Belief and transparency on assessment: Students' and teachers' reflections

Sarala Luitel

Abstract

Assessment is the key aspect to evaluate learning status of learner's and academic status of the institution. Assessment practice should be transparent and believable for all. This study intends to assess students' and teachers' reflection on assessment based on belief and transparency of assessment. This research is descriptive survey type standing on post positivist paradigm. The major tools of the study are questionnaire and interview. Department of Mathematics Education, Central Department of Education was the study territory. The random sample was used to select the students of third and fourth semester studying on 2076 (2020). There were 12 teachers'91 students involved in questionnaire and three teachers and six students for interview. The data were analyzed using weighted mean. Further, data triangulation method was used to get the validity of the research.The findings indicated that there are positive reflections of students and teachers towards the assessment belief and transparency. Therefore, assessment will be more effective if it is planned in a reliable structure for valid results following the transparent criteria of assessment.

Keywords: Belief, Transparency, Formative assessment, Classroom assessment, Reflection

Introduction

Internal assessment is a backbone of the quality education due to its formative nature for the aspect of academic performance improvement. Clarke (2012) believes that both types of assessment (internal and external) should advance mathematics education but internal assessment is perhaps more obviously and directly connected with the improvement of mathematics learning than external assessment. Education and learning concern with the development of experience of a whole person and include the education of students acquiring knowledge, attitudes, skills and values that are the parts of life (Dewey, 2009). Therefore, education is a sensitive aspect that can creates individuals' social status, economic status, academic status as well as mental status which is directly associated with the emotional part of an individual.

Standardized assessment tools for summative evaluation and standard rubrics for formative assessment may create highly transparent assessment practice and belief on assessment. In this scenario, this study intends to assess the reflection for belief and transparency on assessment of both teachers and students.

Assessment and Emotions

Assessment is a key construct in education system for many reasons. Importantly, assessment acts as a gatekeeper that enables access to higher education, work, and increase income/social status, likewise, assessment is a leverage point used by education policy-makers to generate educational reform (Steinberg, 2008).The organization of tests and assessment influence students' emotion. If the organization, demands and consequences of assessments are not clear to students, test anxiety is increased due to uncertainty about the possibility of failure and its outcomes (Pekrun, 2014, p. 24)

A study of Mustafa &Bayram (2014) focused on the relationship between academic burnout and the classroom assessment environment where the findings demonstrated that the students'

levels of academic burnout differed significantly in accordance with their perceptions of the classroom assessment environment. Therefore, assessment result is associated with the students' emotions so that formative assessment practice should be prominent and distance between teacher and the student needs to be closed for real evaluation. Even though, a study revealed that students disagreed with the semester system of examination due to a number of drawbacks like favoritism, biases, and subjectivity (Munshi, Javed&Hussain , 2012).

Many times we have heard about the disagreements ofclassroom assessment beinga faculty memberduring the informal talk of students they shared as Munshi, Javed&Hussain(2012). Students complained that sometimes,internal assessment is not much believable,and neither there is proper reliable rule to evaluate students nor used rubrics for given assignments. Written examination is the main tool (Luitel, 2019) to evaluate students for classroom assessment.Rahman (2017)found that teachers perceive classroom assessment as summative assessment the similar sense of classroom assessment has been found in our context. Though, formative assessment is more closer to teaching learning improvement environment , it preserves more emotional part (Pekrun, 2014)especially, during the feedback period. In this scenario, internal assessment needs to be applied as formative tools and should be associated with the students' emotion that enables a teacher to assess a student from multiple aspects.

Belief and Transparency

Transparency is based upon the idea that students must have a clear understanding of where they are going as well as the criteria by which they will be assessed (American Council on Education, 2017) and belief refers to a viewpoint or a way that can be interpreted as mental constructs (Schoenfeld, 1998, p. 19). Belief guides the practice as well as inspires to create knowledge and skill that can be assessed in a transparent way increase the belief on assessment.

Belief and transparency are interrelated. Transparency in assessment is productive for learning depends on the criteria for true indicators of quality that have the potential to support student learning (Jonsson&Prins, 2019a). They further explain that mostly the literature talks about the connection between assessment transparency and student self-regulation because it prevents them from choosing their own learning goals that creates self belief in learners. There is a cyclic relationship betweenbeliefs and learning,and beliefs exert a powerful influence on students 'evaluation of their own ability (Spangler, 1992). Transparency enhances belief and belief flourishes on transparency.

Assessment principles and practices (2017) focused that increased transparency can only lead to better understanding and ultimately a better education for our students. Assessment is directly related to the teaching learning cycle where assessment plays the role as bridge as assessment directs the direction of way to be followed-Thus assessment way must be transparent and results should be believable.

In this circumstance, this study is significant to assess students' as well as teachers' experience on assessment belief and transparency because being a faculty member, I used to heard about the issues related to the transparency and belief on assessment specially for internal assessment. This study is worthy to analyze the view of teachers' and students' on belief and transparency of assessment that helps to understand the real ground of the assessment practice in the classroom for all related stakeholders.

Methodology

This study is based on descriptive survey design (Creswell, 2015) under the philosophical assumption of post-positivist paradigm (Taylor& Medina, 2013). Study was conducted in the territory of University Campus, Kirtipur, Kathmandu. Tribhuvan University was selected because of its longer history of semester system applied. Department of Mathematics Education was selected purposively where there were 15 teachers and about 160 students from third and fourth semester in the department of Mathematics Education. Students were taken as intact group from the class they were present in third semester of section A (38) & B (41) and fourth semester of section A (40) & B (42). Above mentioned semester was only in use during this study time. There were 12 teachers and 91 students to respond the distributed questionnaires and three teachers and six students were selected for the interview for data validation of the survey.

The main tools for the study were questionnaire and interview where questionnaire were distributed to all teachers and students. Interview was conducted with selected teachers and students for data validation. Data taken from the questionnaires were in the form of ordinal scale collected though likert scale and interview data were collected through semi structured interview schedule. Collected data were analyzed using descriptive statistical tools as weighted mean and average mean. Finally, the concept of Zone of Proximal Development (ZPD) of social constructivist theory (Vygotsky, 1978) was used to justify the study results on the epistemological and ontological basis.

Results

The study found the positive result regarding transparency and belief in assessment. Teachers and students both have expressed the assessment system is transparent and believable with few disagreements. Detail result analysis is organized here under the sub-topics; belief on assessment and the transparency on assessment here below.

Belief on Assessment

Teachers and students have positive belief on assessment with mean score 3.57 for teachers' view and mean score 4.02 for students' view. The finding assures that there is positive view of teachers and students comparing with total mean score and scale mean score that is three. The given table 1 shows the situation of the belief based on respondents' view.

Table 1.*Comparative table of belief based on teachers' and students' view*

Items	Teachers' Reflection		Students' Reflection	
	Weighted Mean	Remarks	Weighted Mean	Remarks
Beliefs on Assessment				
1. Internal system of examination foster good study habits among the students and teachers.	4.5	P	4.60	P
2. Student- teacher relationship is positively developed through internal system of examination	4.25	P	4.40	P
3. Teachers are influenced in internal system of examination.	3.08	P	3.52	P
4. Some teachers may not cover the whole syllabus and just teach selective topics from examination point of view and assess from limited area of course.	3.5	P	4.19	P

Items	Teachers' Reflection		Students' Reflection	
	Weighted Mean	Remarks	Weighted Mean	Remarks
Beliefs on Assessment				
5. Favoritism, like and dislike are also weak points of internal system of examination.	2.58	N	3.06	P
6. Internal assessment system promotes healthy competition among the students.	4.16	P	4.52	P
7. Examination system at postgraduate level should be the combination of internal & external system of examinations.	4.66	P	4.72	P
8. Teachers provide clear basis to assure internal assessment marks where there is not possibility to change the marks as per students demand without any basis.	3.6	P	4.15	P
9. Teachers provide intended marks to students in internal assessment to demanding students without any basis.	2.16	N	2.96	N
10. Getting good marks in internal assessment is not difficult as external examinations.	3.16	P	4.1	P
A mean average of responses	3.57	P	4.022	P

P: Positive, N: Negative

There are 10 statements in the section *believes on assessment* where over all belief of teachers and students on assessment have positive in all opinion except two statements 5 and 9. In statement 5 there is positive view for students and negative view for teachers in overall mean score but if we go through the response of the respondents the high response is see in the neutral section for students and disagree for teachers' response. Though statement 8 have positive view of both teachers and students, there is also more response of teachers are in neutral and more response of students are in agree. For the statement 9 in a same way, mean score has shown negative response on both teachers' and students' view. In this statement also students responded maximum on neutral section and teachers were disagreed with this statement.

Transparency on assessment

Teachers and students have positive view on transparency on assessment like as belief. The overall calculated mean score on the basis of respondents' response on questionnaire is 3.67 for teachers and 3.60 for students. Comparing with the scale mean 3, mean score calculated for teachers' and students' responses indicate the positive view regarding transparency on assessment. This result has shown in the table 2 here below:

Table 2.*Comparative table of transparency on assessment based on teachers' and students' view*

Items	Teachers' Realization		Students' Realization	
	Weighted Mean	Remarks	Weighted Mean	Remarks
Transparency				
1. Learners are informed about the types of assessment is to be used.	4.08	P	3.78	P
2. Learners are aware how their assessment will be marked.	4.41	P	4.54	P
3. It is informed in advanced that when and on what I am being assessed.	4.16	P	4.49	P

Items	Teachers' Realization		Students' Realization	
	Weighted Mean	Remarks	Weighted Mean	Remarks
Transparency				
4. Learners are informed about their achievement on time so that they will get time to improve their achievement?	4.41	P	3.85	P
5. Semester plan is displayed for internal assessment	2.83	N	3.05 (Neutral)	P
6. Provided marks in internal assessment is reliable and trustworthy with reference to learner's ability.	4.5	P	3.92	P
7. Examination system at graduate level should be external system only rather both (Internal & external).	1.33	N	1.59	N
Mean average of responses	3.67	A	3.60	P

P: Positive, N: Negative

In this section of transparency on assessment there are seven different statements where five statements are positive for both teachers, one statement (statement 5) is negative for teachers and positive for students but higher number of students responded the statement as neutral. Likewise, one statement (statement 7) is fully negative from both (teachers and students) respondent. However the individual statements' response are, theover all response of both respondents are positive with mean score more than three that directs assessment practice is transparent with students.

Common Reflections

Teachers and students have some common reflections regarding the belief of assessment and transparency. Teachers, students and other stakeholders, believed that internal assessment creates good study habit as well as strengthen the relationship between teacher and the student. Teachers also have accepted that there exists individual influence in internal assessment some time. Though the internal assessment promotes healthy competition on students, teacher some time, limits the assessment practice concentrating final examination if the course has not been finished on time.

Teachers and students both have the positive agreements on transparency as belief. What types of assessment is planned to assess students was pre- informed to students and students used to be prepared on informed content area for pre- fixed time schedule. After conducting the assessment in different modes, students used to be informed about their grade and those who is not satisfied with their grade they can improve their grade appearing in re-assessment process so that the students' feel their achievement is trustworthy.

However, some disagreements are there on both belief and transparency on assessment from teachers and students, they feel better if there is both practice of assessment; internal assessment and external evaluation rather unitary assessment practice.

Discussion

Assessment reform concentrate for many aspects such as reporting on students' achievement or monitoring the effectiveness of an instructional program along with the central purpose to enhance student learning (Wiliam, 2007). In this context, teachers and students should have the fairly positive belief on assessment. Assessment criteria should be clear and

evaluation needs transparency. If there is high belief on assessment then there is high practice in classroom assessment (Calveric, 2010) that indicates the necessary of positive belief of the teachers for better classroom practices as well as the transparency of the assessment plays the positive role to the belief creation.

Expectations and Obligations

Although the belief and transparency towards the assessment is found positive in aggregate, there are some disagreements with the statements. For the statement 5 it was given 'favoritism, like and dislike are also weak points of internal system of examination'. For this statement, teachers rejected the statements but no students rejected the statements instead less students accepted and more students stood on neutral position for this statement. Sadler (1989) stated that "when an assessmentrequires a response based on argument rather than being purely correct or incorrect thecriteria for judgment and explaining expectations are more difficult to articulate" (p. 120). This may be reasons that teachers felt difficult to fulfill the expectations of the students so they thought there exists favoritisms, like and dislike on assessing process.

While talking with students regarding statement 5, a student (S_1) expressed "S*ome teachers do not attained class regularly, they teach only exam oriented lesson and provide high marks as students demand without any basisto make student happy who complained about their performance"* This expression informed about the examination oriented teaching practice rather learning oriented teaching is being practiced in the classroom.. Teacher just tried to convince students providing expected grade to students without reliable basis. I asked to students how often and how many teachers do so? Student (S_2) replied, "*Very few teachers do so for some time, many teachers provide grade on the basis of some criteria like assignment, examination, even content related interview*". S_2clarified that many teachers do not provide grade on students' demand without any criteria but S_2also indicated very few teachers' behavior exists as S_1 said. With the reference of students' view, teachers were asked regarding the basis of grade assign to the students' teacher said, *"Students misinterpreted the situation. Actually, students request us some time for the marks adjustment with reference to their work done for assessment and other teachers' provided assessment grade so we revisit sometime for sensitive cases"*T1. Teacher justified the students disagreements that there was not the teachers' intention to revisit the students' grade but teachers were sensitive and accountable for students' achievement as per need if there is justifiable logic for the grade revision.

Internal assessment is preferred for the quality enhancement of the teaching and learning (Clarke, 2012). A major assumption of a social constructivist theory is the identification of the Zone of proximal Development and fulfilling the learning gap through scaffolding (vygotsky, 1978). In this scenario, teachers and students have accepted that some teachers may not cover the whole syllabus and just teach selective topics from examination point of view and assess from limited area of course is not justice for good assessment as good teaching and learning. Teachers can spend approximately (10 -50) % of their work time on assessment related activities (MacBeath& Galton, 2004) that helps to find the distance between the actual development level of learner and potential development level can be filled up through scaffolding. But exam oriented teaching / learning process is not healthy and

enough way for learning chain that hamper to assess multiple aspects of students' learning. Teachers shared their view for the exam oriented learning system of students also creates obstacle for teachers to cover the learning outcomes as per curriculum demands and directs to teachers in obligatory situation regarding assessment within the limited content.

Critical Analysis of Responses

The study results have shown that there is transparency in internal assessment with reference to mean scores 3.67 for teachers and 3.60 for students. Both teachers and students view is positive for learners' awareness, pre-information about assessment area and technique along with information about the assessment marks but regarding the assessment plan students approved their voice for there was not presented assessment plan in the classroom and teachers expressed constant view for the case. Though there is no structured plan for the classroom assessment, students used to pre informed about time and content for the assessment. Teachers and students both refused the statement for the need of external exam only that means they value for the internal assessment. Formative assessment plays an important role to minimize the ZPD (Michael, 2016) area which comes under the role of internal assessment. In questionnaire, teachers and students both are more or less have positive experience for many opinion but when I asked to students regarding feedback Student (S4) expressed "*There is very less practice to provide feedback individually but teachers show our copy of written examination though there would not be written any comments except marks but we are free to ask reason to teachers if we are not satisfied*". For the same case, teachers express that time would be limited, number of students were more so it was impossible to provide feedback individually but teachers did as per students need and students were free to ask if any query. From this version, I can conclude that though there is not scheduled practice for feedback, they get as per their needs.

Students were also asked about the reliability and trustworthiness of assessment practices for classroom assessment, student (S_5) said, "*Though there is no standard frame of assessment, it discriminates the level of student's ability tentatively*". Remaining students were also agreed with the view of S_5. Teachers were agreed too with the view of students. Yorke (2003) pointed out that assessments in higher education are complex as they have many dimensions that causes difficulties for the "clarity of assessment standards" and standardizing quality (Cartney, 2010). Similarly, another report by Khaniya, Parajuli&Nakarmi (2015) indicated that there is lack of strong technical process of examinations such as reliability and validity of the test so that teachers are not aware towards such process. This study talks about the process of examination only but there is needed to talk about assessment process. To create assessment standards, semester plan and clear assessment rubrics is necessary (Jonsson & Prins, 2019) so that students' achievement will be trustworthy .

Furthermore, the persons involved in the whole process of examinations lacked academic training on assessment and examination; only the experience was working might be the cause of unstructured assessment practice in the classroom. Teachers should have the idea of alternative assessment techniques for classroom assessment as well as rubrics creation for assessment based on their courses.

Conclusion

Teachers and students both have belief on assessment and can be observed even transparency in classroom assessment based on the view they expressed through questionnaire and interview but there is not found a reliable and valid process in assessment practices in the classroom. Students may be victim without assessment plan for a semester with rubrics and so assessment grade may fail to ensure the ability of the learners with non standardized tools of assessment. Therefore, the belief and transparency are the crucial characteristics of assessment that foster trustworthiness of the result which is equally important to hold quality in education system. In these circumstances, teachers need to plan properly for the learners' overall assessment activities preparing standard rubrics for assessment that will foster the self learning as well as self assessment skill to the learners themselves. Moreover, Institutions also should provide the professional development training regarding assessment planning, idea of alternative assessment in the classroom and standard rubrics preparation so that we can assure the students' ability that play a positive role to ensure the quality education for the Nation.

Acknowledgement

References

American Council on Education. (2017). *Unpacking relationship : Instruction and student outcomes,leadership and advocacy.*Retrieved from*https://www.acenet.edu/ Documents/Unpacking-Relationships-Instruction-and-Student-Outcomes.pdf*

Calveric, S.B., (2010).*Elementary teachers' assessment beliefs and practices* (Doctoral dissertation). Retrieved from http://citeseerx.ist.psu.edu/viewdoc doi=10.1.1.838.1715&rep=rep1&type=pdf

Cartney,P. (2010). Exploring the use of peer assessment as a vehicle for closing the gap between feedback given and feedback used.*Assessment& Evaluation in Higher Education 35*(5):551-564. doi: 10.1080/02602931003632381

Clarke, M. (2012).*What matters most for student assessment systems? A framework paper*. Washington DC: The World Bank.

Creswell, J. W. (2015). *Educational research: Planning, conductint and evaluating quantiative and qualitative research.* Noida: Pearson India Education Services Pvt. Ltd.

Dewey, J. (2009*). Moral Principles in education*, Retrieve from www.languageinindia.com

International Baccalaureate Organization. (2017). *Assessment-principles-and-practices-2018-en.pdf*. Retrieved from https://www.ibo.org/contentassets/ df850e366447e99b5a862aab622883/assessment-principles-and-practices-2018-en.pdf

Jonsson, A., &Prins, F. (2019a). Editorial: Transparency in Assessment— Exploring the Influence of Explicit Assessment Criteria. *Frontiers in Education*, *3*,119. https:// doi.org/10.3389/feduc.2018.00119

Khaniya,T.;Parajuli, T.; &Nakarmi, S. (2015). *Background study: Curriculum,textbooks, and student assessment and evaluation (*Report: RS 1156_SSDP).Government of Nepal, Ministry of Education. Retrieved from http://cdclibrary.org/elibrary/pages/download.php?ref=1156&size=&ext=pdf&k=&alternative=-1&usage=-1&usagecomment=

MacBeath, J. & Galton, M. (2004).*A report commissioned by the national union of teachers concerning the workloads in secondary schools.*Faculty of Education, University of Cambridge.Retrieved from https://www.educ.cam.ac.uk/people/staff/galton/aLiSTreport.pdf.

Michael, G. J. (2016) *Teachers' perceptions of assessment practices in mathematics: comparing rural and urban secondary schools in England.*A Doctoral Dissertation of Education, Liberty University.

Munshi, P.,Javed, M. &Hussain, I. (2012). *Examination in semester system: what is observation of faculty and students?*The s.u. jour. of ed. *41.*

Pekrun, R. (2014). *Emotion and Learning.pdf.* Retrieved from https://unesdoc.unesco.org/ark:/48223/pf0000227679

Rahman, M.M (2018). Teachers' perceptions and practices of classroom assessment in secondary school science classes in Bangladesh. *International Journal of Science and Research* (IJSR), doi: 10.21275/ART20183034

Sadler, D.R. (1989). Formative assessment and the design of instructional systems. *InstrSci* 18**,** 119–144 (1989). https://doi.org/10.1007/BF00117714

Schoenfeld, A. H. (1998). When good teaching leads to bad results: The disasters of "well taught" mathematics courses. *Educational Psychologist*, 23(2), 145-166. Retrieved from http://www.sedl.org/pubs/pic02/picbiboutput.cgi?searchuniqueid=53

Spangler.D.A. (1992) *Assessing Students' Beliefs About Mathematics* Retrieved from https://www.researchgate.net/publication/239929788_Assessing_Students'_Beliefs_About

Steinberg, C. (2008). *Assessment as an Emotional Practice.pdf.* English Teaching: Practice and Critique. Retrieved from http://education.waikato.ac.nz/research/files/etpc/2008v7n3art4.pdf

Taylor, P. C., & Medina, M. N. D. (2013). Educational research paradigms: from positivism to multiparadigmatic. *Journal of Meaning-Centered Education*, *1*, 1–16. https://doi.org/10.1007/s13398-014-0173-7.2

Vygotsky, L.S. (1978). *Mind and society: The development of higher mental processes.* Cambridge, MA: Harvard University Press.

Yorke,Y.M. (2003). Formative assessment in higher education: Moves towards theory and the enhancement of pedagogic practice. Higher Education 45 (4): 477-501. doi: 10.1023/A:1023967026413

About the Author

Sarala Luitel is a Lecturer at University Campus, Tribhuvan University, Kathmandu, Nepal. She has completed Master's Degree in Mathematics Education from TU. She is currently a Ph. D. scholar in Mathematics Education at TU. She is interested in studying assessment techniques for mathematical knowledge, technology in mathematics, discourse analysis regarding necessary of mathematical knowledge and learner centered pedagogy in mathematics education.