

SUSTAINING A VIABLE EDUCATION SYSTEM IN NIGERIA: THE ROLE OF FORMATIVE ASSESSMENT AND FEEDBACK

*Oluwayemisi Damilola Akomolafe

Paper Received: 04.08.2021 / Paper Accepted: 14.09.2021 / Paper Published: 16.09.2021

Corresponding Author: Oluwayemisi Damilola Akomolafe; Email: oluwayemisi.akomolafe@fuoye.edu.ng; doi:10.46360/cosmos.ahc.520212009

Abstract

The paper discussed the role of formative assessment and feedback in the Nigeria education system. First, the approaches to, and the principles of formative assessment were discussed. Second, the types; the importance; the stages, and the features of effective feedback were also highlighted. The paper further concluded that every learning endeavour needs formative assessment and feedback at one point or the other; to ascertain the level of progress made by all involved. Finally, the paper suggested that teachers provide a timely and regular formative assessment, and feedback to students; be professionally trained in the art and science of giving feedback to learners; be provided with formative assessment and feedback tools and officials of the education ministries at the federal, state and local governments, should give the guidelines for formative assessment and feedback of students to teachers and schools, and ensure strict compliance.

Keywords: Education System; Feedback; Formative Assessment; Nigeria.

Introduction

Nigerian education system is administered by the three tiers of government-the federal, the state and the local; with the federal ministry of education in charge of policymaking and quality control of all levels of education: the basic, secondary and tertiary. However, the state and the local government may have a stronger hold on the secondary and the basic respectively. The basic education covers nine years of compulsory (formal) schooling comprising six years of elementary and three years of junior secondary education while the post-basic education consists of three years of senior secondary education.

The tertiary level consists of a university and non-university sector, including monotronics, polytechnics, colleges of education, and universities, providing opportunities for undergraduate, graduate, vocational, and technical education. Usually, the academic year in the Nigerian education system for the basic and secondary levels typically runs from September to July while most universities use a semester system of 18 - 20 weeks. At all the education levels mentioned above, students' learning outcomes need to be assessed and feedback provided for the learners, parents, school owners, teachers, and education policymakers.

Feedback is a potent means through which learning outcomes can be affected either positively or negatively (Hattie & Timperley, 2007). It is conceptualized in this case, as the information or report from teachers, parents, or peers about the general performance of a particular learner, over time; with respect to his or her knowledge, understanding, or achievement on an assigned task.

Winne and Butler (1994, p5740) defined feedback as "information with which a learner can confirm, add to, overwrite, tune, or restructure information in memory, whether that information is domain knowledge, metacognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies". Ambiguous evaluative feedback from the teacher, parents or peers is likely to worsen poor learning, low self-esteem, and low students' achievement (Thompson & Richardson, 2001).

According to Dinham (2008), feedback is the teachers' response to students' attitudes, behaviour, and performance. Brookhart (2008) describes feedback as part of a formative assessment; advising that feedback should not only focus on goal achievement but on learning goals. More so, Irons (2008) defines feedback as the information, process, or activity that improves students' learning and can either be formative or summative. Cornelius-White (2007) defines it as a series of deliberate interventions for enhancing students' cognitive growth and shaping their behaviour. Furthermore, Shute (2008) defines feedback as a communication aimed at improving students learning through amendment of their thinking and behaviour. Generally, feedback can take the form of praise, reward or grade, personalized feedback, and annotated exemplars.

Inappropriate teacher feedback can deter students from learning. For example, when teachers give students praise publicly, some students as mockery or punishment especially if such feedback does not put enough value on achievement (Carroll, Houghton, Durkin & Hattie, 2001; White & Jones, 2000). Feedback at the level of self (including praise) may not be effective in enhancing learning

*Department of Educational Foundations, Faculty of Education, Federal University Oye-Ekiti, Oye, Ekiti State, Nigeria.

(Hattie & Timperley, 2007). Teachers should as much as possible avoid giving negative feedback to learners as it can distract and hamper their success (Fedor, Davis, Maslyn & Mathieson, 2001).

Van-Dijk and Kluger (2000, 2001) in their studies have shown that positive feedback increases motivation (in this case, students' motivation to learning) and it is a stimulus for self-regulation (Mathan & Koedinger, 2005). Similarly, Clariana, Wagner, and Murphy (2000) emphasized the positive effects of immediate feedback, admonishing teachers to avoid delayed feedback of students' learning and outcomes. Furthermore, teachers do misconstrue what feedback entails as they feel that it is more student-oriented than teacher-oriented (Timperley & Wiseman, 2002).

Thus, the feedback has numerous benefits for classroom situations and should be a concern for all. Strategies that reduce the positive effects of feedback on learning have been noted, and it is with students' devotion to the set learning objectives and accomplishments, would make feedback effective (Crocker & Wolfe, 2001). Also, Erturan-Ilker's (2014) study indicated positive feedback increases students' mastery of content taught, performance, and motivation to learn. In the same line, Effective feedback makes a potential difference in students' achievement (Harks, Rakoczy, Hattie, Besser, & Klieme, 2014).

Teacher feedback is a crucial mechanism that provides information and helps in fostering students' achievement goals, competence and could foretell their subsequent performances (Rink & Hall, 2008; Vigoda-Gadot & Angert, 2007; Senko & Harackiewicz, 2005). Feedback helps students know how well they are doing. To be effective, feedback should be purposeful, clear, meaningful, and compatible with students' previous knowledge. It should also be prompt active information processing by students, have low task complexity, relate to specific and clear goals, and provide little threat to the person at the self-level. These criteria underscore the importance of classroom situations that promote peer and self-assessment and allow for learning from mistakes (Hattie & Timperley, 2007).

Formative assessment is an active feedback loop for supporting learning (Black & Wiliam, 2004; Shavelson, 2006). The information gathered through this form of assessment provides opportunities for teachers to make the necessary adjustments with respect to their instruction delivery; leading to students' improved performance. Popham (2008, p.15) defines formative assessment as "a planned process in which teachers or students use assessment-based evidence to adjust what they are currently doing". The basics of the formative

assessment process may include gap identification (where teachers and students work hand in hand to ascertain the goals and learning outcomes, and ways by which they can be actualised); feedback (teachers are informed of students present condition in learning and what next); learning progressions (students learning goals are broken down into small and manageable bits) and student involvement (engaging students in the learning activities).

The purposes of formative assessment are to assist teachers/parents/peers know students' skills and knowledge status; improve instruction; appropriately plan instruction and class activities; and provide timely information on students' learning progress (Ainsworth & Viegut, 2006). Formative assessment can identify student's learning difficulties; making provisions for a strategic improvement of their performance and remediation. Some studies have revealed the significant positive impact of formative assessment on students learning outcomes (Neda & Sayadiyan, 2016; Maleki & Eslami, 2013). Therefore, the intent of this paper is to explore the approaches and principles of formative assessment as well as an overview of feedback in the Nigerian education system.

Approaches to Formative Assessment

- i. Entry and exit slip: this is done either at the beginning or at the close of an instruction. Students are asked what they were taught in the previous class or that which they are being taught. The questions can be differentiated.
- ii. Low-stakes quizzes and polls: these can take the form of in-class games and tools such as flipquiz, plickers, gimkit, flippity etc. they are means by which the teacher can ensure that the students really know what they claim they know. In this stead, teachers are able to determine students learning pace.
- iii. Dipsticks: This entails the teacher observing students' work in class, using a focused observation form.
- iv. Interview assessments: This is a discussion-based approach, where the teacher deeply delves into students' understanding of content.
- v. The art approach: here, the teacher uses photography, visual art, or videography as a means of assessing students.
- vi. Errors/misconceptions: this is when teachers ask students to ascertain what is incorrect or why a concept is difficult for them to understand.
- vii. Self-assessment: teachers use this approach to allow students to find out their strengths and weaknesses.

The Principles of Formative Assessment

As cited in Emeasoba (2016), the principles of formative evaluation are:

- i) It improves students' learning outcomes by measuring the most important and salient learning indicators;
- ii) It is multi-dimensional, integrated and, complex; revealing students' performance over time;
- iii) Assessment should be an integral component of the lesson plan;
- iv) It provides the vital and needed feedback for parents on students' achievement. This can serve remedial purposes;
- v) Good assessment requires clarity of purpose, goals, standards and criteria. Staff, students, parents and the community should all be able to see why assessment is being used, and the reasons for choosing each individual form of assessment in its particular context;
- vi) Good assessment requires a variety of measures. As such, teachers at all levels need to be familiar with a variety of assessment tools so we can match them closely to the type of information we seek;
- vii) Assessment methods used should be valid, reliable and consistent;
- viii) Assessment requires attention to outcomes and processes;
- ix) Assessment works best when it is on-going rather than periodic. Student learning is best fostered when assessment involves a linked series of activities undertaken over time, so that progress is monitored towards the intended course goals and the achievement of relevant standards;
- x) Assessment for improved performance involves regular feedback and reflection. All assessment methods should allow students to receive feedback on their learning and performance so assessment serves as a developmental activity aimed at improving student learning.

Types of Feedback

- i. **Informal feedback:** this is the feedback that is spontaneous. It guides teachers in the daily running and decision-making as per learning.
- ii. **Formal feedback:** this is the feedback that is usually systematic and well planned. It is criteria-oriented and recorded.
- iii. **Formative feedback:** this is the feedback used to monitor students' learning, and for improving teachers instructional strategies. It is given at the beginning or during instruction.
- iv. **Summative feedback:** this feedback is for evaluating students' learning at the end of instruction and is usually compared against a standard.
- v. **Student peer feedback:** this is students giving quality feedback to one another. This helps in enhancing learning experiences.

- vi. **Student self-feedback:** students use feedback to determine the next steps in attaining the set goals.
- vii. **Constructive feedback:** This type of feedback is issue-focused, specific, and based on observations. It could take the form of negative feedback, positive, negative feed-forward, and positive feed-forward.
- viii. **Oral feedback:** this is given during a lesson.
- ix. **Written feedback:** this is the feedback that is given after a task.
- x. **Evaluative feedback:** this is in the form of brief general comments or grades about students' learning but does not give students the information and guidance that can improve their learning.
- xi. **Descriptive feedback:** This is the feedback that provides students the specific, detailed information on how their learning can be improved.

Importance of Feedback in the Nigeria Education System

- i. Feedback keeps both teachers and students on track.
- ii. Feedback solves students' problems of misconceptions or difficulty in understanding the content taught.
- iii. Feedback promotes better teacher-student and student-student relationships.
- iv. Feedback does motivate teachers as well as the students.
- v. Feedback promotes teacher s' personal and professional growth.
- vi. Feedback provides a conducive learning environment.
- vii. Feedback fosters both teachers' and students' appraisal
- viii. Feedback promotes students' effective listening
- ix. Feedback improves teachers' and students' performance in teaching and learning respectively.
- x. Feedback is a tool for continued learning

Stages to Effective Feedback

- i. **Feed-up:** this is the foremost feedback to be given to students which helps them know the intention(s) for learning. It provides answers to students' questions such as: where am I going? What are the goals?
- ii. **Feedback:** this feedback monitors and assesses students' learning progression vis-a-vis the learning intention(s). It answers questions such as: how am I doing? What progress am I making towards achieving the set goals?
- iii. **Feed-forward:** This feedback is about where to next? What tasks are to be undertaken to make better progress? This does lead to students' greater achievement.

Features of an Effective Feedback

For feedback to be viewed as effective, the following features are likely to be a part and parcel of it:

- i. It should be education-oriented: feedback should be mainly centered on students' outcomes from their learning endeavours.
- ii. It should be timely: timeliness of feedback does go a long way in building better confidence and sustaining students' corrected learning measures.
- iii. It should be sensitive to students' individual needs: learning is individualistic; as such, feedback should be directed to suit the peculiarity and personal needs of students.
- iv. It should be a reference of students' particular skill or knowledge: this is majorly attained with the help and use of rubrics.
- v. It is usually written, verbal or non-verbal.
- vi. It should focus on a particular ability or skill at a time.
- vii. It should educate students on how to access one another: this is sometimes called 'peer conferencing'. Teachers should train students on how they can give constructive feedback to each other.
- viii. It should monitor the learning progress of students.
- ix. It should provide true praise: spurious praise by teachers to students will become meaningless with time. Teachers' praise needs to be focused, practical, and directional.
- x. It should be a model or a platform for making examples: this will make students understand the difference between a good performance and a poor one.

Conclusion

Every learning endeavor needs formative assessment and feedback at one point or the other to ascertain the level of progress made by all involved. Formative assessment of learning, along with teachers' effective feedback is a potent tool/process by which the Nigerian education system can be sustainable and viable. As such, the paper suggests that:

- i. Teachers provide a timely and regular formative assessment and feedback to students since it fosters their learning outcomes;
- ii. Teachers should be professionally trained in the art and science of giving feedback to learners;
- iii. Teachers should be provided with formative assessment and feedback tools, for its successful implementation; and
- iv. Officials of the education ministries at the federal, state, and local governments, should give the guidelines for formative assessment and feedback of students to teachers and schools, and ensure strict compliance.

References

1. Ainsworth, L. & Viegut, D., (2006). "Common formative assessments". Thousand Oaks, CA: Corwin Press.
2. Black, P. & Wiliam, D., (2004). "The formative purpose: Assessment must first promote learning", In M. Wilson (Ed.), *Towards coherence between classroom assessment and accountability*. Chicago: University of Chicago Press.
3. Brookhart, S.M., (2008). "How to Give Effective Feedback to Your Students?", Association for and Curriculum Development. Virginia, USA.
4. Carroll, A., Houghton, S., Durkin, K., & Hattie, J., (2001). "Reputation enhancing goals: Integrating reputation enhancement and goal setting theory as an explanation of delinquent involvement". In F. Columbus (Ed.), *Advances in psychology research* (Vol. 4, pp. 101-129). New York: Nova Science.
5. Clariana, R.B., Wagner, D., & Roher Murphy, L.C., (2000). "Applying a connectionist description of feedback timing". *Educational Technology Research and Development*, 48 (3), 5-21.
6. Cornelius-White, J., (2007). "Learner-centered teacher-student relationships are effective: A meta-analysis". *Review of Educational Research*, 77(1), 113-143.
7. Crocker, J. and Wolfe, C.T., (2001). "Contingencies of self-worth". *Psychological Review*, 108(3), 593-623.
8. Dinham, S., (2008). "Powerful teacher Feedback". *Synergy*, 6(4).
9. Emeasoba, N.C., (2016). "Formative Assessment: Improving Teaching And learning Business Education in Nigerian Universities". *Nigerian Journal of Business Education (NIGJBED)*, 3(1), 323-335.
10. Erturan-Ilker, G., (2014). "Effects of feedback on achievement goals and perceived motivational climate in physical education". *Issues in Educational Research*, 24(2), 152-161.
11. Fedor, D.B., Davis, W.D., Maslyn, J.M. and Mathieson, K., (2001). "Performance improvement efforts in response to negative feedback: The roles of source power and recipient self-esteem". *Journal of Management*, 27(1), 79-97.
12. Harks, B., Rakoczy, K., Hattie, J., Besser, M., & Klieme, E., (2014). "The effects of feedback on achievement, interest and self-evaluation: The role of feedback's perceived usefulness". *Educational Psychology*, 34(3), 269-290.
13. Hattie, J., & Timperley H., (2007). "The Power of Feedback". *Review of Educational Research*. 77(1), 81-112. DOI: 10.3102/003465430298487.

14. Irons, A., (2008). "Enhancing learning through formative assessment and feedback". Abbingdon, UK: Routledge.
15. Klein, W.M., (2001). "Post hoc construction of self-performance and other performance in self-serving social comparison". *Society for Personality and Social Psychology*, 27(6), 744-754.
16. Maleki, A., & Eslami, E., (2013). "The effects of Written Corrective Feedback Techniques on EFL Students' Control Over Grammatical Construction of Their Written English". *Theories and Practices of Language Studies*, 3(7).
17. Mathan, S.A. and Koedinger, K.R., (2005). "Fostering the intelligent novice: learning from errors with metacognitive tutoring". *Educational Psychologist*, 40(4), 257-265.
18. Neda, K. and Sima, S., (2016). "Comparative Investigation of the Effects of Immediate and Delayed Error Correction on the Achievement of Male and Female Iranian EFL Learners' Writing Skills". *International Journal of Social Science and Education*, 6, 2016.
19. Popham, W.J., (2008). "Transformative assessment", Alexandria, VA: Association for Supervision and Curriculum Development.
20. Rink, J.E. and Hall, T.J., (2008). "Research on effective teaching in elementary school physical education". *Elementary School Journal*, 108(3), 207-218.
21. Senko, C. and Harackiewicz, J., (2005). "Regulation of achievement goals: The role of competence feedback". *Journal of Educational Psychology*, 97(3), 320-336. <http://dx.doi.org/10.1037/0022-0663.97.3.320>.
22. Shavelson, R.J., (2006). "On the integration of formative assessment in teaching and learning with implications for teacher education", Paper prepared for the Stanford Education Assessment Laboratory and the University of Hawaii Curriculum Research and Development Group.
23. Shute, V.J., (2008). "Focus on formative feedback". *Review of Educational Research*, 78(1), 153-189.
24. Thompson, T., & Richardson, A., (2001). "Self-handicapping status, claimed self-handicaps and reduced practice effort following success and failure feedback". *British Journal of Educational Psychology*, 71, 151-170.
25. Timperley, H.S. and Wiseman, J., (2002). "The sustainability of professional development in literacy", Wellington: New Zealand Ministry of Education.
26. Van-Dijk, D. and Kluger, A.N., (2001). "Goal orientation versus self-regulation: Different labels or different constructs?", Paper presented at the 16th annual convention of the Society for Industrial and Organizational Psychology, San Diego, CA.
27. Vigoda-Gadot, E. & Angert, L., (2007). "Goal setting theory, job feedback, and OCB: Lessons from a longitudinal study". *Basic and Applied Social Psychology*, 29(2), 119-128. <http://dx.doi.org/10.1080/01973530701331536>.
28. White, K.J. and Jones, K., (2000). "Effects of teacher feedback on the reputations and peer perceptions of children with behavior problems". *Journal of Experimental Child Psychology*, 76, 302-326.
29. Winne, P.H. and Butler, D.L., (1994). "Student cognition in learning from teaching", In T. Husen & T. Postlewaite (Eds.), *International Encyclopedia of Education* (2nd ed., pp. 5738-5745), Oxford, UK: Pergamon.