

A Critical Analysis of Student's Self-Assessment and Teacher's Assessment

Nwabueze Godfrey Nneji, Federal College of Education, Nigeria

The European Conference on Education 2015
Official Conference Proceedings

Abstract

This study addresses the mistrust and suspicion that used to follow teachers' assessment of students' class work and examinations. It sought to find out the level of agreement or otherwise between students' assessment of their class work and the assessment given by the teacher. The focus is to provide evidence that can reduce the mistrust with which students view teachers' assessment of their work. Thirty students in engineering drawing course were asked to produce orthographic views of a rectangular block that has a through hole. A marking guide and a model answer were produced by the teacher. Students were informed that their work will be blindly assessed by them, their peers and the teacher. They were taken through the marking guide and the model answer. Each student was asked to do a blind assessment of his/her work and that of the student sitting in front of him or her. They were asked to turn in the scores they gave themselves and the one they gave to their peer. Finally the work of every student was assessed by the teacher. Both teacher and students reviewed all the scores and the review showed that students' scores of their works were in most instances lower than those given by their peers and/or the teacher. From this outcome, students commented that they now appreciate that the assessment of their work is guided by what is expected of them and not what the teacher feels about them. Consequently their trust on teachers' assessment of their work got a boost.

iafor

The International Academic Forum
www.iafor.or

Introduction

Assessment is a process of gathering information from a variety of sources that accurately reflects how well a student is achieving the objectives of a curriculum. One type of assessment that has been shown to raise students' achievement significantly is student self-assessment (Black and William 1998, Chappuis and Stiggins 2002, Rolheiser and Rose 2001, White and Frederiksen 1998). Self-assessment requires students to reflect on their own work and judge how well they have performed in relation to the assessment criteria. The focus is not necessarily on having students generate their own grades, but rather providing opportunities for them to be able to identify what constitutes a good (or poor!) piece of work. Some degree of student involvement in the development and comprehension of assessment criteria is therefore an important component of self-assessment¹.

Traditionally, assessment of students' class works and examinations has been the prerogatives of the teacher. One of the capacities a teacher needs to possess is ability to use relevant instruments to adequately assess students. Teachers have time without number receive unfavourable reaction from their assessment of students' works from students and sometimes from parents. Consequently, students show some resentment and take teachers' assessment with mistrust and suspicion. This project set out to broaden students' outlook on assessment so as to minimize their mistrust on teachers' assessment. What the study has done is to perform multi-dimensional analysis of students' scores from a class work to compare students' self-scores with those from the teacher. This brought students into assessment task and created an opportunity for them to review and modify their impression on teachers' assessment of their work.

Self-assessment and students' performance

Bloom (1974) is of the opinion that involving students in evaluation of performance can be used to introduces students to the complexities of performance evaluation, encourages students to evaluate their own actions and efforts, and to encourage students to become more actively involved in the teaching and learning process. James Jesseca (2015) support this position in their submissions that student self-assessment has the promise to improve student motivation and engagement and when correctly implemented, promote intrinsic motivation, internally controlled effort, a mastery goal orientation and more meaningful learning. Thus it helps students to guide their own learning and internalize the criteria for judging success. When made using standard criteria, the judgement gives students a meaningful idea of what they know and what they will need to learn (Bruce 2001). And according to Rolheiser and Ross (2001), students who are taught self-evaluation skills are more likely to persist on difficult tasks, be more confident about their ability, and take greater responsibility for their work. For Wright (1962), the opinion a student has of his/her abilities serves as a controlling factor on how he/she behaves, hence what he/she learns and how well he/she learns it.

Students do not learn easily that which is inconsistent with the opinion of themselves. When students are involved in recording their own achievements, their level of self-awareness and independence is increased. They can negotiate their own assessment and future learning with the teacher and this gives them the confidence that they have control over achievement and records (Gripps and Stobert 1993). Students according

to Chermesh and Tzelgore (1979) are the closest role complement of the teacher; they are natural reference group for feedback purposes. The teacher therefore should make reference to them when he/she wants to find out how much they have learned. To strengthen the debate on involvement of students in their own assessment, Erickson and Wantling (1976) maintain that students obtain self-diagnosis of their abilities when they perform self-assessment and this enhances their performances.

Involvement of students in evaluation is relatively an innovative practice in evaluation but according to Donald (1982), student self-evaluation is capable of offering direction for future and spells out the criteria for success based on understanding that evaluation affect the amount and kind of learning that takes place. In the opinion of Nneji (1998), involving students in self-assessment democratizes education and opens up the act of testing and measurement which hitherto looks like a blind game. This has made the assessee not to trust the work of the assessor. When students are involved in assessment of their works, they develop ability to form judgement and are therefore in a better position to improve their work since they are aware of what can be done to achieve quality and proficiency. Self-assessment makes it possible for students to analyse their work against comparative work standards. In this way they can show a better appreciation of the scores given by the teacher. It is against this background that this project is undertaken.

To achieve the objectives of this project, the following steps were taken.

1. Discussions on students' frequent resentment on teachers' assessment of their class work were held. These students were in their final year of a three year teacher education program that leads to the award of Nigerian Certificate in Education (N.C.E) and engineering drawing is one of their course offerings. The summary of their submission was that they were not convinced that teachers has been objective in his assessment of their work.
2. An agreement was reached with them that they will take part in the assessment of their next class work. They were assured that they would be put through the marking guide before they conduct the self- assessment.
3. During the next class, they were given a take-away assignment to draw in the first angle projection, the orthographic views of a square block with a round through hole shown in figure 1.

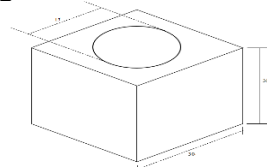


Fig 1. An isometric square with a round through hole.

4. A marking scheme and a model answer for the assignment were prepared. These are shown in figure 2 and table 1 respectively.

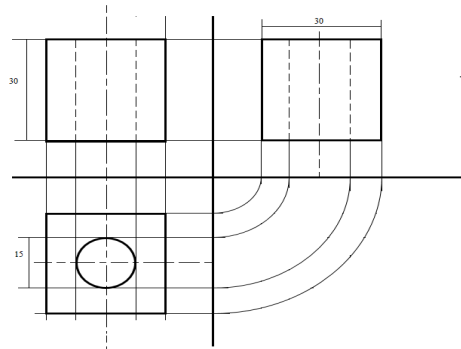


Fig 2. Orthographic views of fig 1 in first angle projection (model answer)

Table 1. Marking guide

Attributes	Maxmarks
Angle of projection i.e first angle	1
Dimension (as given in the figure and shown on at least one view)	2
Complete plan	3
Complete front elevation	3
Complete side elevation	3
Lines- from front elevation to plan and side elevation, and from plan to side elevation	2
Types of lines-outline and projection lines	2
Neatness	1
Balance	1
Title block with complete information	2
Total	20

5. On the assessment day, students were taken through both the marking scheme and the model answer. They asked some questions and got the necessary clarifications.
6. They used the marking scheme and the model answer to assess their work blindly i.e without writing the marks on the drawing but in another paper.
7. Each student was asked to assess blindly, the drawing of the student sitting in front of him or her.
8. At the end of the students' marking the teacher collected all the students' work and used the marking scheme to assess them.
9. The students' self-assessment scores, the peer assessment scores and the teacher's assessment scores for each student were assembled and analysed as shown in table2.

Table 2. Analysis of students', peers' and teacher's assessments of students' performance.

Student No	Self-assessment scores	Peer assessment scores	Teacher's assessment scores	Teacher's score minus Self score	Teacher's score minus Peer scores	Peer minus Self scores
1	12	12	12	0	0	0

2	14	12	14	0	+2	-2
3	16	12	16	0	+4	-4
4	10	16	16	+6	0	+6
5	8	12	14	+6	+2	+4
6	18	16	12	-6	-4	-2
7	14	10	12	-2	+2	-4
8	12	12	14	+2	+2	0
9	10	10	14	+4	+4	-2
10	12	10	14	+2	+4	2
11	12	16	14	+2	-2	+4
12	12	14	16	+4	+2	+2
13	14	14	18	+4	+4	0
14	8	10	10	+2	0	+2
15	10	12	12	+2	0	+2
16	8	8	8	0	0	0
17	16	14	18	+2	+4	-2
18	18	14	16	-2	+2	-4
19	12	14	16	+4	+2	+2
20	12	16	16	+4	0	+4
21	16	16	14	-2	-2	0
22	10	10	14	+4	+4	0
23	10	12	16	+6	+4	+2
24	12	10	14	+2	+4	-2
25	8	8	10	+2	+2	0
26	7	7	7	0	0	0
27	12	14	14	+2	0	+2
28	12	16	16	+4	0	+4
29	12	12	16	+4	+4	0
30	14	10	14	0	+4	-4

10. A plus sign in the difference between the teachers assessment and either self or peer assessment implies that teacher's assessment is higher while a minus sign implies that teacher's assessment is lower. A zero means that all the three assessors spoke with one voice.
11. Students and teacher gave equal assessment in six out of the thirty cases (20%) while the teacher awarded higher scores than the students awarded themselves in twenty (67%) out of the thirty cases. It is only in four cases that the students out-scored the teacher in self -assessment.
12. Ordinarily, one would expect that the students would be generous with awarding scores to themselves. The outcome here can be explained in the light of some issues. It is not unlikely that the students were yet to internalize both the concept of self-assessment and the practice of it. Before this time also, they had been exposed to the rudiments of measurement and evaluation and had even participated in practice teaching during which they assessed the students they taught. Their being 'stingy' with scores could also be out of fear of the teacher because they could be suspicious with the teacher's intention since self-assessment has not been done by them before.
13. The scores awarded by students by their peers and the teachers score did not fare much better. It is in nine cases (30%) that an agreement between peer

assessment and teacher assessment agree and this number is three above what happened between self -assessment and teacher assessment. Under this category, teacher's assessment is higher in 16 cases (53%). Sixteen students got higher scores from the teacher than they got from their peers.

14. With regard to self- assessment and peer assessment, there is an agreement in nine (30%) cases while eleven cases (37%) are in favour of peer assessment. In all these, student self-assessment yielded lower scores than either teacher assessment or peer assessment.

Discussions and conclusion

A post assessment session was held with the students on the result of the analysis to get further insight on their views on self-assessment. First they expressed excitement on the exercise but a great surprise on the outcomes. They were greatly surprised that the scores awarded by the teacher were in most cases higher than their self- scores or peer scores.

The summary of what they could make of the assessment outcome is that the novelty of this approach in assessment may have affected the way they carried out the assessment.

It can then be deduced that involving students in assessment of their performances has a positive potential of exposing them to the rudiments of assessment thereby empowering them to appreciate what teachers go through in passing judgement on their performances. There is hope that having been exposed to assessment exercises, they will improve on the level of trust they have on teacher's assessment.

Consequently, they will in future exercise focus on what accounts for good performance and strive hard to exhibit them.

References

Black, P. and William, D. 1998. "Assessment and classroom learning." *Assessment in education*. 5 (1)

Bloom, T. K. (1974). "Peer evaluation-A strategy for student involvement." *Man/society/technology*. (13) 5

Bruce, L. B. (2001). "Student self-assessment: Making standard come alive." *Classroom leadership* (5) 1. Retrieved February 25, 2015 from [http://www.ascd.org/portal/site/ascd/template](http://www.ascd.org/portal/site/ascd/template.MAXIMIZE/menuitem.29d4046bbea38f2eb).

Chappuis, S. Stiggins, R. J (2002). "Classroom assessment for learning". *Educational leadership*. 60 (1)

Chermesh, R and Tzeigov, J (1979). "The college instructor as a leader: some theoretical derivation from a generalization of a causal model on students' evaluation of their instructors." *Journal of education research* (73) 2

Donald, J. G (1982). "A critical appraisal of the state of evaluation in higher education in Canada." *Assessment of evaluation in high education*. (73) 2

Erickson, R. C and Wentling, T. L (1976). *Measuring students growth*. Griffon Press. Illinions

Gipps, C and Stobert, G. (1993). *Assessment: A teachers guide to the issue*. Griffon Perss. Illinions

Nneji, G. N (1998). "Student self-assessment: An issue in students' performances in technology education." *Technology education review*. (1) 2

Rolheiser, C. and Ross, J. A (2001). "Student self-evaluation: What research says and what practice shows." "Retrieved February 25, 2015, from http://www.cdi.org/resource-library/article/self_eva.php?type=subject&id=4

White, B. Y and Frederiksen, J. R.(1998). "Inquiry, modeling and metacognition: making science accessible to all students". *Cognition and Instruction*; (16) 1 Wright, L. S. (1962). "Student self-evaluation as a technique for quality instruction." Paper presented at the 24th Annual Convention of American Industrial Art Association, Pitisburgh, Pennsylvania. April

Contact email: gneji@yahoo.com