

## ANALYSIS OF ASSESSMENT STANDARDS IN BUSINESS STUDIES: A CASE STUDY OF YANBU INDUSTRIAL COLLEGE IN THE KINGDOM OF SAUDI ARABIA

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### ABSTRACT

*The Study analyzes the assessment systems practiced in the business studies in Yanbu Industrial College, based on the fundamental principles of assessment. It is based on a primary survey conducted among all the teaching staff of IMT Department during May 2013 using a structured questionnaire. The study reveals the need for improvement specifically the revitalization of reliability and inclusiveness in assessment along with academic integrity and authenticity. Teachers' designation-wise response on assessment divulge that reliability and inclusiveness standards are comparatively neglected elements among instructors; whereas for Asst. Professors, academic integrity was reported to be a weak element in their assessment. Analysis of the influence of experience factor on assessment disclosed that young teachers are comparatively feeble in adopting inclusiveness and authenticity in their assessments. Teaching work load did not have much impact on the eminence of assessment, except reliability and inclusiveness as set standards. The study also highlights the significance of constructive alignment between learning outcomes, learning activities and assessment.*

**Keywords:** Assessment methods, Constructive alignment, Industrial Management Technology department, Principles of assessment, Summative assessment, teaching experience, teaching load

### INTRODUCTION

Assessment is one of the most important elements of teaching-learning process; the educational, emotional, and formative ramifications of judging students' work can weigh heavily on the mind of a teacher. There are differences of opinion among the educationists, researchers and policy makers on the meaning of assessment and its purposes. Even students often perceived it as a means of competing with classmates for the higher grade instead of treating assessment as a stepping stone on the journey to higher level of knowledge and understanding (Guskey, T. R. 2005). The higher education sector in the modern day is directed by outcomes-based education and criteria-referenced assessment, with associated requirements to make curriculum objectives and assessment criteria explicit to students.

Assessment refers to all those activities undertaken by teachers—and by their students in assessing themselves—that provide information to be used as feedback to modify teaching and learning activities. There are different modes of assessment having different purposes, which ranged from diagnosing learning, to identify remediation, or to determine achievement of targeted goals in courses. However, no single assessment serves all of these purposes; summative assessments are designed to provide information on the performance of students, where as formative assessments give feedback on the instructions required for students to master the learning objectives. Different forms of assessment have got different objectives and accordingly it operates at different levels as well.

Summative assessment is the attempt to summarize student learning at some point in time, say at the end of a course. Most standardized tests are summative, but formative assessment occurs when teachers feed information back to students in ways that enable the student to learn better, or when students can engage in a similar, self-reflective process. Sound assessment requires clarity in purpose, targets, methods, sample of the targets, and also elimination of bias and distortion in measurement (Stiggins, 2004).

The transformation from teachers as passive deliverers of curriculum to makers and users of assessment data reflects the shift from teacher as assembly line worker to lifetime learner. Teachers find themselves transforming their teaching as ongoing assessment reveals how students approach tasks, what helps them learn most effectively, and what strategies support their learning. The more teachers understand about what students know and how they think, the more capacity they leave to reform their pedagogy, and the more opportunities they create for student success. Authentic assessments require students to be effective performers with acquired knowledge.

Yanbu Industrial College (YIC), an affiliate of the Royal Commission for Jubail and Yanbu was established in 1989 to provide Saudi nationals with the technical, scientific and academic skills required by the industrial and other economic sectors it serves. The Industrial Management Technology (IMT) Department, which was established in 1996 is offering business studies education in YIC, at Associate Degree level along with Baccalaureate programs in management (Since 2005) and accredited by the ACBSP.

The Study is intended to analyze the assessment practices in the IMT Department, based on the fundamental principles of assessment as highlighted by Race (2010). The specific objectives of the study are the following.

1. To analyze the standard of assessment practices in IMT Department;
2. To evaluate the designation-wise variation in the assessment standards, if any;
3. To assess the implications of teaching experience on the assessment standards; and
4. To examine the effect of teaching load on the assessment practices.

The study is based on a primary survey conducted among all the teaching staff of IMT Department during May 2013 using a structured questionnaire. The questionnaire was designed to embrace the ramification of fundamental principles of assessment practiced in different modes of assessment exists in YIC.

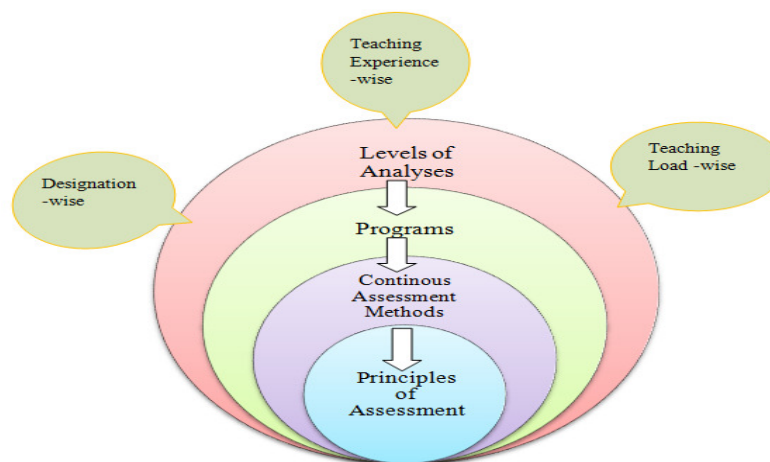


Figure 1. Method of Study

The structured questionnaire used in the study is based on Figure: 1. Application of nine fundamental principles of assessment (Race, 2010) are reviewed in the survey across all summative/formative assessment methods. Five point Likert scale was used to report the opinion of teaching staff on the set assessment standards (principles). The implication of variance among different designations, teaching experience and teachers' work load on assessment are analyzed in the study. Correlation analysis is also used to assess the interrelations among the designed standards of assessment.

The study composed of six sections including the introduction, which discusses the objective and methodology of the study. Important studies in the area of assessment are reviewed in section two and the existing assessment practices in YIC are discussed in section three. Evaluation model used in the study to appraise the assessment systems followed by analyses results are presented in the next two sections. The final section concludes the important findings and offer suggestions for improvement in the existing practices of assessment.

## REVIEW OF LITERATURE

In the field of assessment at the higher education, there are a number of studies that confirm the central role played by assessment in academics. Different forms of assessment would affect the students in their studies and career in different ways. Black and William (1998) illustrate that classroom formative assessment is a powerful means to improve student learning; however, summative assessments such as standardized exams can have multiple effects. It means strengthening formative assessment can raise overall student achievement, especially of slow learners or low-achieving students.

Stiggins (2004) advocate the need for using assessment *of* learning along with assessment *for* learning. That is, teachers should use assessment not only to actively and continuously measure a learner's progress but also to acquire useful data to inform their own instructional practice. He even envisions environments in which students use assessments to understand what success looks like and how to do better next time.

Lewis (2011) study suggests that awareness training can result in significant attitude changes while, impairment simulations have a moderate effect on student attitudes. Ramsden (2003) begins his discussion of the effects of assessment on learning with 'hidden curriculum' to support the primacy of assessment in students' perceptions. Bloxham and Boyd (2007) support their contention that the assessment strategy of a particular course has a major impact on student activity.

The study of Joughin (2006) using a Chinese version of the Assessment Experience Questionnaire found that assessment allowed students to be selective in what they studied or required them to cover the entire syllabus. The study of Nightingale (1996) supports the impact of assessment on students' approaches to learning. Many studies also support the same contention that the quickest way to change student learning is to change the assessment system (For instance, Elton and Laurillard's, 1979; Tang, 1994). There are even proven records that inappropriate assessment procedures encourage surface approaches, yet varying the assessment questions may not be enough to fully evoke deep approaches to learning (Struyven, Dochy, and Janssens 2005).

Popham (2006) points out the need for careful analysis of the sub-skills and knowledge within those standards that students are supposed to master. Thomas Guskey (2005) points out that diagnostic and prescriptive feedback helps in reinforcing what students are expected to learn, identifies what was learned, and describes what needs to be learned. Class room assessment techniques will help to develop self-assessment and learning management skills,

promote critical thinking, and reduce isolation feeling among students (Thomas, A, et.al.1993).

On discussing the relationship between curriculum and assessment it is commonly argued that assessment should be aligned to curriculum or, alternatively, they should be matching each other. The nature and quality of the learning outcomes are central to learning and for the assessment of these outcomes it is required to articulate in some way the constructs on which such judgments are based (Race, 2010). For the assessment of outcomes the inferences drawn from the evidence of learning should be demonstrably aligned to the learning outcomes.

Progression is of key concern in the design and implementation of learning programmes, and in particular for the implementation of assessment for learning. However, its relevance to summative assessment depends on the structure of the assessment system<sup>1</sup>. Wilson and Black (2007) draw attention to the phenomenon that a more tightly prescribed curriculum might be more helpful to learners; if the sequence of progression is well founded in relation to models of learning in each subject discipline, and then there could be better synergy between assessment and effective pedagogy.

These studies point to the relevance of assessment procedures on the alignment between intended outcomes of learning and those outcomes which actually emerge. Lack of alignment between assessment instruments and intended learning outcomes represent a threat to the reliability of inferences from assessment results. Frederiksen and Collins (1989) pointed out that a coherent assessment is one that induces in the education system curricular and instructional changes which foster the development of the cognitive skills that the assessment is designed to measure. Sometimes, an assessment is designed to assess certain intended learning outcomes, but fails to assess them in practice. A different type of impact attributable to the design of an assessment instrument occurs when success of the assessment can be optimized by the acquisition of undesirable, construct-irrelevant learning outcomes. The most obvious of undesirable learning outcomes is cheating behavior.

Herman and Haertel (2005) through their study highlighted that the main policy driver of assessment at the higher education level is system accountability. Accountability takes very different forms, has different purposes and stakeholders, and has different effects on the interpretation of learning outcomes.

## **ASSESSMENT PRACTICES IN YIC**

The assessment practices exist in the higher education sector in Saudi Arabia is a continuous one and follows the credit and semester system. In YIC the prevailing assessment systems comprises both formative and summative assessments, which are continuous as well. The business studies in the IMT department also follow the continuous assessment patterns for its Associate degree and Baccalaureate programs. All these programs are accredited by the ACBSP.

All courses offered from the department are instructed to have the following modes of assessment on a continuous basis (See Figure: 2).

1. Quizzes: Minimum five quizzes are to be conducted having equal marks with total weightage of 15% of the aggregate marks; of which two quizzes are to be conducted before the mid semester.
2. Assignments: Two assignments are to be given of equal marks with total weights of 10%; one assignment before the mid semester.

3. Presentations: It is required only for research based courses in place of quizzes and assignments (not always applicable to theoretical courses).
4. Lab Examination: The technical courses, for which computer based labs are used and its weights are in correspondence to the mid and final exams.
5. Mid Semester Exams: There will be a mid semester exam covering half of the course in the middle of the semester, as announced by the department and its weight should not exceed 25% of the total marks.
6. Final Examination: The final examination will cover entire syllabus having a weightage of 50%.

Among these six assessment methods, except the final examination, all others are summative as well as formative and will give sound feedback to students to improve their learning. The Head of the Department through the department examination committee with the support of Course Coordinators and Program coordinators will monitor the progress of assessment throughout the semester. The Education Development Centre (EDC) of YIC is offering different training programs for maintaining the standard of teaching learning process in YIC for the last two years in liaison with the Christchurch Polytechnic Institute of Technology (CPIT), New Zealand. In a series of training programs, such as Teaching – Learning Methods, Assessment Drives Learning, and Design for Effective Learning, EDC has trained the staff in redesigning the assessment practices to the advanced levels.

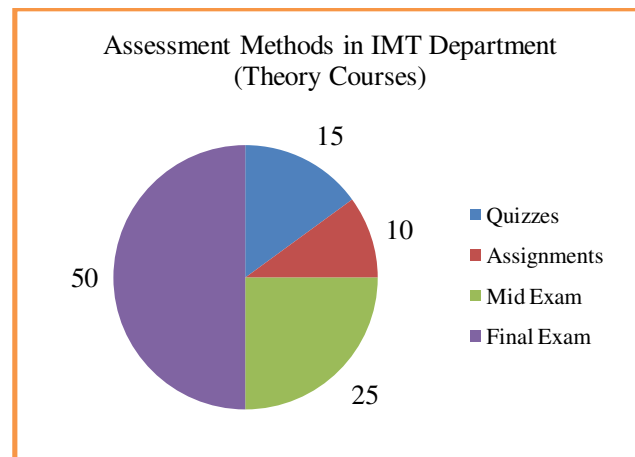


Figure 2. Assessment Methods in IMT Department (Theory Courses)  
Source: IMT Department (2013)

## EVALUATION MODEL OF ASSESSMENT

The evaluation model designed to analyze the assessment pattern in higher education should set standards towards which to assess the prevailing systems of assessment. The model used in this study is as shown in Figure 3. The standards of assessment are set through the fundamental principles of assessment as advocated by Race (2010), and are briefed below. These nine core principles of assessment would cover almost all the basic requirements of a sound assessment system.

1. Validity: Assessment should demonstrably measure that which it sets out to measure.
2. Reliability: Assessment should be independent of which assessor is involved (inter-assessor reliability) and independent of where and when a particular assessor marks students' work (intra-assessor reliability).

3. Transparency: This is about the targets being clearly defined, so that students are aware of the standards expected of them to gain particular grades, and the evidences required to demonstrate their achievement of the intended learning outcomes.
4. Authenticity: The assessment should relate to the real-world requirements of the profession, students will enter beyond the course being assessed.
5. Academic integrity: It needs to be striving to measure the students' achievement, in ways where it is certain that the achievement belongs to the student, by avoiding plagiarism.
6. Manageability for Students: The assessment should be efficient and manageable for students (valuable use of their time).
7. Manageable for Teachers: Efficient systems of assessment should be manageable for teachers by effectively using their time and resources.
8. Constructive Alignment: All assessments are to be properly linked to the learning outcomes and learning activities.
9. Inclusiveness: The assessment should provide a level playing field for students with learning disabilities, whether it is visual, reading or hearing.

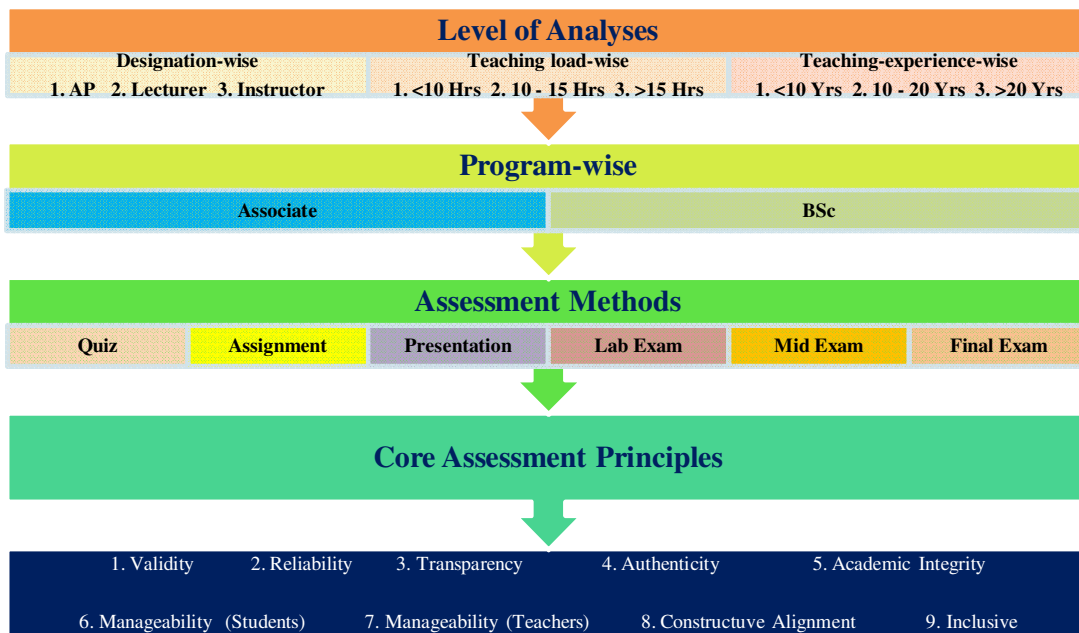


Figure 3. Evaluation Model of Assessment

All the assessment methods that are widely used in the department are appraised to the above mentioned standards and program wise. The study objectives are analyzed in this model - designation-wise, teaching experience-wise and teaching load wise.

## RESULTS AND DISCUSSION

Among the nine set standards (principles) of assessment, only transparency and students' manageability could rate at outstanding level in the study in general. The overall response of teachers on the set standards of assessment are as shown in Figure: 4. It point to the need for revival of reliability and inclusiveness, as the performance ratings are recorded poorly. Academic integrity and authenticity also need improvements.

As seen earlier, the IMT Department is offering Associate degree programs and Baccalaureate programs. Program-wise performances of assessment are as depicted in Figure: 5. The assessment standards at Associate degree level need improvements in reliability, academic integrity and inclusiveness, even though it performed better than that of Baccalaureate program.

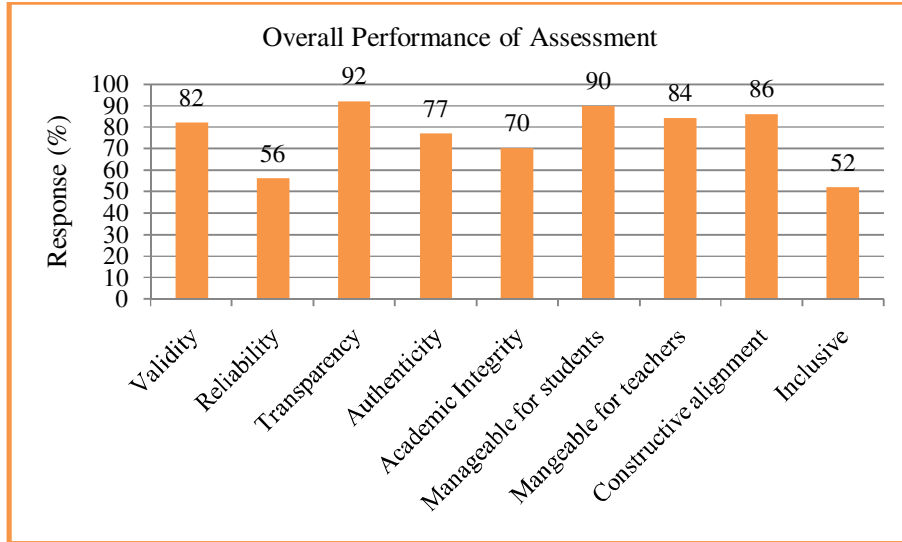


Figure 4. Overall Performance of Assessment

Source: Primary Survey (May, 2013)

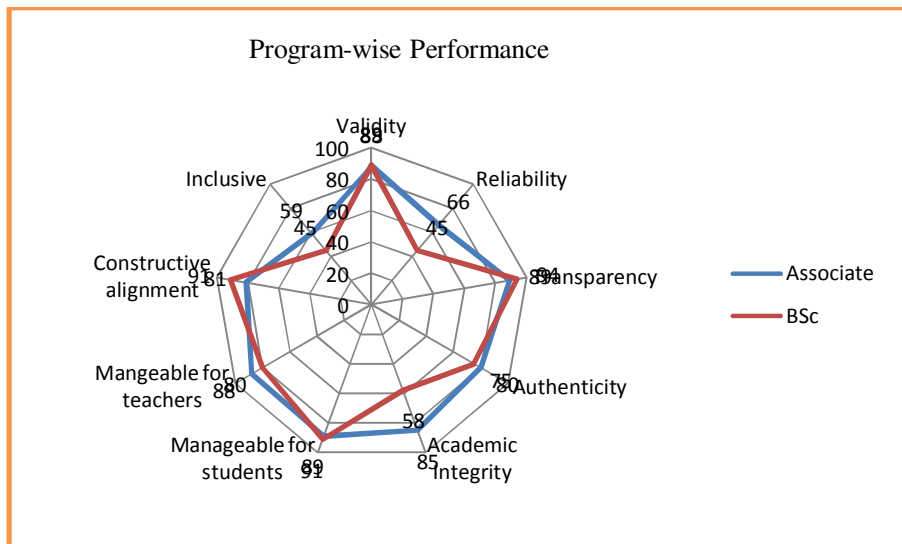
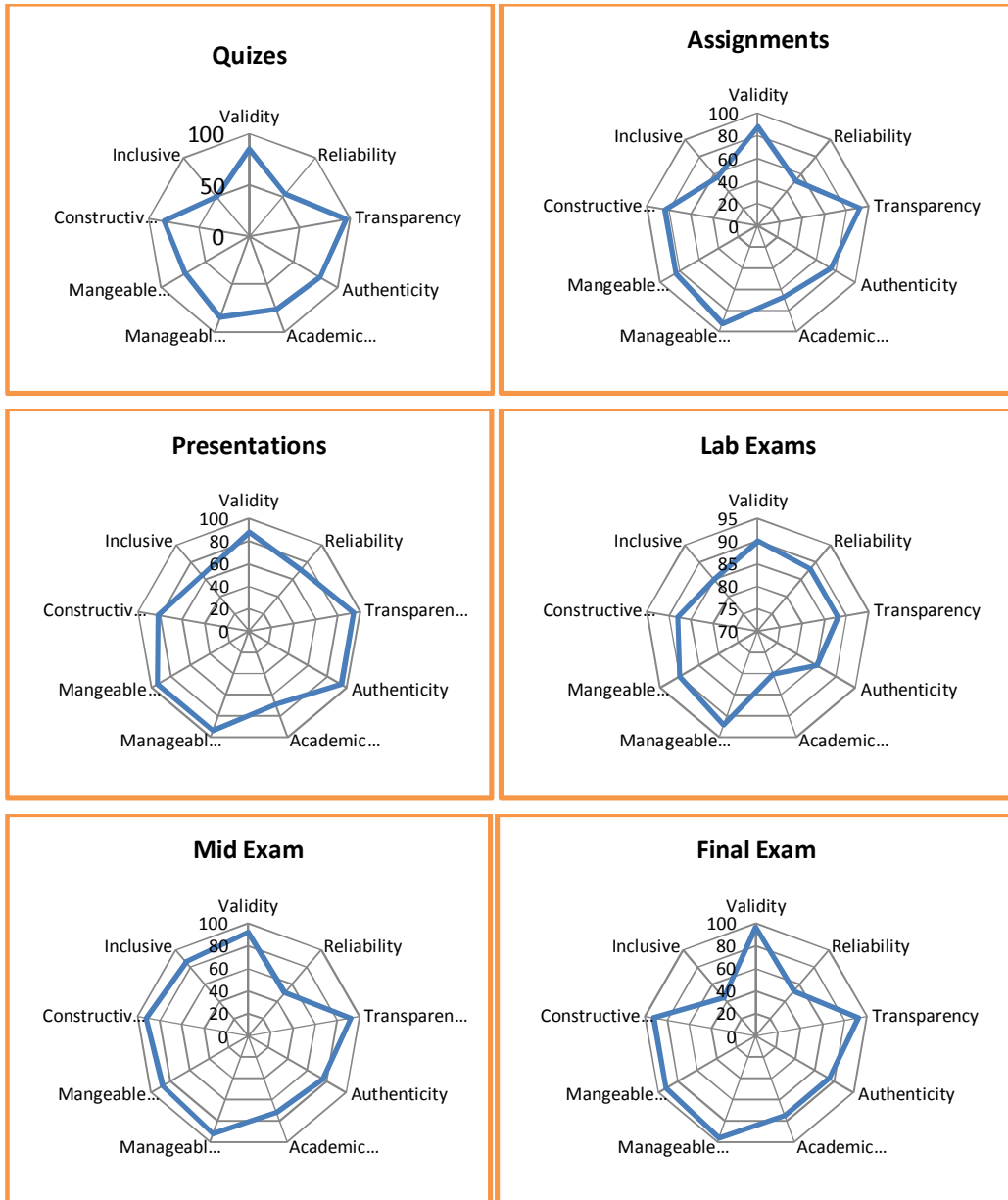


Figure 5. Program-wise Performance

Source: Primary Survey (May, 2013)

Detailed analyses of assessment are given in Figure 6. The analyses reveal that the quizzes and assignments conducted in the department requires improvements in reliability and inclusiveness; lab exams require modification in academic integrity, mid exams requires enhancement in reliability, and final exam requires revival at the reliability and inclusiveness ground. Program-wise Chi-square test results are illustrated in Appendix Table: 1.



Source: Primary Survey (May, 2013)

Figure 6. Assessment Method-wise Performances

One of the major objectives of the study was to analyze designation-wise inconsistency, if any, in assessment standards. As seen in Figure: 7, the reliability and inclusiveness standards are comparatively poor for instructors; whereas for Asst. Professors, academic integrity was recorded at low levels. Designation-wise Chi-square test results are exemplified in Appendix Table 2.



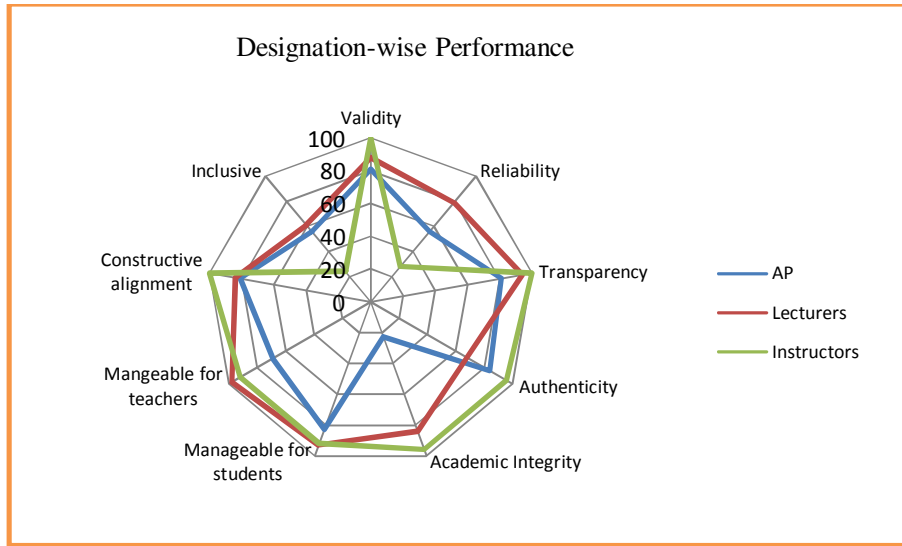


Figure 7. Designation-wise Performance

Source: Primary Survey (May, 2013)

Experience-wise performance of teachers on assessment standards, as illustrated in Figure: 8, reveal that young teachers are comparatively weak in adopting inclusiveness and authenticity in their assessments, whereas the senior are poor in following reliability standards. Experience-wise Chi-square test results are shown in Appendix Table: 3

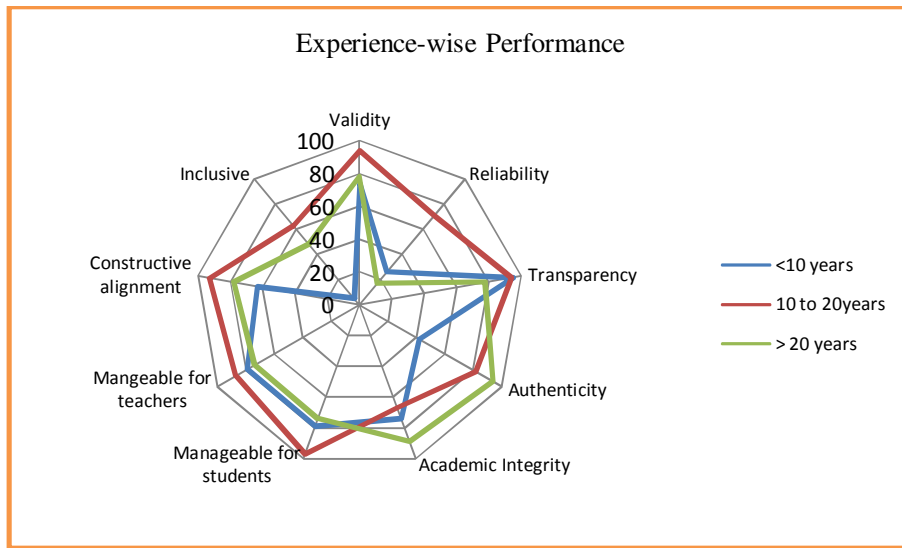


Figure 8. Experience-wise Performance

Source: Primary Survey (May, 2013)

One of the objectives of the study was to analyze the influence of teaching load on assessment standards. As demonstrated in Figure: 9, reliability and inclusiveness as set standards of assessment diminished, when the teaching load increased. However, for other assessment standards teaching load could not make much impact. Teaching load-wise Chi-square test results are revealed in Appendix Table 4.

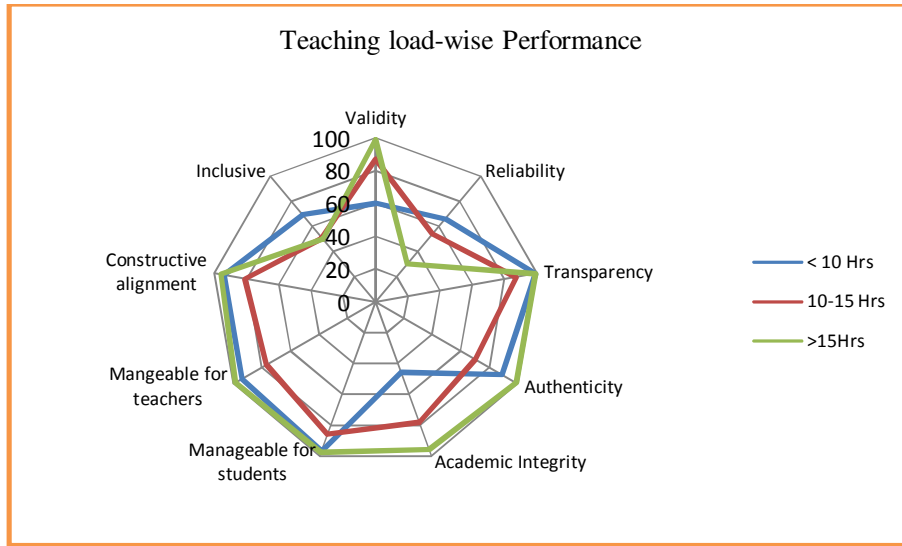


Figure 9. Teaching load-wise Performance  
Source: Primary Survey (May, 2013)

The descriptive statistics results are as portrayed in Table: 1; where in except, reliability and inclusiveness, all other principles of assessment averaged above 4 in five point Likert scale. As far as standard deviation is concerned, only for academic integrity, the value exceeded one.

Table 1. Descriptive Statistics Results

S. No	Principles	Mean	Standard Deviation	N
1	Validity	4.3643	0.99952	129
2	Reliability	3.7287	1.05143	129
3	Transparency	4.5039	0.90246	129
4	Authenticity	4.1532	0.85582	124
5	Academic Integrity	4.2339	3.82782	124
6	Manageability for Students	4.4574	0.93548	129
7	Manageability for Teachers	4.3256	0.96956	129
8	Constructive Alignment	4.3721	0.96881	129
9	Inclusive	3.8062	0.89336	129

Source: Primary Survey (May, 2013)

The correlation matrix is shown in Table 2: there is a high correlation between transparency and validity that is clarity on assessment and students’ advance knowledge on the required criteria. The matrix also reveals an interesting association between transparency, validity, manageability for teachers and that of students. If the assessment is manageable for teachers, then it will also be manageable for students. When the assessment is constructively aligned with learning outcomes and academic activities, such assessment also corroborates

transparency, manageability (teachers and students alike) and validity. The analysis also disclosed a negative association between inclusiveness and academic integrity, which point to the need for further research in this area.

## CONCLUSION

The quality of teaching-learning process is highlighted only when the assessment standards are set and followed properly. The business education in YIC always pursued the set standards of teaching-learning process along with the assessment. The present study reveals that the overall rating for the set standards of assessment was recorded at 77% and it point to the need for space for improvement. The revitalization of reliability and inclusiveness along with promotion of academic integrity and authenticity need special mention. The assessment standards at Associate degree level performed better than that of Baccalaureate program. The study also discloses the following on the individual assessment methods.

1. Quizzes and assignments conducted in the department requires improvements in reliability and inclusiveness;
2. Lab exams need modification in academic integrity;
3. Mid exams necessitate enhancement in reliability; and
4. Final exams entail revival at the reliability and inclusiveness ground.

Teachers' designation-wise response on assessment divulge that reliability and inclusiveness standards are comparatively neglected elements among instructors; whereas for Asst. Professors, academic integrity was reported to be a weak element in their assessment. The influence of experience factor on assessment was also analyzed in the study and found that young teachers are comparatively feeble in adopting inclusiveness and authenticity in their assessments, whereas the highly experienced ones did not give proper attention to reliability standards.

It is commonly believed that when the work load increases, correspondingly the efficiency standards also diminish is not observed to be true for the analyses of the assessment standards in this study, except reliability and inclusiveness as set standards. There is high correlation between transparency and validity along with an appealing connection between transparency, validity, and manageability for teachers as well as students. The study also highlights the significance of constructive alignment between learning outcomes, learning activities and assessment.

Based on the foregone discussion the following suggestions are offered:

1. Develop manifold measures to design a rational assessment system that links learning outcomes, classroom activities and continuous assessment.
2. Promote staff development through continuous training programs in effective learning and assessment backed by follow ups.
3. Creation of awareness among teachers and students alike on the standards of assessment and give focused feedback to teachers on how their classroom efforts support these standards.
4. Promotion of students' involvement in assessment for deeper level learning.
5. Equip the students self reflective skills which include the ability to see how their work meets the standard and how to improve.

**Table 2. Correlation Matrixes**

	<i>Validity</i>	<i>Reliability</i>	<i>Transparency</i>	<i>Authenticity</i>	<i>Academic integrity</i>	<i>Manageability for students</i>	<i>Manageability for teachers</i>	<i>Constructive alignment</i>	<i>Inclusive</i>
Validity	1								
Reliability	.600**	1							
Transparency	.730**	.582**	1						
Authenticity	.501**	.479**	.360**	1					
Academic integrity	-.010	-.077	-.051	.004	1				
Manageability for students	.781**	.620**	.835**	.428**	-.028	1			
Manageability for teachers	.731**	.570**	.802**	.309**	-.001	.842**	1		
Constructive alignment	.746*	.552**	.758**	.423**	.004	.793**	.735**	1	
Inclusive	.351**	.642**	.335**	.393**	-.098	.322**	.362**	.445**	1

Source: Primary Survey (May, 2013)

**Notes:**

If the only high-stakes summative test is a terminal one then the desired final outcomes are laid down, the test constructors have to reflect these in as valid a way as they can, and the teachers discern, from study of a syllabus and of examples of the test instruments and procedures, how best to focus their work.

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## APPENDIX

Appendix Table 1. Chi-square Test Results: Program-wise

<i>Principles of Assessment</i>	<i>Chi-square test</i>	<i>Values</i>	<i>df</i>	<i>Asymp. Sig. (2tale)</i>	<i>Remarks</i>
Validity	i. Pearson Chi-square	4.907	4	.297	6 cells (60.0%) have expected count less than 5. The minimum expected count is .99.
	ii. Likelihood ratio	5.925	4	.205	
	iii. Linear by linear association	.342	1	.559	
	iv. N of valid cases	129			
Reliability	i. Pearson Chi-square	16.952	4	.002	4 cells (40.0%) have expected count less than 5. The minimum expected count is 2.48.
	ii. Likelihood ratio	20.906	4	.000	
	iii. Linear by linear association	1.136	1	.286	
	iv. N of valid cases	129			
Transparency	i. Pearson Chi-square	5.845	3	.119	4 cells (50.0%) have expected count less than 5. The minimum expected count is 2.48.
	ii. Likelihood ratio	7.789	3	.051	
	iii. Linear by linear association	2.590	1	.108	
	iv. N of valid cases	129			
Authenticity	i. Pearson Chi-square	2.976	4	.562	4 cells (40.0%) have expected count less than 5. The minimum expected count is .48.
	ii. Likelihood ratio	4.128	4	.389	
	iii. Linear by linear association	1.086	1	.297	
	iv. N of valid cases	124			
Academic integrity	i. Pearson Chi-square	15.031	5	.010	4 cells (33.3%) have expected count less than 5. The minimum expected count is .48.
	ii. Likelihood ratio	17.188	5	.004	
	iii. Linear by linear association	3.220	1	.073	
	iv. N of valid cases	124			
Manageability for students	i. Pearson Chi-square	7.852	4	.097	6 cells (60.0%) have expected count less than 5. The minimum expected count is .50.
	ii. Likelihood ratio	10.213	4	.037	
	iii. Linear by linear association	1.874	1	.171	
	iv. N of valid cases	129			
Manageability for teachers	i. Pearson Chi-square	12.766	3	.005	2 cells (25.0%) have expected count less than 5. The minimum expected count is 2.48.
	ii. Likelihood ratio	15.195	3	.002	
	iii. Linear by linear association	.486	1	.486	
	iv. N of valid cases	129			
Constructive alignment	i. Pearson Chi-square	10.886	4	.028	4 cells (40.0%) have expected count less than 5. The minimum expected count is .50.
	ii. Likelihood ratio	13.298	4	.010	
	iii. Linear by linear association	.766	1	.382	
	iv. N of valid cases	129			
Inclusive	i. Pearson Chi-square	4.272	3	.234	2 cells (25.0%) have expected count less than 5. The minimum expected count is .99.
	ii. Likelihood ratio	5.051	3	.168	
	iii. Linear by linear association	2.744	1	.098	
	iv. N of valid cases	129			

Source: Primary Survey (May 2013)

Appendix Table 2. Chi-square Test Results: Designation-wise

<i>Principles of Assessment</i>	<i>Chi-square test</i>	<i>Values</i>	<i>df</i>	<i>Asymp. Sig. (2-tale)</i>	<i>Remarks</i>
Validity	i. Pearson Chi-square	16.926	8	.031	9 cells (60.0%) have expected count less than 5. The minimum expected count is .39.
	ii. Likelihood ratio	17.996	8	.021	
	iii. Linear by linear association	2.820	1	.093	
	iv. N of valid cases	129			
Reliability	i. Pearson Chi-square	40.857	8	.000	6 cells (40.0%) have expected count less than 5. The minimum expected count is .97.
	ii. Likelihood ratio	40.704	8	.000	
	iii. Linear by linear association	2.163	1	.141	
	iv. N of valid cases	129			
Transparency	i. Pearson Chi-square	16.439	6	.012	6 cells (50.0%) have expected count less than 5. The minimum expected count is .97.
	ii. Likelihood ratio	17.308	6	.008	
	iii. Linear by linear association	5.594	1	.018	
	iv. N of valid cases	129			
Authenticity	i. Pearson Chi-square	24.932	8	.002	6 cells (40.0%) have expected count less than 5. The minimum expected count is .20.
	ii. Likelihood ratio	25.219	8	.001	
	iii. Linear by linear association	1.229	1	.268	
	iv. N of valid cases	124			
Academic integrity	i. Pearson Chi-square	93.079	10	.000	9 cells (50.0%) have expected count less than 5. The minimum expected count is .20.
	ii. Likelihood ratio	84.932	10	.000	
	iii. Linear by linear association	10.460	1	.001	
	iv. N of valid cases	124			
Manageability for students	i. Pearson Chi-square	17.733	8	.023	9 cells (60.0%) have expected count less than 5. The minimum expected count is .19.
	ii. Likelihood ratio	17.961	8	.022	
	iii. Linear by linear association	3.231	1	.072	
	iv. N of valid cases	129			
Manageability for teachers	i. Pearson Chi-square	17.248	6	.008	5 cells (41.7%) have expected count less than 5. The minimum expected count is .97.
	ii. Likelihood ratio	17.223	6	.008	
	iii. Linear by linear association	7.502	1	.006	
	iv. N of valid cases	129			
Constructive alignment	i. Pearson Chi-square	40.532	8	.000	8 cells (53.3%) have expected count less than 5. The minimum expected count is .19.
	ii. Likelihood ratio	40.307	8	.000	
	iii. Linear by linear association	1.807	1	.179	
	iv. N of valid cases	129			
Inclusive	i. Pearson Chi-square	27.382	6	.000	3 cells (25.0%) have expected count less than 5. The minimum expected count is .39.
	ii. Likelihood ratio	31.286	6	.000	
	iii. Linear by linear association	3.597	1	.058	
	iv. N of valid cases	129			

Source: Primary Survey (May 2013)

Appendix Table 3. Chi-square Test Results: Teaching Experience-wise

<i>Principles of Assessment</i>	<i>Chi-square test</i>	<i>Values</i>	<i>df</i>	<i>Asymp. Sig. (2tate)</i>	<i>Remarks</i>
Validity	i. Pearson Chi-square	57.365	8		9 cells (60.0%) have expected count less than 5. The minimum expected count is .29.
	ii. Likelihood ratio	52.012	8	.000	
	iii. Linear by linear association	.155	1	.000	
	iv. N of valid cases	129		.694	
Reliability	i. Pearson Chi-square	64.228	8	.000	7 cells (46.7%) have expected count less than 5. The minimum expected count is .74.
	ii. Likelihood ratio	60.106	8	.000	
	iii. Linear by linear association	1.717	1	.190	
	iv. N of valid cases	129			
Transparency	i. Pearson Chi-square	42.974	6	.000	7 cells (58.3%) have expected count less than 5. The minimum expected count is .74.
	ii. Likelihood ratio	35.873	6	.000	
	iii. Linear by linear association	2.383	1	.123	
	iv. N of valid cases	129			
Authenticity	i. Pearson Chi-square	22.940	8	.003	8 cells (53.3%) have expected count less than 5. The minimum expected count is .15.
	ii. Likelihood ratio	20.414	8	.009	
	iii. Linear by linear association	10.860	1	.001	
	iv. N of valid cases	124			
Academic integrity	i. Pearson Chi-square	31.062	10	.001	12 cells (66.7%) have expected count less than 5. The minimum expected count is .15.
	ii. Likelihood ratio	33.503	10	.000	
	iii. Linear by linear association	1.225	1	.268	
	iv. N of valid cases	124			
Manageability for students	i. Pearson Chi-square	56.168	8	.000	10 cells (66.7%) have expected count less than 5. The minimum expected count is .15.
	ii. Likelihood ratio	47.634	8	.000	
	iii. Linear by linear association	1.673	1	.196	
	iv. N of valid cases	129			
Manageability for teachers	i. Pearson Chi-square	34.834	6	.000	5 cells (41.7%) have expected count less than 5. The minimum expected count is .74.
	ii. Likelihood ratio	29.029	6	.000	
	iii. Linear by linear association	1.009	1	.315	
	iv. N of valid cases	129			
Constructive alignment	i. Pearson Chi-square	48.197	8	.000	8 cells (53.3%) have expected count less than 5. The minimum expected count is .15.
	ii. Likelihood ratio	39.893	8	.000	
	iii. Linear by linear association	.058	1	.809	
	iv. N of valid cases	129			
Inclusive	i. Pearson Chi-square	23.792	6	.001	5 cells (41.7%) have expected count less than 5. The minimum expected count is .29.
	ii. Likelihood ratio	29.093	6	.000	
	iii. Linear by linear association	4.883	1	.027	
	iv. N of valid cases	129			

Source: Primary Survey (May 2013)



**Appendix Table 4. Chi-square Test Results: Teaching Load-wise**

<i>Principles of Assessment</i>	<i>Chi-square test</i>	<i>Values</i>	<i>df</i>	<i>Asymp. Sig. (2-tale)</i>	<i>Remarks</i>
Validity	i. Pearson Chi-square	21.303	8	.006	10 cells (66.7%) have expected count less than 5. The minimum expected count is .16.
	ii. Likelihood ratio	26.241	8	.001	
	iii. Linear by linear association	.000	1	.986	
	iv. N of valid cases	129			
Reliability	i. Pearson Chi-square	14.790	8	.063	9 cells (60.0%) have expected count less than 5. The minimum expected count is .39.
	ii. Likelihood ratio	16.107	8	.041	
	iii. Linear by linear association	6.345	1	.012	
	iv. N of valid cases	129			
Transparency	i. Pearson Chi-square	19.707	6	.003	7 cells (58.3%) have expected count less than 5. The minimum expected count is .39.
	ii. Likelihood ratio	25.826	6	.000	
	iii. Linear by linear association	2.159	1	.142	
	iv. N of valid cases	129			
Authenticity	i. Pearson Chi-square	32.897	8	.000	9 cells (60.0%) have expected count less than 5. The minimum expected count is .08.
	ii. Likelihood ratio	36.106	8	.000	
	iii. Linear by linear association	4.263	1	.039	
	iv. N of valid cases	124			
Academic integrity	i. Pearson Chi-square	52.156	10	.000	11 cells (61.1%) have expected count less than 5. The minimum expected count is .08.
	ii. Likelihood ratio	48.595	10	.000	
	iii. Linear by linear association	2.195	1	.138	
	iv. N of valid cases	124			
Manageability for students	i. Pearson Chi-square	14.442	8	.071	10 cells (66.7%) have expected count less than 5. The minimum expected count is .08.
	ii. Likelihood ratio	20.478	8	.009	
	iii. Linear by linear association	.005	1	.942	
	iv. N of valid cases	129			
Manageability for teachers	i. Pearson Chi-square	20.847	6	.002	6 cells (50.0%) have expected count less than 5. The minimum expected count is .39.
	ii. Likelihood ratio	26.035	6	.000	
	iii. Linear by linear association	1.247	1	.264	
	iv. N of valid cases	129			
Constructive alignment	i. Pearson Chi-square	46.595	8	.000	9 cells (60.0%) have expected count less than 5. The minimum expected count is .08.
	ii. Likelihood ratio	48.878	8	.000	
	iii. Linear by linear association	9.276	1	.002	
	iv. N of valid cases	129			
Inclusive	i. Pearson Chi-square	19.214	6	.004	6 cells (50.0%) have expected count less than 5. The minimum expected count is .16.
	ii. Likelihood ratio	22.735	6	.001	
	iii. Linear by linear association	12.289	1	.000	
	iv. N of valid cases	129			

Source: Primary Survey (May 2013)