

TTLC 2013

Assessment practices in higher education in United States

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Abstract

This study is an attempt to analyse the assessment practices among students and lecturers in an institute of higher learning (IHL) in the United States. The sample population comprised 170 undergraduate and postgraduate students and 22 lecturers from an identified School of Education. Questionnaires using a 6 point Likert-scale were administered to all respondents whilst interviews were conducted with 5 undergraduates, 5 postgraduates and 5 instructors. Descriptive analysis indicated that assessment practices (dimensions or overall) recorded above moderate level in higher education. Interestingly, students in the IHL favoured formative assessment over final examination. Besides that, students also expressed a positive response to receiving more constructive feedback from lecturers to help them to learn better. Generally, students' preference for feedback coincided with the concepts of formative assessment. This should augur well especially in laying the foundation for more specific action to further improve assessment practices in higher education in the United States as well as other universities which aspire to become exemplary universities.

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Selection and peer-review under responsibility of the Organizing Committee of TTLC2013.

Keywords: Assessment practices; feedback; higher education

1. Introduction

Most of the debates about higher education in the United States have focused on the curriculum, or what is taught. Only in recent decades we see a focus on the subject of scholarly inquiry, analysis, and evaluation (Huber & Hutchings, 2005). This may be a result of latest developments over the past two decades in which assessment has played a fundamental role in education policy in the United States, as it has in other countries for many decades.

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Large scale, summative assessments, for example, are viewed as powerful levers for influencing what happens in schools and classrooms, and as such, assessment studies are routinely carried out to gauge the strengths and weaknesses of students. Furthermore, with the acceptance of the No Child Left Behind Act of 2001, testing has become not only more routine but also increasingly influential and focused on core content domains. Results from large-scale summative assessments, along with other measures of achievement, are regularly used to determine whether students can advance to the next grade, and to judge the quality of schools and the educators who work in them.

As more students enter universities and colleges than ever before, traditional forms of teaching and learning are under increasing pressure to change. These pressures are a result of a more diverse student profile, globalization, and flexibility in modes of delivery, marketization of higher education, funding, and accountability. Each of these has implications for teaching and learning. These changes have affected the ways in which higher education is managed. As a result of this shift, faculty/staff have faced major changes to the environment in which teaching and learning takes place (D'Andrea & Gosling, 2005:11).

In recent years, educators, business leaders, and policymakers in the U.S. have questioned whether the current design of assessment systems focuses too much on measuring students' ability to recall discrete facts using multiple choice tests and structured essay questions at the cost of not adequately measuring a student's ability to engage in and complete complex thinking and problem-solving tasks. Outside observers of the U.S. school system have been quick to note potential shortcomings, claiming that narrowly focused high-stakes assessment systems produce at best deceptive student gains (Ridgeway, McCusker & Pead, 2004). The end result is a widening gap between the knowledge and skills students are acquiring in schools and the knowledge and skills needed to succeed in the increasingly global, technology-infused 21st century workplace. While the current assessment landscape is rife with assessments that measure knowledge of core content areas such as language arts, mathematics, science and social studies, there is a comparative lack of assessments and analyses focused on 21st century skills. However, meeting the demands of today's world requires a shift in assessment strategies as a means to better measure the skills that are highly expected in a complex global environment.

2. Literature Review

Formative assessment is the assessment at regular intervals of a student's progress with accompanying feedback in order to help to improve the student's performance. However, Boud (2000) cautioned that current assessment in higher education is insufficient to the task of preparing students for lifelong learning. Therefore, Boud & Falchikov (2005) suggest that we need to move from summative assessment that focuses on specifics, standards and immediate outcomes to more sustainable assessment that can aid students to become more active learners not only in managing their own learning but also assessing themselves to life beyond the end of the course. Boud & Falchikov (2005) pointed that there has been considerable critique of both the adequacy of current formative assessment to aid student learning to the ill effects of summative assessment. Interestingly, arguments have continued to the present day as to whether a single assessment system can possibly serve such diverse and conflicting aims. Nevertheless, the DES/WO report articulated the formative function of the proposed assessment system in a most helpful manner.

Promoting students' learning is a principal aim of schools. Assessment lies at the heart of this process. It can provide a framework in which educational objectives may be set, and pupils' progress charted and expressed. It can yield a basis for planning the next educational steps in response to students' needs . . . it should be an integral part of the educational process, continually providing both 'feedback' and 'feedforward'. It therefore needs to be incorporated systematically into teaching strategies and practices at all levels.

(DES/WO, 1988: paras 3/4)

The Task Group on Assessment and Testing (TGAT) report was accepted by the government of the day and following the Education Reform Act in 1988 the education system of England and Wales had at least in principle, an assessment framework which encouraged the kinds of ambitious formative assessment practices. It recommended assessment practice which (Lambert & Lines, 2000: 110):

informs planning articulates standard ('feedback') shows students what to do next in order to improve ('feedforward') becomes an organic part of teaching and learning.

Making the transition from dependence to independence learning is not just a matter of gaining skills and knowledge, or even becoming fascinated by a subject. It involves gaining confidence in those skills and in one's own ability to apply them, and the motivation to do so. It is not enough for the student to become capable of autonomous action; they must value autonomy. In order to be autonomous, a student will need some degree of metacognition: an understanding of the method of studying and learning he or she employs, so that they can change if required and conduct themselves in the most effective way. Autonomy does exclude seeking guidance but it does mean that the student can decide whether they need help and whether to follow advice. There are degrees of autonomy and it is part of the function of formative assessment that the teacher judges what autonomy a student has achieved, and helps the process along (Hussey & Smith, 2010:122). The shift in thinking represented by the TGAT quote takes us away from an assumption that assessment is something done after the teaching is finished and towards the notion that it is integral to teaching; you cannot claim to be teaching without undertaking forms of assessment and implication, this assessment activity helps ensure the quality of what is taught and learned (Lambert & Lines, 2000:110).

Torrance and Pryor (1998) appear to agree: Our own position is that formative assessment is an 'inevitable thing' in education.

According to Sadler (1989:121), formative assessment is concerned with how judgments about the quality of student responses can be used to shape and improve the student's competence by short-circuiting the randomness and inefficiency of trial and error learning. Sadler (1989:121) emphasized that formative assessment entailed yielding information that is useful in helping to improve teaching, helping teachers to get to know pupils and to plan work with appropriate pace, access and challenge as well as aiding pupils to understand how they learn best and how well they have learned. In addition, it also should provide the basis for effective feedback for pupils to help them realize their unfulfilled potential and should gear towards providing experiences and activities that enable pupils to involve them in assessment and monitoring their own achievements. Finally, it should provide experiences and activities that enable pupils to involve them in assessment and monitoring their own achievements. However, one also has to bear in mind that formative assessment is an investment both in terms of time and resources and hence, academia have to take proactive steps to ensure it can be implemented in such a way that it is authentic and improve student learning in a holistic manner.

3. Method

This study employed a mixed methods approach in conducting the research to explore the assessment practices and feedback provided in an institute of higher learning (IHL - hereafter) in the United States. The study was conducted in the School of Education in the researcher's host university during a sabbatical study in the United States. The population of the study consisted of undergraduates, postgraduates and lecturers from the selected school of education. A total of 12 clusters of courses were chosen randomly from the School of Education at the university. This brought the total sample size to about 192 respondents. The final sample that responded to the survey questionnaire comprised a total of 70 undergraduate students, 50 master students, 50 doctoral students and 22 instructors. As for the interviews, five undergraduates, five postgraduates and five lecturers from the selected courses were interviewed to shed some light on the assessment practices in higher education. A set of questionnaire, the Assessment Experience Questionnaire (AEQ) with a 6 point Likert-scale was adopted by the researcher from a study by Brenda Smith (1996). In addition, AEQ was primarily a prototype structured on 11 founded conditions under which assessment best support students learning (Gibbs and Simpson, 2003). It was purposely developed to deliver quick and easy evidence from students about the degree to which students' experiences of assessment meet the conditions under which assessment best support their learning. The questionnaire was administered to respondents who were faculty members and included professors, associate professors, assistant professors, instructors/tutors and also students. Both open-ended and close-ended questions were listed in the questionnaire to gauge the perceptions of both students and lecturers towards assessment practices in higher education.

4. Findings

As shown in Table 1, the respondents agreed with some practices of assignments. For example, students agreed that they need to self reflect on their own work ($M=4.11$, $SD=.869$); and tackling the assignments really made them think ($M=4.00$, $SD=.844$). Generally, other practices of assignments were also at the moderate agree level. Students agreed that assignments in higher education require them to use higher order thinking skills such as analyzing, synthesizing and evaluating. The instructions of the assignments were clear. Students learn more from doing the assignments than from studying the course materials and they can get assistance from others. Students were rather neutral to the fact that the assignments were challenging and the feedback is normally provided by peers during their presentations. However, students did not agree that they do not know what counted as a successful answer when tackling an assignment ($M=2.54$, $SD=1.183$). Students also did not agree that they can get away with not understanding but still get high marks while tackling an assignment ($M=2.48$, $SD=1.118$). The standard deviation value suggests that the scores on a few items tend to vary greatly among respondents.

Table 1. Assignment and Learning

Assignment and Learning	N	Min	Max	Mean	Std. Deviation
Students need to self reflect on their own work	203	0	5	4.11	.869
Tackling the assignments really makes me think	203	1	5	4.00	.844
I need to analyze, synthesize and evaluate while completing my assignment	203	0	5	3.94	.942
The assignments give very clear instructions about what we are expected to do.	203	0	5	3.71	1.028
I learn more from doing the assignments than from studying the course material	203	0	5	3.66	1.116
Doing assignments are better than exams, because I can get assistance from others	203	0	5	3.52	1.314
The assignments are very challenging	203	0	5	3.28	1.040
Feedback is provided by peers during presentations	203	0	5	3.19	1.543
When I tackle an assignment it is not clear what would count as a successful answer	203	0	5	2.54	1.183
In completing the assignments I can get away with not understanding and still get high marks	203	0	5	2.48	1.118

Scale: 0=not applicable, 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree

Another aspect explored in this study was views on Examination and Learning. Results presented in Table 2 show that respondents generally reacted negatively with almost all of the items. A majority of the students did not favour having a final exam in their courses ($M=1.94$, $SD=2.117$). Students did not agree that preparing for the exam was mainly a matter of memorizing. In fact, they also did not agree that preparing for exam brought things together for them. In addition, students also did not agree that they learn new things and understanding things better as a result of the exam. Besides that, students held the view that exams were not always very challenging. They further stressed that they will probably forget most of the things after the exam. The low mean scores indicated that respondents were aware of the negative items and they were not misled while answering the questions.

Table 2. The Examination and Learning

The Examination and Learning	N	Min	Max	Mean	Std. Deviation
There should be a final exam in this course	203	1	5	1.94	2.117
I learnt new things while preparing for the exam	203	1	5	1.53	1.870
Preparing for an exam brought things together for me	203	1	5	1.45	1.752
I understand things better as a result of the exam	203	1	5	1.37	1.740
The exam is always very challenging	203	1	5	1.34	1.720
I will probably forget most of what I have studied after the exam	203	1	5	4.33	1.696
Preparing for the exam is mainly a matter of memorizing	203	1	5	1.22	1.572
In the exam, I can get away with not understanding and still get good marks	203	1	5	1.05	1.385

Scale: 0=not applicable, 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree

In terms of criteria of feedback, data in Table 3 reveals that respondents agree that most of the time, the feedback provided by their lecturers was constructive ($M=4.14$, $SD=.975$), useful ($M=4.06$, $SD=1.005$), aided learning ($M=4.06$, $SD=.953$), and suited to students ($M=4.01$, $SD=.997$). To some extent, respondents also agreed that the feedback that they received was motivating, prompt and timely, continuous, more appreciated than the marks and treated as an integral part of the curriculum. However, respondents neither agreed nor disagreed that the feedback

related to a clear criteria. Students also did not agree that the feedback received was just another mark or grade ($m=2.22$, $SD=1.313$). In addition, they also did not agree that the feedback was only provided during exams ($m=1.65$, $SD=1.580$).

Table 3. Criteria of Feedback

Criteria of Feedback	N	Min	Max	Mean	Std. Deviation
Constructive	203	0	5	4.14	.975
Useful for future improvement	203	0	5	4.06	1.005
Aiding learning	203	0	5	4.06	.953
Flexible and suited to students' needs	203	0	5	4.01	.997
Motivating	203	0	5	3.99	1.024
An integral part of the curriculum	203	0	5	3.88	1.112
Prompt and timely	203	0	5	3.87	1.073
A continuous process	203	0	5	3.86	1.087
More appreciated than the mark	203	0	5	3.86	1.128
Relating to a clear criteria	203	0	5	3.54	1.219
Just another mark / grade	203	0	5	2.22	1.313
Provided only on exams	203	0	5	1.65	1.580

Scale: 0=not applicable, 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree

Findings in Table 4 indicated that to some extent, respondents agreed that they received a lot of feedback from their lecturers during the class ($M=3.95$, $SD=1.176$) as well as to how they are performing ($M=3.80$, $SD=1.096$), and they expressed that the feedback was returned promptly ($M=3.68$, $SD=1.122$). However, respondents reserved their opinions relating to feedback received from their peer during presentation and whether they would learn more if they received more feedback. Besides that, students did not agree there was hardly any feedback on their assignments when they got them back. They also did not agree that when they get things wrong or misunderstand them they do not receive much guidance in what to do about it and whatever feedback they get was too late to be useful for them.

Table 4. Quantity and Timing of Feedback

Quantity and Timing of Feedback	N	Min	Max	Mean	Std. Deviation
There is a lot of feedback from the instructor during the class	203	0	5	3.95	1.176
On this course I get plenty of feedback on how I am doing	203	0	5	3.80	1.096
The feedback comes back very prompt	203	0	5	3.68	1.122
There is a lot of feedback from peers during presentations	203	0	5	3.11	1.636
I would learn more if I received more feedback	203	0	5	2.99	1.412
There is hardly any feedback on my assignments when I get them back	203	0	5	1.90	1.316
When I get things wrong or misunderstand them I do not receive much guidance in what to do about it	203	0	5	1.82	1.222
Whatever feedback I get comes too late to be useful	203	0	5	1.79	1.188

Scale: 0=not applicable, 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree

As stated in Table 5, the respondents agreed with seven aspects of the quality of feedback to some extent. They agreed that the feedback shows them how to do better next time ($M=3.95$, $SD=1.021$), makes them learn better ($M=3.89$, $SD=1.016$), triggers creative thinking and problem solving ($M=3.87$, $SD=1.033$), helps them understand things better ($M=3.85$, $SD=1.023$), and why they got the mark they did ($M=3.74$, $SD=1.217$). However, they did not agree that the feedback received mainly tells them how well they are doing in relation to others. They also did not agree that they do not understand some of the feedback received and the feedback seldom informs them what they need to do to improve.

Table 5. Quality of Feedback

Quality of Feedback	N	Min	Max	Mean	Std. Deviation
The feedback shows me how to do better next time	203	0	5	3.95	1.021
The feedback makes me learn better	203	0	5	3.89	1.016
The feedback triggers creative thinking and problem solving	203	0	5	3.87	1.033
The feedback helps me to understand things better	203	0	5	3.85	1.023
Once I have read the feedback I understand why I got the mark I did	203	0	5	3.74	1.217
The feedback mainly tells me how well I am doing in relation to others	203	0	5	2.62	1.186
I do not understand some of the feedback	203	0	5	2.26	1.249
I seldom see from the feedback what I need to do to improve	203	0	5	2.06	1.247

Scale: 0=not applicable, 1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree

5. Discussion of Findings

Classroom assessments can be particularly helpful in monitoring the learning progress of students and making decisions about how to improve instruction (Tomlinson, 2008). Progress monitoring refers to conducting ongoing assessments to determine students' learning progress and the effectiveness of instructional program (Salend, 2009:120). Thus, assessment data are continuously collected over time and promptly analyzed to identify students who are progressing and ready for new instruction as well as those students who have not yet demonstrated mastery and need additional or revised instruction (Yell, Busch & Rogers, 2007). In this study, it was observed that formative assignments were used widely in most of the courses throughout the program based on questionnaire data. As shown in Table 1, the respondents agreed that some practices of assignments were at the high level. For example, students need to self-reflect on their work; and tackling the assignments really makes them think. Generally, students agreed that assignments in higher education require them to use higher order thinking skills such as to analyze, synthesize and evaluate as listed in Bloom's Taxonomy. This survey data was also supported by the interview data that most of the lecturers adopted small assignments approach to monitor student learning.

Interview data in this study showcased that most of the lecturers agreed with the positive impact of small assignments. Lecturers admitted that the use of small assignments enabled students to complete their assignments in a shorter time period and allowed lecturers to provide feedback on a timelier basis. Hence, some lecturers were observed to use up to eight or nine small assignments to monitor their students' learning. Sadler's point was that to be truly effective, classroom assessment needs to fully reach its formative potential, which requires students to be self-monitoring:

"For students to be able to improve, they must develop the capacity to monitor the quality of their own work during actual production. This in turn requires that students possess an appreciation of what high quality work is and that they have the evaluative skill necessary for them to compare with some objectivity the quality of what they are producing in relation to the . . . standard." (Sadler 1989:119)

Data from observations and interviews also indicated that formative uses of assessment really helped lecturers guide or monitor student learning while it is in progress. Undeniably, high-quality formative assessment and feedback to students increases student learning as suggested by Black & William (1998). In fact, formative assessment involves activities designed to provide feedback to students (Reynolds, Livingston & Willson, 2009:20) about their learning. Feedback, however, is likely to improve learning under certain conditions. Simply assessing students and reporting the results to them is not likely to affect their performance. Respondents also agreed that they received a lot of feedback from their lecturers during the class as well as how they were performing, and they expressed that the feedback was returned promptly. This finding is supported by Light's study in 2001 which reported that what helped students most during their university study were receiving timely feedback from their teachers. However, interviews conducted with students revealed some exceptional cases where some lecturers did not provide any feedback until the end of the semester. Learners must review both correct and incorrect performance and, in addition, be able to correct their incorrect performance. If the instructor in charge does not provide any feedback, then the students will have problems to identify their own weaknesses and tackle the learning problems appropriately. In other words, feedback must give specific guidance to students about what they must do to improve their learning. Therefore, lecturers who give students only their grade on a paper or test are not providing enough

feedback to help students improve (Nitko & Brookhart, 2011:12). However, the students in this study admitted that once they read the feedback they understood their marks better.

Feedback stands for a chance of being ‘consequently valid’ when the initial assessment produces evidence on which teaching and learning decisions can be based. In this study, based on feedback received from their lecturers, more than 80 per cent of the students reported moderate to high level of quality feedback. Basically, the student admitted that the feedback showed them how to do better next time and makes them learn better. The students also admitted that the feedback received triggers creative thinking and problem solving among themselves, and helps them to understand things better. In short, the communication of this evidence in a way ‘makes sense’ to the learner. The crux of the issue here then centres on delivering effective feedback (Black, 1998:132). These assessment practices as highlighted by Black (1998) were observed in the School of Education. Data in this study revealed that the feedback received by students was constructive, useful, aided learning, and suited students. To some extent, respondents also agreed that the feedback that students received was motivating, prompt and timely, continuous, more appreciated than the mark awarded and treated as an integral part of the curriculum. In addition, the criteria identified from the survey data, the interviews with students and lecturers supported the point made by Black (1998) that the feedback to students should be personal as well. However, students neither agreed nor disagreed that the feedback related to a clear criteria. Hence, assessments, as well as other assignments, should therefore embody the learning target (Shepard, 2006) so that students get an accurate and clear idea of what they are to learn. By providing a clear criteria or rubrics of assessment, students can compare their current performance on the learning target with the desired performance. Hence, a responsible instructor must be concerned with the feedback provided to students and try to fulfill the effective criteria of feedback as proposed by many renowned scholars in the area (Black, 1998; Glaser & Nitko, 1971).

5.1. Implications

The study suggests that students held moderate views with regards to formative assessment practices in higher education. The findings further indicated that active learning has been implemented successfully in the IHL. Another interesting finding was that most of the students agreed that they self-reflected on their work especially when completing their assignments and tackling the assignments also made them think. They admitted that whilst doing this they were concurrently required to employ higher order thinking skills such as analyzing, synthesizing and evaluating. Another interesting revelation of this study was the fact that students were not in favour of having final examinations in their course. In fact more than 95 per cent of the students proposed that there should be no final exam in their course. The finding implies a strong suggestion to abolish all final examinations at the undergraduate and postgraduate levels in higher education. Relating to the criteria of feedback, students suggested that all feedback should be constructive, useful for future improvement, aiding learning, motivating and suited to students’ needs. Besides that, the level of quantity and timing of feedback received by students implies that lecturers should be more concerned with providing timelier feedback. Generally, students felt happy with the quality of feedback and the way they responded to the feedback. However, the moderate level of assessment practices overall indicated there is still room for improvement in the assessment practices in higher education. The improvement of assessment practices in higher education requires cooperation and commitment from all parties namely students, lecturers and administrators.

5.2. Recommendations

The interface between higher education institutions and students is more complex than before. Expectations of today’s students, combined with an increasingly competitive market and the demand for lifelong learning, presents a host of challenges and opportunities to higher education institutions. For these, deans, deputy deans and program coordinators in the faculty can help to improve their instructors’ levels of teaching and assessment practices through various ways. However, the first step would be to require the faculty to be aware of this relatively new conception of formative assessment and active learning. Understanding the concept of active learning and formative assessment has the potential to enable the faculty to identify key areas and factors beneficial for certain students but not to others. For instance, focusing solely on improving the formative assessment would raise the levels of active learning among students. However, all faculty members should realize that summative assessment to a certain extent is still a

valid and reliable measure of student achievement. The examination committee at the faculty, for example, would be in a position to help its lecturers do their jobs better by taking advantage of the concept of formative assessment and active learning. This study suggests that formative assessment should be implemented widely in higher education to develop and enhance greater autonomous learning as well as better self-reflection practices among students.

6. Conclusion

Meeting the learning needs of students is a complex and demanding job for tertiary level institutions. As classroom assessments can be particularly helpful in monitoring the learning progress of students and making decisions about how to improve instruction, therefore formative assessment can act as a means in constructing a better management or method of assessment to be used at tertiary level in building a great future generation.

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