Enhancing Class XI students' learning of Economics Using Peer and Self-Assessments

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Abstract

Assessment is the engine that drives learning and can track student's progress. Peer and self-assessments are essential aspect of 'assessment as learning' within formative assessment. This action research explores the effectiveness of peer and self-assessments in enhancing Class XI students learning Economics. All 80 students (XI Commerce and XI Arts) participated in the action research. The quantitative data collected through an aptitude test was analyzed using Microsoft Excel for frequencies and percentages. Qualitative data collected through journaling (n= 80) and three FGD (n= 15) were analyzed using themes and sub-themes. Reflection formed an integral part of the two cycles of implementing the intervention strategies. The study revealed that peer and self-assessments provide opportunity for students to assess their peers' and their own performance. It also serves to assess the progress made by the students. Therefore, the study recommends teachers to include peer and self-assessment in their student assessment process. However, carrying out peer and self-assessments can be a bit challenging for teachers due to the work load, large class size, wide syllabus coverage, exam-oriented curriculum, and student competency in assessment practice.

Keywords: Peer assessment, self-assessment, students, learning

Introduction

Globally assessment is one of the topical issues in the sphere of education and Bhutanese education system is no exception. Education is a learning cycle without an end. In recent times, many schools have undergone significant transformation in their pedagogy and assessment practices. However, in Bhutan teachers are thought of as a source of knowledge. As a result, the learning process is dominated by teacher centered approach both at the primary and secondary education levels (Sherab, 2013). The students passively listen and teacher disseminate the information. Teacher centered and textbook-based learning was not meaningful, and considered obsolete in a globalized society. Rapidly changing socio-economic, political and technology often make textbooks and articles outdated soon after its publication. On the contrary, constructionist learning design is centered on the idea that learning is a process of making something that makes sense in real life (Lillejord et al., 2018).

The quality of classroom instruction and assessment practice determine the quality of education and engagement of students. The use of poor classroom instruction and assessment with teacher centered approaches can deteriorate the quality of education (iDiscoveri Education & Royal Education Council, 2009). For example, a teacher might have many years' experiences, but the experience would mean insignificant in the learning process if the teacher keeps repeating the same thing without bringing innovation and change in pedagogical practices (Boris, 2020).

Assessment and reporting are clearly emphasized under the Standard Five of the Bhutan Professional Standard for Teachers according to which teachers are expected to use various modes and tools of assessment to support student learning. Teachers need to monitor and evaluate student progress, and provide constructive feedback to students/ parents/guardians to improve academic performance. Teachers also need to use various assessment data to reflect on their instructional practices, and improve teaching-learning processes (Ministry of Education, 2020a). Thus, it is important for teachers and students to understand and strengthen the assessment and reporting in the teaching-learning process. Dechencholing Higher Secondary School, as one of the 22 schools implementing the Bhutan Baccalaureate (BB) education believes assessment as the engine that drives student learning. The use of Peer Assessment and Self-Assessment techniques are frequently used in the BB education. The learning approach of BB recognizes that each individual possesses a unique and budding system of knowing and actualizing the potential (Druk Gyalpo's Institute, 2022; Druk Gyalpo's Institute, 2021).

Literature Review

Assessment is a fundamental component of learning since the time of Socrates (Wiggins, 1999). The term assessment is derived from Latin word "assidere'" meaning "to sit beside" (McTighe & Ferrara,

1994). Birenbaum (2016 as cited in Nishizuka, 2022), argues that assessment is all about learning and assessment drives learning through the dialogue and interaction with the students. Assessment serves as a mechanism for hearing students' voices and understand the perspective and progress of students (Nicol, 2010).

Rogers (2003) outlined that the goal of democratic education is to assist students to become individuals. Involving learners to assess other works and assess their own works deepen their learning and perspectives (Race, 2010). Peer and Self-Assessment are important aspects of assessment for learning practice and they inform teachers on what worked and what needs more effort. Assessing other's works or their own work can help students develop their understanding of learning objectives and success criteria.

The various research has shown that the students who were taught through peer and self-assessment make more progress when they are actively involved in their own learning and assessment (Ndoye, 2017). Logan (2009) found that the peer and self-assessment have positive effect on student learning through self-confidence and reflective thinking. Peer assessment is formative as well as can be summative assessment of learners by other learners. According to Reinholz (2015, p.1) peer assessment is "a set of activities through which individuals make judgment about the work of others". With peer assessment, students will not have to wait for their teachers to give feedback on their work. Students can get fellow students to give feedback about one's work. Peer feedback increases opportunity to get feedback and apply the assessment criteria to assess progress and improve work. It helps both the feedback giver and the receiver to continuously monitor work quality and thereby produce better quality work.

Self-assessment is a formative assessment of students by themselves. Self-assessment becomes more meaningful with clear criteria by which students can assess themselves. Once the students are clear with criteria, they can continuously assess their own performance and make improvement. Bourke and Mentis (2011, p. 859) define self-assessment as a process where "students are directed to assess their performance against pre-determined standard criteria ... [and] involves the students in goal setting and more informal, dynamic self- regulation and self-reflection". Self-assessment allows students assess their own performance given a criterion. Self-assessment helps the students know the extent of their abilities and work to improve upon them without the need of a performance appraiser. It also promotes students become a critique of self, self-reflective and take ownership of learning. Self-assessment is advantageous because it does not require a student to wait for someone to assess and provide feedback, but can cross-reference one's work with the intended outcomes and continuously keep improving it (Bourke & Mentis, 2011).

Both the peer and self-assessment practices among the students can promote a belief and

motivation to control and direct their own learning and focus necessary efforts for learning achievements. Peer and self-assessment consist of continuous, time saving revision and improvement of one's performance. Under peer and self-assessment students assess each other and themselves, thus reducing too much dependency on teachers to give feedback. Students take greater responsibility for their own learning with assessment criteria and reflections. Peer and self-assessment have the potential to enhance lifelong learning practice and also equip students with necessary skills for peer and self-assessment with objectivity (Yorke & Longden, 2004). The definition outline that the peer and self-assessment help to promote learning through a sense of internal responsibility for their own learning,

The peer and self-assessment on learning has attracted the attention of researchers. The prior research on assessment in general, as well as peer and self-assessment, on driving student learning found that peer and self- assessments reinforce a self-regulated learning atmosphere (Cheng & Warren, 2005; De Grez, Valcke, & Roozen, 2012; Kearney, 2013; Rust et al., 2003; Winne (2003). Similarly, Logan (2009) argue that peer assessment gives a better understanding for students on assessment criteria and leads to deeper learning. Peer and self-assessment make students more critical and reflective about their task. According to Boud (1989) both peer and self-assessment emphasise on the development of student autonomy. As a result, students are able to plan and manage their own journey of learning, or process of becoming lifelong learner.

In the study by De Grez et al., (2012) there is a significant learning gains for students as a result of being engaged in peer and self-assessment. Planas Llado et al. (2013) found that peer assessment gives a higher level of motivation, sense of confidence and engagement and change attitude of students.

Bourke and Mentis (2011) found that self-assessment foster student involvement in learning and provide appropriate learning opportunities to all students. Self-assessment engages the student as an active participant in own learning rather than waiting for others to intervene. There are various examples of peer and self-assessments such as discussion, anonymous feedback, journal, learning and response logs, observation, sharing with another pair and online quizzes and poll. Struyven et al., (2002) argue that peer and self-assessment brings deeper learning when peer and self-assessment are not used as summative tasks or to assign a grade. When peer and self-assessment are used as formative, it fosters conducive environment to engage students in their own learning. Formative assessment actively engages students in learning. Students become aware of learning gaps and address gaps by finding more resources. Peer and self-assessments are part of modern human resource management practice (Struyven et al., 2002). The peer and self-assessments are theoretically strong, that emphasizes students constructing knowledge within a formative learning environment. With peer

and self-assessment, learning is more fully integrated with assessment. Ideally, students should grow up using peer and of self-assessment throughout their life and thereby create an earning society (Struyven, et al., 2002).

The independent learning and the ability to take responsibility for own learning does not happen automatically. Therefore, according to Cohen et al., (2010) under the peer and self-assessment teachers need to support and create avenues such as teacher: (i) plan peer and self-assessment opportunities through pair and share opportunities, (ii) explain the intended learning outcome behind each tasks, (iii) provide criteria to assess work, (iv) train learner to asses work of peers and their own work, (v) use appropriate language, (vi) discuss and reflect on problem solving strategies and evaluating approaches, (vii) constantly encourage learner self-reflection on learning, (viii) guide learner to identify their next steps, (ix) provide examples of work that do/do not meet the criteria.

Although the importance of peer and self-assessment has been recognized worldwide, it would be inappropriate to assume that peer and self-assessment always bring significant impact. According to Bearman and Ajjawi (2018) peer and self-assessment is extremely difficult to practice. Peer and self-assessment are non-neutral and non-transparent that requires continual reflection. Crossouard (2012) argue that formative assessment is meaningful if there is a formative assessment culture in the school. Under such circumstances, teacher and student become proficient in evaluative judgment (Tai et al., 2018). The teacher and students seek each other's understanding in teaching and learning process (Nishizuka, 2022). Teacher makes assessment a learning subject to reflect on curriculum, educational goals, pedagogy and assessment (Birenbaum, 2014) as cited in (Nishizuka, 2022).

Birenbaum (2014 as cited in Nishizuka, 2022) mention that formative assessment culture is complex. It comprises teacher professional learning and classroom learning. According to Absolum et al. (2009) teacher competency plays a crucial role in peer and self-assessment. The competent teacher understands and facilitate student learning. The students become efficient, motivated, and responsible for their progress. Formative assessment adjust teaching and learning to suit the realities of student learning.

Bennett (2011) argues that the dominance of summative assessments such as test and exams increases the authority to weight tests and exams to judge student performance and achievements. Teachers are often found working under pressure to ensure student success in tests and examinations. Thus, the objective and contents of formative assessment might get diluted and delegitimized and cannot engage in holistic development of students (James, 2017). The trust between teacher and student is crucial in formative assessment. The lack of mutual respect and trust between teacher and

student can weaken the significance of feedback (Cowie, 2005).

Nishizuka (2022, p.54) on the study from Assessment for Learning to Assessment for Expansion: Proposing a New Paradigm of Assessment as a Sociocultural Practice found that in Japan, teachers do not have adequate time for formative assessment. Aside from teaching, they are responsible for lunch, cleaning, after-school club activities, and many other school duties, which prevents them from having substantial time to work with their students and often causes mental illness and *karoshi* (death by overwork). To conduct a formative assessment in such situations, policymakers must fundamentally revise the school's administrative structure and reduce and distribute the amount and content of work per teacher. However, the efforts of individual teacher play a crucial role in formative assessment such as peer and self-assessment. To implement peer and self-assessment sustainably, school-based professional development needs to be robust so that teachers can help each other in assessment and building cohesion (Bond et al., 2020).

Situational Analysis

Poor performance of students in Economics in the Bhutan Higher Secondary Education Certificate examination is a serious concern for teachers of Economics (Dorji, 2021; Dorji, 2019). This poor performance has forced students to opt for other optional subjects such as Media Studies, Environmental Science, and Agricultural Studies. Students find easier to comprehend and score good marks in these optional subjects although these subjects have poor ability rating for higher education admission in the colleges in Bhutan. Some schools have stopped offering economics at all because students' low scores affect the average (Dorji, 2021; Rinzin, 2019) and ranking of the schools. The MoE Notification/ Circular No. MoE/DCPD/SS-Eco (16) 2021-2022 (Subject: Economics to be a mandatory subject from 2023 Academic Year), dated September 25, 2022, notified all schools that economics will be a mandatory subject for classes IX to XII from the academic year 2023.

As an Economics teacher, my teaching-learning process was more of teacher centered approach with a concentration on covering the syllabus. Students were often engaged in homework and writing responses to questions and learning activity given in the textbook. I often use unit tests and unannounced class tests to find out the learning level of students. I have seen that these assessment practices do not impact much on students' learning progress let alone bringing improvement scores in the tests. Thus, I realized that I need to revisit my assessment practices to enhance student learning. My motivation to review the assessment practice is as a result of the shift towards competency-based assessment at the national level.

The Bhutan Professional Standards for Teachers, 2019 entrusts the use of formative assessment strategies by teachers. In 2021, the Ministry of Education replaced the summative

assessment for Pre-Primary to class III with pure formative assessment to assess students. An individual student portfolio containing learning progress, work sample, personal traits, and intervention are maintained by teachers to evaluate students' learning and progress (Ministry of Education, 2020b). Therefore, there is already a better understanding of the use of formative assessment to drive learning in students.

The development of effective peer and self-assessment can take time and effort. It is to fill such a gap in Bhutanese school that the current study intends to explore academic performance and student perceptions of the ways and means through which self and peer assessment can help support and enhance learning. This action research can provide evidence in terms of peer and self-assessments. This action research uses Peer and Self-Assessment strategies to enhance learning, empower students to take ownership of learning, enhance collaborative approach for mutual support and self-reflection in class XI students of Dechencholing Higher Secondary School. Peer assessment activities bind students together into a learning community make a lifelong learner. Peer and Self-Assessments have emerged as formative assessment for teaching-learning process in many other countries as it empowers students' autonomous lifelong learning (NCERT, n.d.) and not just learn to answer questions. Students are central in both peer and self- assessment.

Objective

Through this action research, I want to understand the use of Peer and Self-Assessment strategies in promoting learning through a two-cycle practice of the use of these assessment strategies in teaching and learning Class XI Economics in Dechencholing Higher Secondary School. Specifically, I want to achieve the following objectives:

1. enhance my understanding of the use Peer and Self-Assessment strategies to support learning Economics;

2. use Peer and Self-Assessment strategies with class XI Economics students;

3. improve my practice of the use of Peer and Self-Assessment strategies in enhancing students' learning

4. surface challenges involved in using the peer and self-assessment in the Bhutanese classroom.

Research Question

Can the use of Peer and Self-Assessment strategies improve learning of Economics among class XI students?

Competence

This action research is the collaborative effort of all Economics teachers of Dechencholing Higher

Secondary School. The teachers attended a three-day workshop on action research organized by the school and supported technically by the then Royal Education Council and the Thimphu Thromde Education Sector in 2019. The researchers will be referring the 'Guide to Action Research: Enhancing Professional Practice of Teachers in Bhutan' by Royal Education Council in 2019 to carry out this action research.

Methods

The action research is exploratory in nature and used mixed method approach through use of an aptitude test, journaling and focus group discussion. The data were collected through pretest and post-test through the use of aptitude test towards peer and self-assessment strategies. In the duration of three weeks, the interventions were implemented twice, each cycle well integrated with reflection on the success and challenges of the peer and self-assessment strategies used.

Population and sample

All 80 students of class XI Commerce and XI Arts in Dechencholing HSS under Thimphu Thromde participated in the action research.

Data Collection Tools

i. Pretest and Posttest

Aptitude test

After the implementation of the three -week intervention program, aptitude test was conducted on June 17, 2022 to evaluate the effects of the interventions. The aptitude test consists of 5-Point Likert Scale (5=Strongly Agree, 4=Agree, 3=Neutral, 2= Strongly Disagree, 1= Disagree) administered to each student.

Intervention

Informed by the literature review, a mix of peer and self-assessment strategies such as

i) observation and feedback,

ii) discussion using relevant Round Robin, RoundTable, Think Pair Share,

iii) anonymous feedback,

iv) sharing with another pair, and

v) journaling was used with students for three weeks.

i. Economics lesson

Economics lessons marked with tasks and activities were taught and learned using the aforementioned peer and self-assessment strategies during the Economics period for a stipulated duration of 50 minutes from Monday to Friday.

ii. Journaling

A record of the peer and self-assessment strategies used in each 50- minute lesson was recorded in the form of a journal. According to the Choeda et al. (2018) journaling serves as an event reminder during the analytical and evaluative phases of action research. Students' journals were reviewed to understand their experience and accordingly the upcoming peer and self-assessment strategies were planned and implemented. Journaling helped the researchers to engage in reflective thinking and generate further questions (Bybee, et al., 2008) based on the review of students' journal.

iii. Focus Group Discussion (FGD)

Three FGD were held with randomly selected students in groups of five students each for both class XI Commerce and XI Arts. The FGD helped understand the impact of the peer and self-assessment strategies in improving students' attitude towards learning Economics. The FGD also revealed the effectiveness of the strategies used during the three-week intervention strategies.

Data Analysis

A descriptive analysis of the data collected through aptitude tests 1 were carried out using Microsoft Excel for frequencies and percentages and comparison of results for effectiveness of the intervention strategies. The results are presented in the form of tables and figures. Qualitative data collected through journaling and FGD were analyzed by using coding to identify themes and subthemes. The findings were presented in the form of descriptions. To authenticate the results and findings the data collected through pretest and post-test, journaling and FGD were triangulated. Refection was carried throughout the two cycles of the implementation of the intervention strategies. The reflection process was useful in strengthening the understanding and use of the peer and self-assessment strategies employed.

Ethical Clearance

Ethical Clearance was sought from the school management. Students of Class XI Commerce and XI Arts were briefed on the Ethics and Integrity of the Action Research and were assured of no obligation to be part of the research or of any implication in case some of them did not want to participate. All students agreed to be part of the action research.

Findings

According to Dorji's (2020) study, there is an absence of authentic assessment in the Bhutanese secondary education. Peer and self- assessments and other forms of formative assessments are rarely practiced. The assessment was used directly for the promotion of students to higher classes. The students' journals revealed that the students were not aware of peer and self-assessment. On further probing, only 3 percent of the students shared that only one teacher in their past middle secondary school gave task to carry out self-correction with limited guidance, instruction and rubrics.

After the intervention programme, the total mean for all items in the aptitude test was 3.8 out

of 5 as depicted in Table 1. Most of the student participants chose 'agree' for almost all the items.

Table 1 *Summary of Aptitude Test*

SN	Item	Mean	SD	Rating	%
1	I know what peer assessment is.	3.6	1.2	Agree	71
2	I know what self-assessment is.	3.6	1.2	Agree	71
3	I know how to carry out peer assessment.	3.6	1.1	Agree	72
4	I know how to carry out self-assessment.	3.6	1.2	Agree	71
5	I have experience of using peer assessment.	3.8	1	Agree	76
6	I have experience of using self-assessment.	3.7	1	Agree	74
7	I am honest when I use self-assessment.	3.8	1.2	Agree	77
8	I am honest when I use peer assessment to assess peers.	4.4	0.6	Strongly Agree	80
9	Self-assessment is helpful when there is a criteria/ rubric.	4.1	0.9	Strongly Agree	82
10	Peer assessment is easy to carry out when there is a criteria/ rubric.	4.2	0.8	Strongly Agree	84
11	Self and peer assessments help me become responsible for my learning and that of my peers.	3.5	1.2	Agree	71
12	I prefer self and peer assessment to teacher assessment.	3.6	1.0	Agree	72
13	Through self and peer assessments I have become more reflective of my learning.	3.9	0.8	Agree	78
	Total Mean for all items	3.8	1.0	Agree	75.3

While discussing the peer and self-assessment criteria/rubrics with students during the FGD, all student participants shared that it is easy to carry peer and self-assessment when there is a criteria/ rubric. However, students were often unfamiliar with marking criteria. On further probing, students preferred verbal feedback on peer assessment. The verbal feedback works better than written feedback. Evaluation and suggestion are often given in verbal according to the students' journal.

According to Race (2010) when students used peer and self-assessment criteria framed by themselves, students take ownership of the need to learn and ownership would be at its best.

Peer and self-assessments are useful during lesson revisions to target improvement in student learning. Students become lifelong learner in assessing and providing feedback to others, and also equips them with necessary skills for peer and self-assessment. The FGD revealed that peer and self-assessment provide an avenue and opportunities to engage more, and help each other on the homework and classwork. After the peer and self-assessment, students gained more knowledge about the concepts or the lesson. According to FGD, student participants shared that the peer and self-assessment promote the sense of ownership and responsibility towards their own learning. With responsibility, learning is enhanced and students become more enthusiastic about the learning.

The peer assessment is considered as a valuable opportunity and helped the students to identify their errors from different lens. One student said, "Before I used to think that my assignment or homework were perfect and right. However, after peer assessment, I found my peer gave constructive feedback on my work. It clarifies doubts for me that I was not sure about it". The peer comments could pinpoint unclear parts in the question and answer. Another student remarked that, "even though I do not completely understand the economic concept discussed in the classroom. However, during the peer and self- assessment, I could use others feedbacks, suggestion and explanation to understand economic concept.

The journaling revealed that peer and self-assessment helped students learn better and in return it helped students to evaluate their homework and assignment. The requirement, expectation and evaluative skills are needed to address the learning gaps.

After the peer assessment, students find easier to identify their strengths and weaknesses in their own task and can make necessary changes. Some of the observations in the journal were that peer and self-assessment allowed students to know their strengths and weaknesses. Three student participants said "If we miss answer or discussion in the task, we would go back to our work and revise it again".

During FGD, while one student participant said that "I know my strength and weakness during the peer and self-assessment" two other students also repeated to the same effect. One student said, "I am embarrassed to ask questions or clarify doubts or get help from the teacher. During peer and self-assessment, I try to clarify doubts with peers. As a result, I become more critical and active." After the peer and self-assessment, some students are found more critical of the work than their teacher. One student participant shared that peer assessment helped them in promoting collaboration. Collaboration benefits all students, as well as supports all peers in their learning. According to my critical friend, some students take more responsibility for their own learning and also for the learning

of peers. With learning responsibility, students become active and thus prepare to become a lifelong learner. It also provides a better avenue for understanding and practice economics content, concepts and skills.

Beside the advantages, peer and self-assessment has number of issues. During FGD, student participants shared that many students have limited ability and confidence to assess their peer's tasks and they fear about peer criticism. One student shared that, "I face difficulty to evaluate my peer work effectively. Sometime my feedback was damaging". Two students said that good peer relationship and friendlier peer provide outstanding feedback. Students are not skilled enough to evaluate peer tasks. The absence of teacher input to the evaluation process lead to misinformation about peer and self-assessment.

The critical friend and researcher observed that only few students were internally inconsistent and lenient. Such students believe that the assessment is the job of the teacher and fail to use feedback. Some students did not take assessment process seriously. During FGD, one student complained that peer and self-assessment were tiring as it required the students to think and make good judgments. There were also reported by a few students of how some student markers were unfair and inaccurate.

Reflection

While using the peer and self-assessment a teacher needs to model the assessment process and explain the purpose. I demonstrated how to give constructive and actionable feedback and comments both verbally and through markings. I showed a few examples of work from unknown students and sources. I noticed that this allowed the students to get accustomed to the process before they were assigned to evaluate and comment on the works of their classmates. I observed that by showing examples of work without or with criteria can help students understand fully what is required and the different approaches of achieving success. The whole class marking was used for discussion and sharing.

Critical friends and I observed that the peer and self-assessment required time and effort. Initially, students faced difficulty while some were bored, and others demanded more time. Once embedded into learning, peer and self-assessments motivate students to move forward in learning. After peer and self-assessment, students needed to be given sufficient opportunity and time to make improvements. As the intervention progressed, students-initiated efforts to acquire knowledge and skill without relying much on teachers and peers.

It was observed that peer assessment should be introduced early for students to get used to and understand the purpose and benefits fully. When students were comfortable with the peer assessment purpose and process, then the teacher and students could move to using self-assessment. Having assessed the peers' work, students often find it easier to identify their weaknesses, and make

improvements. Some students talk to one another, discuss over their works to make changes and improvement in their respective works. I also found that using peer and self-assessment saves time for the teacher in carrying out assessment of students' works. Students were able to provide feedback that their classmates found useful in improving their work. In many cases marking accuracy was often questioned. This however should not be an issue as students can request the teacher if they are not happy with the marking. The use of rubrics and other guidelines should also be useful to minimize discrepancies with peer and self-assessment.

I doubt whether results from peer and self-assessment could be used for important decision makings such as certification, pass/fail, or placement purposes. Under such mechanism collaboration with peers, feedback, a supportive learning environment is required. The desire to seek feedback depend on the supportive learning environment, academic culture and the ability of the student to collaborate and support each other. In this Action Research, peer and self-assessment was prepared and implemented as formative assessment to enhance learning and not to grade. There was no grade involved in this process. As a result, many students were found less motivated to learn and complete their task as they were not graded.

There is limited peer feedback in the student note books, except for 'very good' and 'excellent'. Some students were reported that peer feedback is not received positively by peers. Sometimes it created misunderstanding and became too personal. Students compared their tasks with that of others and became demotivated. There were also cases, where a student got a lot of feedback but failed to incorporate in the learning process. Many students did not seem to take notice of the peer feedback and made much less use of it while some made good use of the feedback they received. The language proficiency, lack of training in peer and self-assessment was the main barrier on the accuracy of peer and self-assessment. The students seem to value instant oral feedback. Awareness and enough practice in the peer and self-assessment would help students make better reviews of their peers and self.

Other potential challenges to the successful implementation of peer and self-assessment were time constraints, lack of confidence to assess accurately. On occasional instances, some students fail to return the reviewed task by the specified timeline due to unavoidable circumstances, or where students were absent during the instruction hours. The applying of peer and self-assessment in complex problem-solving is more challenging for the students.

Peer and self-assessment would be easier with the use of technology in the classroom. However, due to limited technology resources in school, the use of technology was limited. Technology not only include the use of computer and phone, but it also includes a variety of resources- audio visual, video clips, TV programme, machine and equipment.

Therefore, as a researcher, I felt that it is important that students understand that learning journey is different for different students. It is also important for students to admit their weakness without risk to their self-esteem. According to Topping *et al., (*2000) peer assessment is an arrangement for peers to consider the level, value, worth, quality or successfulness of the products or outcomes of learning of others of similar status. Sometime peer and self-assessment in larger class size led to poor planning and classroom management.

However, I would like to share my experience of using peer and self-assessment with faculty and staff. In the future, I want to involve parents in assessment and reporting. Parents and students are essential partners in the assessment process. Change involves challenges, and the changes in the assessment and reporting process are no exception (Walsh, n.d).

Discussion

Learning and development are constantly change. As a result, teacher must stay current in the area of assessment. The Action Research helped me to understand that assessment is the engine that drives learning process and provides opportunities for teachers and students to assess their growth and inform the learning experience.

The assessment task is to create a system that usefully and fairly assesses what we care about and that does not distort the process of learning Ongoing assessment that occurs in the learning process can provide fair, accurate and representative picture of student's abilities and progress (Walsh, n.d). I believe assessment and reporting should be accurate, up-to-date without errors. However, since I had to carry out peer and self- assessment for *80 students (XI Commerce and XI Arts)*, I found it immensely challenging. Therefore, I could not conduct peer and self-assessment in the other three classes of IXA, IXB and IXC where each class consisted of more than 40 students.

While formative assessment has a positive impact on students' learning if properly implemented, teacher workload owing to big class size and lack of time are often mentioned by teachers as the barrier in practicing formative assessment in the classrooms. Besides, a vast syllabus that has to be covered within the stipulated time hinders the practice of formative assessment. All these constraints tend to make the teaching and learning process teacher-centered and implementing formative assessment is a challenge. The overall challenge is briefly captured within the following categories:

a. Teachers workload

Since most of the time teachers experience heavy workload that includes teaching, planning the lessons, correcting students' work and executing other managerial and administrative tasks that the school assigns, it leaves limited time for teachers to plan and carry our formative assessment.

I observed that focusing on formative assessment would be a secondary option because we have to

complete the syllabus. Secondly, the effectiveness of assessment is lost. I teach five sections each with 40-45 students. In a week, I am expected to correct close to 200 notebooks. It is not possible for me to provide feedback, make suggestions and check if the notes maintained are purposeful for the students.

b. Large class size

Large number of students in the class hampers implementing formative assessment. Formative assessment is carried on during the instructional period to provide feedback to student and teachers on how well the concepts is being taught and learned. However, in our education system, we have a huge class, a large number of students in urban areas. I get four periods a day. So, I need to take four sections, make it nineteen periods (excluding club, teacher on duty, substitution class, mentor mentee session and remedial class), minimum, in one section there are more than forty students, it becomes two thundered in total, and then to cater to their needs is difficult.

There is a ratio of 1:40 in the government or public school on the minimum scale. So, 1:40, one teacher, forty feedbacks which has to be prompt and immediate, that might be challenging for teachers. In this context, a higher student to teacher ratio means that the teachers have higher workloads, hence lower availability of teacher service to students and vice versa. The optimal class size which according to Kleschnick (2018 as cited in Dorji, 2022) is eighteen.

Bhutanese education places a strong emphasis on exams or test score, with final test score carrying significant weight. Students were required to pass through four public board examination (class VI, VIII, X and XII) during the entire period of school education. Many schools offer remedial and coaching classes to enhance test scores. In urban areas many students opt for additional tuition outside regular school hours, including weekends. As long as the examination or test score result was stressed at every opportunity, Peer and self-assessment has limited room in reality for negotiation and practice in the teaching and learning process. While teachers are expected to practice formative assessment in the classroom, summative assessment is still predominant in Bhutanese schools. I observed that formative assessment does not motivate students to do tasks that are not graded as they are accustomed to graded tasks.

The formative assessment implementation in Bhutan is attributed to external factors such as student-to-teacher ratios, class sizes, and teacher workloads, which make catering to each student's needs a challenge because it adds work to already heavy workloads (Dorji, 2022).

Conclusion

Based on the analysis of the findings and reflection of the action research, I conclude that peer and self-assessment is one way to assess the progress of students' learning. It provides opportunity for students to assess their peers and their own performance. It equips students to be an autonomous and

reflective learner who can track and assess peers and their own development. The insights I have gained from this research encourages me to include peer and self-assessment in teaching Economics. While using the peer and self-assessment, I demonstrated how to give constructive and actionable feedbacks. Peer and self-assessment require a classroom culture where errors and constructive feedback are valued and encouraged. The students act as critical friends, critiquing the work of each other purposefully. The student also supports and challenges peers and facilitates their future success. It was important for the teacher to show the students that mistakes can happen and can be corrected too. It is also crucial for students to understand what will be examined and how it will be assessed. By carefully observing and providing students with constructive feedback, teachers can play a significant part in their academic success. For the students who need it most, teachers must give the required scaffolding. Monitoring and assessing are quite challenging for teachers due to limited availability of resources, increased work load, larger class size, syllabus coverage, test and existence of exam-oriented curriculum, heavy teaching session, student ability level and interest. Too often, examinations are used as assessment to assess the progress of a student. However, it would be important if teachers place peer and self-assessment in learning process for holistic learning.

Limitation of the AR

Since the intervention strategies was only for three weeks with small number of participants in one higher secondary school, the Action Research could not provide better understanding on peer and self-assessment. The effective use of peer and self-assessment take time and effort.

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