities.

Originality/value – Lecturers have been found to differ in their assessment competencies and practices, according to their specialisations and academic levels. It has been recommended in this study, that, assessment training programmes be made mandatory to all lecturers in universities, in order to bridge the gap their competencies and practices in assessing students.

Keywords Assessment competence and practices, Self-perceived, University lecturers

Paper type Research paper

Introduction

Society has observed an increased gap in the ways lecturers assess students in higher education institutions (HEI), in Uganda. It is perceived that lecturers assess students differently, which has been reflected in their learning, and the grades they attain. The observed differences in the ways lecturers assess students have been associated to their competencies and practices in assessing students. These have also been linked to the increased students' failure rate, poor academic accountability, and divergences in grades awarded to students by the different lecturers (Bloxham and Boyd, 2007; Gibbs, 2006; Ebersole, 2009; Benjamin and Klein, 2006). In HEI in Uganda today, students prefer to take courses offered by particular lecturers in anticipation of getting better grades, than when they would offer the same course with other lecturers. It is perceived by students that highly ranking lecturers such as professors and associate professors award low grades compared to their counterparts at lower ranks.

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Assessment is a process that entails collecting, analysing, and using evidence about students to help them improve their learning, and the teaching process (Remesal, 2011; Li and Hui, 2007; Watering, 2006). In the assessment process teachers interact with students to determine whether the student performance matches with the instructional objectives (Alkharusi, 2011a; Orzolek, 2006; Gronlund, 2006). Assessment is a fundamental structure in the teaching and learning process that offers students with academic justice, categorises institutions, accounts for teaching, and holds schools responsible for the student learning (Li and Hui, 2007; Gronlund, 2006; Black and Wiliam, 1998b; Koh, 2011). With such advantages in assessment, this makes it a requirement for all lecturers in HEI to possess appropriate assessment competencies and practices in assessing students (Alkharusi, 2012; Remesal, 2011; Pilcher, 2001; Stiggins, 2005a, b; Stiggins *et al.*, 2005).

The critical function of assessment in bridging the gap between teaching and learning has made it an area of interest to many educational researchers (Alkharusi, 2008; Zhang and Burry-Stock, 2003). Currently, assessments undertaken on students by lecturers in HEI have greatly ignored the concepts of involving students and the learning environment in the assessment process. The learning environment, cultural, and historical factors have a great role they play in the assessment and learning of students (Gijbel, 2005). Most lecturers in HEI in Uganda have not included students in their assessment, and have become the sole determinants of student learning. Social constructivists like Jean Piaget and Lev Vygotsky believe that the learning process is a social interaction in which learners and their environment should not be ignored (Liu and Mathews, 2005). The approach of involving students and the environment promotes relativism in assessment, which is due to shared views between the lecturer and student in the assessment of learning. Students' participation in assessments tends to reduce the lecturers' subjectivity in the assessment process (Guba and Lincoln, 1994; Au, 1998). Lecturers involving students in assessing themselves does not only help them to think of the assessment, but also, it helps them think deeply about the learning strategies and the environment (Nijhuis *et al.*, 2005).

Self-perceptions of assessment competencies and practices refer to how lecturers evaluate themselves in undertaking assessments (Brookhart, 1997; Alkharusi, 2008). In reviews done in assessment, it has been noted that there exists a relationship between lecturers' perceptions and the scores they award to students (Hoge and Coladarci, 1989; Martinez *et al.*, 2009). The way lecturers perceive themselves in assessing student has been found to play an important role in the improving of student learning and the instructional process (Postareff *et al.*, 2012; Brown and Remesal, 2012; Brown, 2008; Brown and Harris, 2009; Brown *et al.*, 2009, 2011). In other studies done on how lecturers perceive themselves in assessing students, issues of poor assessment practices and lack of adequate competencies in assessing students among academic instructors have been mentioned (Alkharusi, 2012; Zhang and Burry-Stock, 2003; Siegel and Wissehr, 2011; Popham, 2004b).

There are different types of assessments used by lecturers to assess student learning in HEI. The most common types of assessment used by lecturers include; either formative or summative assessments (McDowell *et al.*, 2011; McMillan, 2004), traditional or alternative assessments (Alkharusi, 2008; Brookhart, 1997; Gronlund, 2006), and assessment for or assessment of learning (Stiggins, 2005b; Black and Wiliam, 1998a). In HEI today, there is a general shift from summative to formative assessment (Postareff *et al.*, 2012; Swaffield, 2011; Black and Wiliam, 1998a, b), as well as a shift from assessment of to assessment for learning (Stiggins, 2005b). In formative

assessments, lecturers gather, interpret, and use assessment information to understand how much students have achieved in learning on the pre-determined goals (Black *et al.*, 2004; Shavelson *et al.*, 2008; Alastair, 2008; Ainsworth and Viegut, 2006). Summative assessments are measurements used to detect whether students have attained the required standards of a particular course, or, grade taken. These are used at the end of a learning session to understand whether a student qualifies to earn a certificate, or, not (Li and Hui, 2007; Remesal, 2011; Birenbaum *et al.*, 2006).

Traditional assessments are the most commonly used types of assessments in learning, in HEI in Uganda (Airasian, 2001; Suah and Ong, 2012). Traditional assessments incorporate the old paradigms of assessment which use standardised paper-pencil tests, separate assessments from teaching, and emphasise the behaviouristic approach to assessment (Shepard, 2001). Traditional assessments are taken in forms of essay tests, true-false tests, matching tests, and multiple choices among others (Suah and Ong, 2012; Gronlund, 2006; Zhang and Burry-Stock, 2003). Traditional assessments are known for their being used to sort and rank students according to grades, or, on a continuum, but not to target all students to become competent (Stiggins, 2005b). Alternative assessments are used to offer a provisional substitute to traditional assessments. Alternative assessments are of three types; performance-based assessments, authentic assessments, and constructivist assessments (Dikli, 2003). Lecturers using performance-based assessment take a series of observations on student learning in relation to the standard(s) to be attained. Authentic assessments are assessments which put into context of the "real world", or, the learning environment during the assessment process (Dikli, 2003). Constructivist assessments involve displaying a collection of students' work, monitor their mastery of the skill on the tasks accomplished, and also, students participate in assessing their work. Though traditional assessments are the most commonly used type of assessment in HEI in Uganda, today, there is a deliberate push in favour of alternative assessments in most universities.

Assessment for learning is the type of assessment which allows self-assessment to students, assesses the learning environment and process, encourages deeper understanding, and focuses to knowledge construction rather than memorisation, attaining higher grades, and reproduction of knowledge (Stiggins, 2005b). In HEI, assessment for learning has been opted for as an alternative to the traditional formative assessments. Assessment for learning helps in making instructional decisions, assesses students continuously, informs students about their standards towards an academic goal, and also, motivates students to learn better. This has made assessment for learning an instructional intervention, rather than, a mere monitor to student learning (Stiggins, 2005b). In assessment for learning both the student and the teacher make decisions as a team, in line with the achievement standards, using assessment results (Black and Wiliam, 1998a). Assessment for learning provides students clear learning objectives, provides models of good and bad work, give regular feedback to students, and teaches students to assess themselves. On the other hand, assessment of learning is summative in nature, which is used to sum up a learning process such as a course, programme, or, grade. Summative assessments are conducted mainly using the traditional examinations, or, tests (Stiggins, 2005b).

The activities in an assessment process range from test construction to use of the results obtained from an assessment (Zhang and Burry-Stock, 2003). In previous studies, four major dimensions have been highlighted to comprise of the activities

in the assessment process; designing, administration, interpretation, and using of assessment results. In designing assessments, the lecturers ensure that appropriate items are constructed to meet the instructional objectives (Alkharusi, 2008; Stiggins, 1987; Zhang and Burry-Stock, 2003). Administration is the way in which tests, or, exams are given to the students. This would depend on the way the assessments are designed, or, going to be interpreted (Peterson *et al.*, 1999). Interpretation involves scoring and grading of the assessments (Zhang and Burry-Stock, 2003), recording of the results (Stiggins and Bridgeford, 1985), and obtaining diagnostic information from the assessments (Zhang and Burry-Stock, 2003). Proper scoring and grading of students in universities take a criterion approach, with lecturers communicating the grading procedures to the students prior to the assessment (Close, 2009; Brown, 2004; Postareff *et al.*, 2012). Moderation of the examinations and decision made on the student learning are done during the interpretation stage, with an aim of offering students with academic justice (Stiggins *et al.*, 1989; Biggs, 1996). Using of assessment results involves lecturers implementing learning decisions based on the interpreted results and item analysis to improve on the student learning (Zhang and Burry-Stock, 2003; Gregory, 1996).

Assessment competencies and practices among lecturers take an influential position in determining student learning, which signifies the need for their attention (Zhang and Burry-Stock, 2003; Schafer, 1991; Stiggins, 1992, 1997). Lecturers' use of specific assessment methods might require them specific competencies to execute them. But according to studies done in assessment, lecturers have been mentioned to have inadequate competencies in most of the current methods used in assessing student learning (Stiggins, 1988; Plake, 1993; Zhang and Burry-Stock, 2003; Popham, 2004b; Nolen *et al.*, 1992; Pope *et al.*, 2009). In some studies, it has been clearly stipulated that lecturers do not assess students adequately, and need to improve their assessments skills (Zhang and Burry-Stock, 2003; Popham, 2004b; Pope *et al.*, 2009; Schafer, 1991; Stiggins, 1992, 1997). With such issues raised this spelt out the need of analysing the self-perceived competencies and practices among lecturers in universities.

Purpose

The purpose of this study was to analyse how lecturers perceived themselves in terms of assessment competencies and practices. In analysing the self-perceived assessment competencies and practices among lecturers, the study sought to analyse the lecturers' differences in assessment competencies and practices according to the type of university, specialisations and academic levels. This was to find out whether the lecturers differed in their assessment competencies and practices on the dependent variables. This study was conducted in universities to further understand the lecturers' assessment competencies and practices as most of the previous researches were done in primary and secondary schools (McMillan and Nash, 2000; Remesal, 2011; Leighton *et al.*, 2010; Duncan and Noonan, 2007; McMillan *et al.*, 2002; Black and Wiliam, 2009; Stiggins, 1988; Harlen, 2005; Liu, 2008).

Research questions

This study was guided by the following research questions:

RQ1. What are the factors that influence assessment competencies and practices among lecturers in universities?

RQ2. Are there differences between assessment competencies and practices among lecturers according to their academic levels, type of university and specialisations on the Assessment Practices Inventory Modified (APIM) sub-scales score?

Methodology

Instrument

The 50-item APIM scale was used to collect data for this study. The APIM was developed in a combination of items from the Assessment Practices Inventory Revised (Burry-Stock and Frazier, 2008), items from Assessment Practices Inventory (Zhang and Burry-Stock, 1994), and items from the literature of the Inventory of Institutional Support for Student Assessment (Peterson, 1997). The university lecturers were requested to respond to the items in the APIM, on how they perceived themselves in terms of assessment competencies and practices. The items in the APIM were measured on a five-point likert scale which ranges from not at all skilled to highly skilled (1 = not at all skilled, 2 = a little skilled, 3 = some what skilled, 4 = skilled, 5 = highly skilled). Content validation of the APIM scale was done by six professors in the area of assessment, and they ascertained that the items in APIM were adequate to measure the lecturers' assessment competencies and practices. The content validity of the APIM was supported by the computed Cronbach's α reliability (0.92), suggesting a very good internal consistency in terms of reliability with the sample (George and Mallery, 2010; Pallant, 2007).

Sample and sampling procedure

A total of 329 questionnaires were administered to a sample of randomly selected lecturers from six universities (private and public) in Uganda, while considering their specialisations and academic levels. A total of 321 questionnaires were returned fully filled, and were used for data analysis. The lecturers who participated in this study were selected from both public ($n = 146$, 45.5 per cent) and private ($n = 175$, 54.5 per cent) universities, and were from the faculties of arts ($n = 101$, 31.4 per cent), human sciences ($n = 95$, 29.6 per cent), sciences ($n = 95$, 29.6 per cent), and education ($n = 30$, 9.4 per cent). The lecturers who were selected to participate in the study were in the categories of teaching assistants ($n = 38$, 11.8 per cent), assistant lecturers ($n = 110$, 34.3 per cent), lecturers ($n = 142$, 44.2 per cent), associate professors ($n = 21$, 6.5 per cent), and professors ($n = 10$, 3.1 per cent). All the questionnaires were distributed and collected from the lecturers by hand, in their respective universities, faculties, or, departments. The distribution of the questionnaires was done after the lecturers had consented to freely participate in the study.

Data analysis and results

To generate sub-constructs of the best simple structure of assessment competencies and practices among lecturers, factor analysis was conducted. The results of principle component analysis using varimax rotation generated four factors; design, interpretation, application, and administration (see Table I). The Kaiser-Meyer-Olkin measure of adequacy yielded was 0.894, and the Bartlett test of sphericity was statistically significant ($\chi^2 = 7{,}744.492$, $p = 0.000$). From the results of factor analysis, the variance explained was 52.806 per cent, which means that the factors in the model contribute 52.806 per cent to the lecturers' assessment competencies and practices.

The differences in lecturers' assessment competencies and practices were tested using the multivariate analysis of variance (MANOVA) according to the lecturers' academic levels, type of university and specialisations. Before conducting MANOVA,

Design		Interpretation		Application		Administration	
Items	Loadings	Items	Loadings	Items	Loadings	Items	Loadings
Q20	0.762	Q43	0.766	Q8	0.759	Q41	0.762
Q34	0.755	Q21	0.744	Q10	0.740	Q31	0.758
Q32	0.753	Q26	0.743	Q12	0.729	Q19	0.738
Q6	0.750	Q47	0.738	Q4	0.704	Q18	0.722
Q7	0.740	Q27	0.712	Q30	0.701	Q44	0.662
Q38	0.727	Q5	0.700	Q39	0.695	Q42	0.654
Q35	0.725	Q45	0.689	Q11	0.652	Q25	0.631
Q37	0.719	Q13	0.648	Q48	0.645	Q22	0.621
Q36	0.708	Q16	0.607	Q40	0.574	Q14	0.531
Q33	0.674	Q46	0.590	Q49	0.523	Q15	0.496
Q24	0.631	Q3	0.432	Q50	0.482	Q28	0.483
Q29	0.614	Q2	0.192	–	–	Q9	0.446
Q17	0.576	–	–	–	–	Q1	0.274
Q23	0.459	–	–	–	–	–	–

Table I.
Factors of assessment competencies and practices

Notes: Q, item. Extraction method: principal component analysis; rotation method: varimax with Kaiser normalization

the requirements of the assumptions of normality, linearity, outliers, multicollinearity, and homogeneity of covariance were met. From the multivariate test results of the three independent variables (academic levels, type of university, and specialisation) and four dependent variables (design, interpretation, application, and administration) significant differences in lecturers' assessment competencies and practices were revealed in academic levels (Wilks' $\lambda = 0.732$, $F(16, 313) = 5.624$, $p < 0.05$, $\eta^2 = 0.075$). A significant difference was also noted in the interaction between type of university, specialisations and academic levels (Roy's largest root = 0.073, $F(8, 313) = 2.543$, $p < 0.05$, $\eta^2 = 0.068$) of the lecturers.

The MANOVA results of the tests between subjects effect highlighted statistically significant differences in assessment competencies and practices in the lecturers' academic levels according to design ($F(4, 313) = 5.400$, $p < 0.05$, $\eta^2 = 0.072$), administration ($F(4, 313) = 3.212$, $p < 0.05$, $\eta^2 = 0.044$), interpretation ($F(4, 313) = 12.162$, $p < 0.05$, $\eta^2 = 0.149$), and application ($F(4, 313) = 3.512$, $p < 0.05$, $\eta^2 = 0.048$) of assessment results (Table II). This indicates that the effect of academic levels on lecturers' competencies and practices in assessment design, administration, interpretation, and application is different between the teaching assistants, assistant lecturers, lecturers, associate professors, and professors in universities.

In comparison of the independent variables, the Tukey HSD *post hoc* test results of specialisations revealed that there were statistically significant differences in

Variable(s)	DV	F	df	MnSq	Sig.	η^2
Academic levels	Design	5.400	4	2.016	0.000*	0.072
	Administration	3.212	4	0.982	0.013*	0.044
	Interpretation	12.162	4	3.673	0.000*	0.149
	Application	3.512	4	1.174	0.008*	0.048

Table II.
MANOVA tests of between-subjects effect

Notes: DV, dependent variable; MnSq, mean square; η^2, partial eta squared. *$p < 0.05$

assessment competencies and practices in the interpretation of assessment results by lecturers from the specialisation of education and other specialisations; education and arts ($p = 0.000$; $p < 0.05$), education and human sciences ($p = 0.000$; $p < 0.05$), and education and sciences ($p = 0.000$; $p < 0.05$) (see Table III). This is supported by the descriptive results which also highlight that lecturers in the specialisation of education ($M = 3.85$, SD = 0.490) have higher mean scores in the interpretation of assessments than their counterparts in arts ($M = 3.38$, SD = 0.611), human sciences ($M = 3.38$, SD = 0.604), and science ($M = 3.30$, SD = 0.509). The observed differences in assessment competencies and practices in specialisations might be due to the different training exposed to by the different lecturers during their university training, or, as part of their capacity building programmes. Braney (2010) mentioned that teachers in the different specialisations differed in their assessment practices. Lecturers in education acquire pedagogical skills during their university, or, college training, which comprise of assessment skills (Mertler, 2003; Steadman, 1998). These would also make them different in assessing students than their counterparts in other specialisations.

The *post hoc* test results in Table IV highlight statistically significant differences in assessment competencies and practices in academic levels and design between associate professors and teaching assistants ($p = 0.006$; $p < 0.05$), associate professors and assistant lecturers ($p = 0.004$; $p < 0.05$), and associate professors and lecturers ($p = 0.026$; $p < 0.05$). It is also noted that there exists significant assessment competencies and practices differences in academic levels and assessment design between professors and teaching assistants ($p = 0.002$; $p < 0.05$), professors and assistant lecturers ($p = 0.001$; $p < 0.05$), and professors and lectures ($p = 0.002$; $p < 0.05$) (see Table IV). There existed no assessment competencies and practices differences in assessment design between associate professors and professors. The descriptive results of assessment design in academic levels highlight that associate professors ($M = 3.83$, SD = 0.660) and professors ($M = 4.32$, SD = 0.322) reported higher levels of assessment competencies and practices in assessment design than the teaching assistants ($M = 3.25$, SD = 0.550), assistant lectures ($M = 3.16$, SD = 0.588), and lecturers ($M = 3.32$, SD = 0.636).

From the *post hoc* test results of administration, in academic levels, it is shown that associate professors differ in competencies and practices in the administration of assessments with teaching assistants ($p = 0.013$; $p < 0.05$) and assistant lecturers ($p = 0.010$; $p < 0.05$) (see Table IV). The mean scores for administration in academic levels also show that associate professors ($M = 3.80$, SD = 0.517) have higher competencies and practices in administering assessments than teaching assistants ($M = 3.22$, SD = 0.505) and assistant lectures ($M = 3.27$, SD = 0.572).

DV	Equal variances assumed	Comparisons		SE	Sig.	95% confidence interval Lower bound	Upper bound
Interpretation	Tukey HSD	Education	Arts	0.11466	0.000*	0.1944	0.7871
		Education	Human sciences	0.11538	0.000*	0.1764	0.7728
		Education	Science	0.11554	0.000*	0.2666	0.8638

Notes: DV, dependent variables. *$p < 0.05$

Table III.
Multiple comparisons of interpretation in specialisations

DV	Equal variances assumed	Comparisons		SE	Sig.	95% confidence interval Lower bound	Upper bound
Design	Tukey HSD	Assoc Prof	T. Assistants	0.19103	0.006*	0.0230	1.0721
		Assoc Prof	A. Lecturer	0.17385	0.004*	0.1362	1.0910
		Assoc Prof	Lecturer	0.17070	0.026*	0.0387	0.9762
		Professors	T. Assistants	0.29068	0.002*	0.2759	1.8722
		Professors	A. Lecturer	0.27969	0.001*	0.3722	1.9081
		Professors	Lecturer	0.27774	0.002*	0.2713	1.7966
Administration	Tukey HSD	Assoc Prof	T. Assistants	0.17286	0.013*	0.0797	1.0290
		Assoc Prof	A. Lecturer	0.15732	0.010*	0.0832	0.9471
Interpretation	Tukey HSD	Assoc Prof	T. Assistants	0.17181	0.000*	0.8235	1.7670
		Assoc Prof	A. Lecturers	0.15635	0.000*	0.8079	1.6666
		Assoc Prof	Lecturers	0.15353	0.000*	0.7708	1.6140
		Professors	T. Assistants	0.26143	0.022*	0.0736	1.5092
		Professors	A. Lecturers	0.25154	0.031*	0.0426	1.4240
		Professors	Lecturers	0.24979	0.049*	0.0026	1.3744
Application	Tukey HSD	Assoc Prof	T. Assistants	0.18077	0.007*	0.1209	1.1136
		Assoc Prof	A. Lecturer	0.16451	0.002*	0.1569	1.0604
		Assoc Prof	Lecturer	0.16154	0.035*	0.0206	0.9077
		Professors	T. Assistants	0.27507	0.018*	0.0983	1.6089
		Professors	A. Lecturer	0.26467	0.014*	0.1183	1.5718
		Professors	Lecturer	0.26283	0.048*	0.1293	1.4222

Table IV.
Multiple comparisons of design, administration, interpretation, and application in academic levels

Notes: DV, dependent variable; T. Assistants, teaching assistants; A. Lecturers, assistant lecturers; Assoc Prof, associate professor. *$p < 0.05$

In Table IV, the Tukey HSD *post hoc* test results of interpretation of assessments in academic levels highlight that there are assessment competencies and practices differences between associate professors and teaching assistants ($p = 0.000$; $p < 0.05$), associate professors and assistant lecturers ($p = 0.000$; $p < 0.05$), and associate professors and lecturers ($p = 0.000$; $p < 0.05$). Differences in assessment competencies and practices are also noted in interpretation of assessment results in academic levels between professors and teaching assistants ($p = 0.022$; $p < 0.05$), professors and assistant lecturers ($p = 0.031$; $p < 0.05$), and professors and lecturers ($p = 0.049$; $p < 0.05$), as in Table IV. According to MANOVA results, associate professors and professors do not differ in assessment competencies and practices of interpreting assessment results. The descriptive results in interpretation of assessment results according to academic levels show that associate professors ($M = 4.58$, SD = 0.497) and professors ($M = 4.05$, SD = 0.272) have higher levels of assessment competencies and practices in the interpretation of assessments than teaching assistants ($M = 3.22$, SD = 0.541), assistant lecturers ($M = 3.32$, SD = 0.542), and lecturers ($M = 3.38$, SD = 0.552).

The Tukey HSD *post hoc* test results of applying assessment results in Table IV, again show statistically significant assessment competencies and practices differences in academic levels between associate professors and teaching assistant ($p = 0.007$; $p < 0.05$), associate professors and assistant lecturers ($p = 0.002$; $p < 0.05$), and associate professors and lecturers ($p = 0.035$; $p < 0.05$). Differences in assessment competencies and practices in applying assessment results were also highlighted between professors

and teaching assistants ($p = 0.018$; $p < 0.05$), professors and assistant lecturers ($p = 0.014$; $p < 0.05$), and professors and lectures ($p = 0.048$; $p < 0.05$) (see Table IV). Again from the MANOVA results, associate professors and professors do not significantly differ in competencies and practices of applying assessment results. The descriptive mean scores further show that associate professors ($M = 3.76$, SD = 0.442) and professors ($M = 3.98$, SD = 0.111) differ in competencies and practices of applying assessment results with teaching assistants ($M = 3.08$, SD = 0.598), assistant lecturers ($M = 3.13$, SD = 0.587), and lecturers ($M = 3.27$, SD = 0.566).

In all the differences noted in assessment competencies and practices in academic levels, lecturers of higher academic levels have been found to have higher scores in assessment competencies and practices than those from the lower academic levels. In this research, professors and associate professors are different in assessing students compared to their counterparts of lower academic levels. This is because lecturers at higher academic levels are usually more experienced than those at lower academic levels. In similar studies, it was revealed that teachers' competencies and practices in use of assessment were related to their experience (Mertler, 1998; Bol *et al.*, 1998; Braney, 2010). Also, lecturers of higher academic levels might have been exposed to more training in student assessment through their academic career, which might have made them different in assessing students than their counterparts.

In follow-up of the MANOVA results using the univariate analysis of variance statistically significant differences were noted in assessment design and academic levels ($F(4, 277) = 5.400$, $p < 0.001$, $\eta^2 = 0.072$), administration and academic levels ($F(4, 277) = 3.212$, $p < 0.05$, $\eta^2 = 0.044$), interpretation and academic levels ($F(4, 277) = 12.162$, $p < 0.001$, $\eta^2 = 0.149$), and application and academic levels ($F(4, 277) = 3.512$, $p < 0.01$, $\eta^2 = 0.048$), as in Table V. This affirms that the differences that exist between the independent variable (academic levels) on the dependent variables (design, administration, interpretation, and application) really exist. Though differences exist between the variables, participants rated the competencies and practices in interpretation of assessment results among lecturers higher in importance ($\eta^2 = 0.149$), than any other variable in the model (see Table V).

From the results of the observed power in Table V, it is highlighted that the probability the results would be significant in a sample drawn from a similar population of lecturers is 97.3 per cent for design, 82.5 per cent for administration, 100 per cent for interpretation, and 86.1 per cent for application of assessment results.

Dependent variable	Independent variable	Sum of squares	df	MnSq	F	Sig.	η^2	Power
Design	Academic level	8.064	4	2.016	5.400	0.000***	0.072	0.973
	Error	103.416	277	0.373				
Administration	Academic level	3.927	4	0.982	3.212	0.013*	0.044	0.825
	Error	84.683	277	0.306				
Interpretation	Academic level	14.691	4	3.673	12.162	0.000***	0.149	1
		83.651	277	0.302				
Application	Academic level	4.497	4	1.174	3.512	0.008**	0.048	0.861
		92.608	277	0.334				

Notes: MnSq, mean square; η^2, partial eta squared; df, degrees of freedom. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$

Table V.
Univariate tests of between-subjects effects

This reflects that the results of this study would be used to explain similar situations, with a relatively similar sample.

Discussion and conclusion

Different studies have highlighted assessment competencies and practices among lecturers as some of the essential elements in controlling quality in the teaching, and learning of students in HEI (Alkharusi, 2012; Brown, 2004; Li and Hui, 2007). Assessments in students learning are used to make critical decisions which have both academic and social consequences on the students learning (Zhang and Burry-Stock, 2003; Popham, 1997, 2004b). This has made assessments important in learning, and would require for lecturers to undertake appropriate assessments on student learning (Stiggins *et al.*, 1989; Popham, 2004a, b; Carey, 1994). The learning outcomes determined by the lecturers are great determinants of the students' destiny as far as their education is concerned (Ames, 1992; Harlen and Crick, 2003; Alkharusi, 2008). The differences discovered in lecturers' assessment competencies and practices in the specialisation of education with other specialisations were expected. Lecturers in the specialisation of education take assessment, or, school-testing courses during their undergraduate programmes. These offer them an advantage of interpreting assessments better than lecturers in other specialisations. These results are also supported by findings of the studies which it is highlighted that academic instructors may differ in assessment practices according to discipline (Alkharusi, 2011a; Postareff *et al.*, 2012). This leads a recommendation, that, discipline-related methods of assessment should be given to lecturers in the different specialisations in order to bridge the gap in their assessment competencies and practices between the lecturers of the different specialisations (Postareff *et al.*, 2012; McCune and Hounsell, 2005; Meirink *et al.*, 2007).

The revealed differences in assessment competencies and practices in the lecturers' academic levels show that the higher the academic levels, or, the experience, the better in assessing of students. This might have been due to the experience, or, the assessment courses, undertaken by the lecturers of higher academic levels compared to their counterparts at lower academic levels during their academic career. In different studies, it has been highlighted that there are inconsistencies in the instructors' assessments competencies and practices at various levels of education (Alkharusi, 2011a, 2012; Mertler, 1998; Koh, 2011). Other studies have revealed that lecturers' improvement in assessment competencies and practices is a gradual process, which is associated with time, or, experience (Postareff *et al.*, 2007, 2008, 2012). In this study, it has been found that professors and associate professors who have longer teaching experience have better assessment practices than teaching assistants, assistant lecturers, and lecturers who have slightly lower teaching experience. Differences highlighted in assessment competencies and practices in this study do not mean good or bad assessment practices but highlight lecturers' differences in competencies and practices in assessing students.

From the descriptive statistics, majority of the lecturers are in the lower academic levels, which would also be the same at the university level. It is recommended that training programmes in assessment skills enhancement be conducted to lecturers of lower academic levels, to improve their competencies and practices in assessing students. To this, also previous studies have revealed that lecturers who received assessment training were more competent in assessing students than those who had not (Alkharusi, 2011a, b, 2012; Zhang and Burry-Stock, 2003; Postareff *et al.*, 2008, 2012). The training programmes provided to the lecturers should focus on improving

their assessment competencies, and learning of the student (Popham, 2006, 2009; Wolfe *et al.*, 2007; Lyon, 2011). Training based on how lecturers would use assessment for learning would be given a priority, because, it has been highlighted that very few academic instructors' have had an opportunity to develop their skills in using assessment for learning (Stiggins, 2005b).

It can be concluded that, it is indeed of personal and institutional importance that lecturers who undertake assessments on students have similar and adequate assessment competencies and practices in assessing students, more so in assessment for learning (Postareff *et al.*, 2012; Zhang and Burry-Stock, 2003; Suah and Ong, 2012; Ainsworth and Viegut, 2006). Also, through training, lecturers would be helped to change their assessment mode from the traditional type of assessment to the diverse constructivists' approaches which involve students and the learning environment the assessment process (Au, 1998). All these issues attended to, this would improve the lecturers' assessment competencies and practices, and also, focus universities assessment programmes to adopt more assessment for learning, than, assessment of learning.

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