Chapter 5
Formative Assessment Policy and Its Enactment in the Philippines

Patrick Griffin, Louie Cagasan, Esther Care, Alvin Vista and Fe Nava

Abstract In this chapter formative assessment is defined as a process of providing information to teachers to focus instruction on the improvement of student learning outcomes. The Department of Education in the Philippines in 2012 started the implementation of a new curriculum within a new structure which extended the education system from a Grade 1–10 to a K–12 structure to bring it into line with the developed world. A significant part of the curriculum reform is an assessment framework that includes formative approaches to assessment. The goal of the policy on formative assessment is to help teachers recognise relevant intervention practices that will improve student learning outcomes. An observation study of the link between assessment and teaching in a sample of 61 classroom lessons identified baseline practices and ways in which the emerging policy of the Department of Education in the Philippines could be promulgated. The observation study focused on classroom organisation, teacher instructional and assessment strategies, lesson structure, resources used by teachers, and student involvement in class work, as well as both formal and informal assessment practices. The observations were documented in a series of narratives aimed at identifying variation between teachers within grade level and disciplines. It emerged that a lesson structure which lingers from the previous curricular approach may be both the major inhibiting factor regarding formative use of assessment data and the most obvious opportunity for change.

P. Griffin (✉) · E. Care · A. Vista
University of Melbourne, Parkville, Australia
e-mail: p.griffin@unimelb.edu.au

L. Cagasan · F. Nava
University of the Philippines Diliman, Quezon City, Philippines

A. Vista
Australian Council for Educational Research, Camberwell, Australia

D. Laveault and L. Allal (eds.), *Assessment for Learning: Meeting the Challenge of Implementation*, The Enabling Power of Assessment 4,
DOI 10.1007/978-3-319-39211-0_5

5.1 Introduction

The Department of Education of the Government of the Philippines implemented the Basic Education Sector Reform Agenda, known as BESRA, in 2012. In this country of over a hundred million people, any change is momentous. This particular reform is of major importance. It extends the education system from a ten-year to a thirteen-year system, in line with many nations globally and the rest of Asia, where the Philippines is the last country to make the move. It has reviewed and rewritten its curriculum. It has introduced mother tongue instruction in the first 3–4 years of education, revised its sequencing of teaching of mathematics and science in secondary education, and promoted an emphasis on applying understanding and skills rather than on content knowledge accumulation. The logistical, financial, and training implications of these reforms challenge the reformists and the country. The challenges reverberate to the level of the classroom, as will be seen in this analysis of formative assessment approaches in classes in Manila, the capital of the country.

The changes being implemented in the Philippines education system involve, at a minimum, three components. In any education program, there is a need to synchronise activities and philosophies across teaching and learning strategies, assessment and reporting procedures, and curriculum and resourcing (Fig. 5.1). If change is to be introduced at a classroom level, these three components need to be adjusted at a system level, and they need to inform and drive policy change. If all three components are not changed, the chance of introducing sustainable improvements in the classroom is diminished. In the Philippines, the first emphasis in the reform program has been on rewriting the curriculum. This raises immediate issues around its associated component of resourcing. It also raises issues of pedagogy and of assessment in order to ensure that the objectives of the curriculum can be realised.

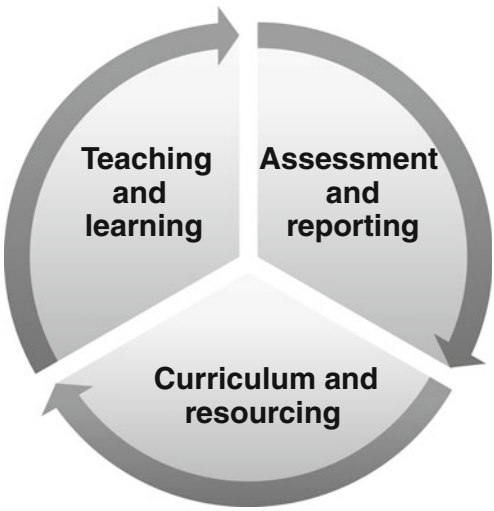

Fig. 5.1 Interdependence of components

Curriculum reform is just one part of the change that is required to remodel an education system. New curriculum documents can contain the best information and a major shift in thinking about learning and development, but the documentation alone cannot manage the shift in schools and classrooms. This is especially true when the shift is about educational philosophy. The goal of the revised education system is to produce 'holistically developed Filipinos who have 21st century skills and are prepared for higher education, middle-level skills development, employment, and entrepreneurship.' The shift is from a teaching and learning emphasis on process and content to an outcomes or skills emphasis. In the Philippines, assessment practices have centred on assignment of scores and letter grades. Unless the curriculum shift is accompanied by an assessment and reporting change that requires skill levels and outcomes to be reported, teachers will interpret the change in idiosyncratic and unintended ways. Reporting grades and scores simply emphasises the importance of grades and scores. By contrast, reporting skills, developmental levels, and social, intellectual, and performance quality growth emphasises that skills are what really matters. The curriculum is described as enriched, learner centred, decongested, seamless, responsive, and technology enhanced. These characteristics and aspirations can encourage teachers to focus on generalised developmental learning for their students. In order to do so, practices in the classroom must reflect the educational philosophy that has coined the terms. These practices include teaching and learning strategies, emphasis on the reporting of skills and development, and use of assessment information to support teaching and learning attuned to the developmental approach.

In the context of education reform in the Philippines, formative assessment is seen as the use by the teacher of assessment to inform teaching interventions. It is well aligned with Black and Wiliam's 2009 statement, in that an assessment functions formatively to 'the extent that evidence about student achievement is elicited, interpreted, and used by teachers, learners, or their peers, to make decisions about the next steps in instruction that are likely to be better, or better founded, than the decisions they would have taken in the absence of the evidence that was elicited' (p. 9). Black and Wiliam's definition of formative assessment contains some important elements. The first is that it is about interpreting the assessment information or evidence to make decisions about the next steps in instruction. It is about informing teaching in order to improve student learning. It does not exclude the teacher encouraging the students to be involved in their own assessment but instead emphasises the responsibility of the teacher to use assessments in many different ways to improve student learning. In many instances the use of a developmental framework of learning can actively encourage students to understand their learning trajectory and become increasingly involved in monitoring their own learning development. However, for most situations the student and teacher need to collaborate in the monitoring process and ultimately the teacher's professional judgment is required. It needs to emphasise *assessment for teaching* (Griffin and Care 2014). Our rationale for describing the formative approach as assessment for teaching is discussed in the following paragraph.

Some of the more recent literature on formative assessment focuses heavily on the use of feedback between teachers and students. Feedback is a part of formative assessment, but the real heart of formative assessment is a teacher's capacity to use the data to make decisions about intervention and the type of feedback that might be given to students to help them learn. Feedback is often regarded as any information given to the student about their current performance and the proposed performance level to which they might aspire. At best, it compares the current performance with a desired performance and as such would be regarded as the heart of a needs assessment in learning and teaching. But pointing out gaps in learning does not help the student improve learning and certainly does not help the teacher improve teaching. Black and Wiliam (1998) started with a definition of assessment itself. They regarded assessment as all activities undertaken by teachers that provide information to be used as feedback to modify teaching and learning activities. 'Such assessment becomes *formative assessment* when the evidence is actually used to adapt the teaching to meet student needs' (p. 2). This model is at odds with Kahl (2005) who also linked formative assessment directly to teaching. However, Kahl defined it in a deficit framework as 'a "midstream" tool used to identify specific student misconceptions and mistakes while the material is being taught' (p. 11). This deficit approach is not compatible with a belief in developmental learning.

Heritage (2010) is clear that formative assessment is not a tool, but a process, and is implemented in the context of natural progressions of learning within domains of interest: 'teachers need to have in mind a continuum of how learning develops in any particular knowledge domain so that they are able to locate students' current learning status and decide on pedagogical action to move students' learning forward' (Heritage 2008, p. 2). This requires teachers to not only have pedagogical skills but to understand deeply the nature of their discipline and how learning develops with it (Hutchinson et al. 2014). Such a developmental model of learning draws on the work of Glaser (1981), who defined criterion-referenced interpretation frameworks as those which allow monitoring of progress through stages of increasing competence. The model also allows the zone of proximal development (ZPD) (Vygotsky 1978) to be recognised as one of the stages of competence where the student needs assistance to learn. Rasch (1960) showed how this stage could be identified with the learning indicators that define the ZPD located where the student ability is equal to the difficulty of the assessment task, and hence the student has approximately a 50 % chance of success. For a review of this developmental model, see Griffin (2007). The model assumes that students can be located on a developmental continuum that describes stages of increasing competence (Glaser 1981). If these stages are described by a cohesive collection of skills that a student has a 50:50 chance of demonstrating (Rasch 1960), then the skills provide a description of the ZPD. This is important information for the teacher in that it requires assessment activities undertaken by teachers (Black and Wiliam 1998) and that the teacher interprets the information in a developmental manner, using either an explicitly defined continuum or the teacher's own intuitive scale in

order to make decisions about how best to help the student progress to the next stage of competence. This does not rule out information provided by the student that the teacher can use, but it does demand a process of collection, interpretation, and decision making by the teacher to help scaffold student development to the next stage of learning. Feedback to the student then takes on a more developmental approach. The assessment activities on their own cannot do this. Hence, we use the expression 'assessment for teaching' rather than 'assessment for learning.'

We consider that assessment for teaching overlaps with assessment for learning and formative assessment in their basic formats. It involves a collaborative teaching cycle in which teachers collaborate in teams to make decisions about targeted teaching practices that focus on scaffolding learning for individual students. It is represented in a five-step iterative cycle which includes but goes beyond Sadler's (1998) conditions for implementing formative assessment:

1. What is the student ready to learn? (ZPD)
2. What is the evidence for this?
3. What are the possibilities for learning and which approach is best?
4. What are the criteria of success?
5. What is the evidence of success?

Assessment for teaching is applicable within a growth model and dependent on an understanding of the developmental progression being used as a criterion-referenced framework for interpreting the evidence of student location on the progression. This ensures three things: that student growth or learning has direction and is not a random collection of goals; that there is an order to the growth or a sequence decided upon by the teacher in collaboration with a colleague and, where appropriate, with the student; and that there is an amount of learning agreed on in terms of level on the progression. This could be a set of skills acquired but is almost never described in terms of score increase, which we consider to be meaningless in an instructional and learning centred growth model. As more fully explained and exemplified in Griffin and Care (2014), assessment for teaching:

1. is situated within a growth model of teaching and learning;
2. involves a collaborative process between classroom process stakeholders (teacher, peers and students where appropriate);
3. demands that the assessment and learning depict direction, order and magnitude (three of four properties of fundamental measurement);
4. requires evidence based decisions regarding instruction, scaffolding, and outcomes;
5. is an iterative process involving the five questions listed above.

Compared to AfL, assessment for teaching emphasizes the central role played by at least two teachers who collaborate regarding the above questions: the resources needed (including but not exclusively other students), the scaffolding strategy, and evidence of attainment. The teacher is central but the student is the focus;

scaffolding is the primary strategy but student learning is the goal. These were the issues under consideration when exploring classroom assessment practices in the Philippines.

5.2 Method

The project, from which the results reported here derive, was established to conduct a national survey of teachers in their practices in assessment. The purpose of the larger study was to identify the variation in practices between the following elements of the system:

- teachers within schools
- schools within districts
- subjects within schools
- grade levels within and between schools
- teachers within subjects, and
- regions or districts within the system.

The rationale for observing these differences was to provide data that would inform the linking of successful practices to student learning outcomes. Several assumptions were made under this contextual framework:

1. Measures of student performance would be available;
2. Sufficient variation within and between each of these elements would be available and measurable;
3. Teacher practices could be linked directly to student performance; and
4. Formative assessment existed in the schools.

In identifying the degree to which formative assessment practices can produce the outcomes anticipated of them, such measurable and verifiable data sources are essential. In beginning to examine these sources of variation in assessment practices, sixty-one classroom visits and observations were conducted. Summaries of these classroom observations and interviews with teachers were documented in narrative form and the narratives then explored for patterns to use in the third and fourth assumptions above. Lewin's (1947) force field analysis approach was used to examine the forces facilitating formative assessment and the forces blocking such an approach. The forces were then examined to identify relevant actions and recommendations.

Systematic classroom observations were conducted in the last quarter of the school year 2013–2014. The observations ranged from Kindergarten to Grade 9 (or 3rd year of secondary school where students are normally within the age range 13–14 years old). The observations had a focus on mathematics and English subjects. Table 5.1 presents the sample descriptions and the details of the schools. The

Table 5.1 Descriptive statistics of participating schools by grade levels of classes observed

Level	Frequency			DepEd schools			UP integrated school		
	Total	Math	English	No. of classes	Average class size	Average duration (min)	No. of classes	Average class size	Average duration (min)
Kind.	1	1	0	1	21	60	–	–	–
1	10	5	5	8	29	49	2	25	72
2	6	3	3	2	42	60	4	–	82
3	8	4	4	6	38	67	2	34	75
4	11	6	5	9	41	56	2	31	75
5	11	5	6	9	41	79	2	33	71
6	8	4	4	6	47	51	2	29	73
7	2	1	1	2	49	65	–	–	–
8	2	1	1	2	44	64	–	–	–
9	2	1	1	2	53	56	–	–	–
Total	61	31	30	47			14		

Note Mean values are rounded to the nearest decimal place

year levels, subject observed (English and or mathematics), and typical class sizes and lesson duration across government and independent schools are presented. Twelve public schools in Quezon City, in Manila, were visited. Most schools were under the supervision of the Department of Education (DepEd) (n = 11) and one was a laboratory school under the supervision of University of the Philippines (UP). In terms of class size, Kinder and Grade 1 levels for Department of Education schools were smaller in number than other grade levels. For the UP school, the class sizes were within the range of 25–35 students. The duration of a class session in a DepEd school is typically sixty minutes, and for UP the suggested length of class period is 75 min. The average class duration observed indicates that most classes are near the mandated length.

Table 5.2 displays the summary of class statistics of the Department of Education schools observed. Column 3 shows that the class sizes increase with the

Table 5.2 Descriptive statistics for Department of Education classes observed

Department of Education levels	Number of classes	Average class size	Average class duration (min)
Basic Education: Kinder	1	21	60
Basic Education: G1–G6	40	39	62
Secondary Education: G7–G9	6	49	62
Total	47	40	

Note Mean values are rounded to the nearest whole number

grade level of students in these particular schools, all of which were in Quezon City, which covers about a quarter of metro Manila, and is the most populated city in the Philippines.

The classes generally start with checking of work done, identification of correct responses and of those students who achieved these. When the teacher asks for responses that are a matter of direct recall, she receives more responses than when she moves to definitional questions. The teacher then models an activity with some student participation, and then sets a task for the students to complete as groups. Through to the completion of this activity, not all students participate or are included in the work. In the next activity all students are included, and the teacher identifies winning groups as those who complete the activity first. All groups are given the opportunity to present their results. Requests to the students to generalise their understanding are met with few correct responses. The teacher concludes by distributing a 5-item quiz to students, which the students then peer mark. The teacher calls out the correct responses, and then asks for students with a pass grade to self-identify. Those students lower than pass are instructed to study the activity.

5.3 Results

5.3.1 Classroom Practices Through a Formative Assessment Lens

Common structure: The narratives of the 61 classroom observations provide a persistent impression that there is a common structure for the lesson plan. The formats used for lesson delivery appeared to be inflexible. The lesson began with a class activity, followed by small group activity, question-and-answers with show of hands, and then a summary session. Sometimes the class activity consisted of a recitation activity at the beginning of the class and at other times the content recitation was performed by individual students at the front of the class but only if they were prepared to demonstrate that there was a chance they did not understand what was taught. What may have been an attempt at formative assessment may have been counterproductive and provided signals that there is a need for teacher development in the use of data to promote learning for individual students. The primary focus of the teacher is on identification of correct responses and correct responders.

Student Behaviour: Results from assessments were sometimes used to modify teaching strategies for an entire class. There was little evidence that assessment results were targeted to individual students or to small groups of students. Individual intervention was often based on behaviour (e.g., low interest, truancy), rather than on level of skill as indicated by assessment. Teachers used student behaviour to cue them on whether students were paying attention, were uninterested or not motivated, were understanding the lesson or becoming confused, and were

mastering the lesson. Many teachers judged the extent to which students knew or had learned the lesson content by the way the students reacted rather than by a formal assessment. For example, mastery was assumed of students who demonstrated behaviours associated with understanding—raising hand during question and answer; apparent attentive listening; participation in discussion; asking questions. The use of such indicators and anecdotal evidence can be valid, but few teachers understood that both responses and nonresponses could be used formatively. Few marked or noted students' outputs, or if they did, they did not record results as part of the final grade. Many teachers, however, did incorporate results of the routine class quiz as part of the evaluation of student performance.

Generally, when the teacher asked questions, a show of raised hands was used by the teacher as an index of understanding at the class level. However, the teachers did not demonstrate realisation of the potential of the assessment information and did not maximise the effectiveness of the strategy. In part, this may be attributed to the preponderance of low order questions, requiring mainly closed or recall responses.

Assessment: Assessment appeared to be uniform for every student in the class, and results were interpreted in aggregate form, such as what percentage of the class was above or below a given threshold. Occasionally, the teacher interacted with individual students but this was limited and did not appear to be connected with the use of data to inform intervention and direction of student learning. A quiz was typically held at the end of the class. This consisted of approximately five to eight true/false or short-answer, supply-type items. Students scored their own test answers or exchanged tests in order to have a partner score them. The teacher did not get involved in scoring individual student results on quiz questions. The teacher occasionally collected the student books or test sheets and recorded the performance on these quizzes at an individual student level. However, there was no apparent use made of the data.

Grouping: Grouping students in the class was typically used to encourage learning through competitive participation and engagement. Some teachers appeared to be successful in using this approach for engagement purposes. Students enjoyed, or appeared to enjoy, the competitive nature of some of the group tasks. The actual grouping appeared to be arbitrary or based on subjective judgment on ability.

Curriculum pressures: Many teachers were aware of, and sensitive to, the amount of time taken by various activities in the class. The perception that the curriculum is difficult to cover in terms of the breadth of scope and sequence may account for the formulaic approach to teaching that is adopted. The formulaic nature of the lesson appears to achieve compliance with curriculum objectives on the part of the teacher but does not necessarily achieve learning on the part of the student. The classroom is an environment in which the teacher must deliver the set curriculum topic, rather than a venue where the focus is on the student learning. Content varied from teacher to teacher and was subject to school level decisions.

Students: There was little evidence of students seeking formative feedback from the teacher and very little evidence of the kinds of strategies that the students use in their efforts to learn. Students did not expect formative feedback regarding their learning outcomes. The quiz at the end of the class was commonly the only method of providing learning information or feedback to students through identification of correct/incorrect responses. During classes teachers sometimes asked if there were any questions, but in some classes this practice tended to discourage the students, who appeared to be intimidated due to the consequence of being called to the front to have their question explained in front of their peers.

Summary: While teachers taught different content within subjects, and for the most part schools practised a fair amount of autonomy in terms of the delivery of content, there was little or no autonomy in lesson design, structure, and format, or assessment practices. It is clear that the lesson structure (see Table 5.3) is associated with:

1. Summative assessment at the end of the lesson
2. Pressure on teachers to ensure that the content of the curriculum is covered in each lesson
3. Limited individual feedback or feed forward for students
4. Pressure on teachers to monitor their own performance but not that of the students
5. Common format.

Insofar as assessment was practised in the classrooms, minimal emphasis was given to formative assessment and most assessment was summative and recorded as scores or percentage correct. The assessment skills of teachers resulted in a state of equilibrium in the classroom brought about by the pressure of an intense content-focused curriculum, large class sizes, a formulaic lesson plan and structure, regular and mistargeted assessments, and a lack of accountability for student learning. These observations made it clear that there was little chance of pursuing the original intention to survey the influence of variability between teaching strategies across grade levels, across subjects, across education levels, and across schools. Given the invariance of lesson structure and pedagogy, improvements in student learning were more likely to be a result of other factors. However, the observation study did provide evidence of a need for changes in pedagogy if formative assessment is to be used to improve teaching and learning.

In summary, the classrooms were environments in which:

1. Teachers asked questions and used a show of hands as an indicator of learning success.
2. Teachers sometimes collected student's notebooks, but provision of written comments as feedback was unusual.
3. Teachers sometimes set group projects and group work, as well as individual assignments.

Table 5.3 Blocking forces

Blockers	Effect	Action to reduce the effect
B1 Formulaic lesson plan structure (teaching guides are given to the teachers) [Teacher interviews]	The focus on following a predefined structure results in less attention in determining how learning is developed in the classroom. In the implementation of the K–12 curriculum, the teachers are now advised to use daily lesson logs; however, many teachers prefer to stay with previous ways. The emphasis is on covering the curriculum as a priority	Shift the attention of daily lessons from activities and predefined structure to assessment of learning and assessment for teaching; lesson plans should include questions drawing out the inputs generated by the teacher. Lesson plans should include specific indicators that would inform the teacher about the current level of each student in order to provide assistance. Advice is needed for using quiz data at the beginning of each class to assist teaching
B2 Lack of teacher training in formative assessment [Teacher interviews]	The types of questions asked do not link to a skill progression. It is difficult for teachers to determine the development of the student in relation to a particular skill. Also, collected quiz data are not used to improve student teaching. Teachers are unclear about the purpose of assessment, and as a result, the link between assessment and teaching is not clearly established	Introduce to teachers the concept of skill progression; help teachers to emphasise the importance of skill development rather than content-driven perspectives; reform current perceptions that more activities mean more learning; help the teachers to use data from different types of questions to identify increasing skill levels
B3 Pressure of curriculum coverage [Teacher interviews]	Even if teachers know that there is a percentage of students who do not understand the lesson, they feel an urgency to proceed to the next lesson because they are expected to cover a set range of topics. This leads to some students not developing the skills or foundation knowledge needed to understand the next lessons	The curriculum should shift towards a developmental progression framework to reduce the pressure of curriculum coverage. The best option would be to focus on the foundation skills (cutting across different content areas) needed for students to go to a higher level. Emphasise skills in the curriculum rather than content
B4 Emphasis on summative assessment [Observation and narrative records]	Collection of data is used for the purpose of generating 'grades' which are used to represent the overall performance of the student. Attention given to the actual skills acquired by the students is minimal. With focus on summative assessment, areas that need to be improved are not identified	Assessment can focus on the developmental skills as a shift from content-based to a skill-based. Materials on skills and scaffolding need to be provided for teachers, perhaps as part of online resources to maximise reach and opportunity to access

(continued)

Table 5.3 (continued)

Blockers	Effect	Action to reduce the effect
B5 Lack of a data management system at class and school levels [Observation and narrative records]	Not all the activities and outputs of the students are recorded consistently and systematically. As a result, these data are not used to develop plans for improving teacher practices and student learning	Within-class differentiated instruction can be implemented if targeted materials are available and teachers have reliable records of student progress. The resourcing issue can be addressed through provision of basic recording devices to teachers and different worksheets for groups of students. DepEd's current initiatives for an integrated information system may assist this
B6 Systemic focus on grades [Teacher interviews]	Related to 'Emphasis on summative assessment,' the documentation inside the classroom produces grading. However, the focus on student's level of understanding and skill is not reflected. If the student has a passing grade, he or she is eligible to move to another grade regardless of actual understanding	Instead of using an overall index of student performance, encourage teachers to employ different indices of student skill as part of recording and reporting
B7 No clear link between assessment results and instructional planning [Observation and narrative records]	Empirical data are not used to support teaching strategies to improve student outcomes	Provide teachers with materials and methods that assist them in collecting, analysing, and reporting student achievements and skill acquisition
B8 Heavy teacher workload [Teacher interviews]	Limits additional interventions that can be asked of teachers	Focus on improving materials on basic skills needed for teachers and on reducing teacher workload by using technology to ease labour-intensive routine tasks. Online resources may be needed
B9 Need for more various forms of accountability in the system and clarification of link between performance and compensation [Teacher interviews]	Accountability for test scores and a system of compensation linked to test scores encourages teaching to the test and concentration on improving performance in external tests	Provide assessment materials that are evidence based, in that they are linked to student skill development. Develop a compensation system that rewards teacher collaborative teams for collective student learning and skill development. Online training modules may be necessary

4. Records of student learning gains consisting of scores or grades are not well suited to planning instruction. Recorded descriptive information about progress of individual students in mark books was unusual. Anecdotal records were not observed at all. Most of the recordings appeared to rely on memory and in large classes these were problematic. Few records provided information about the class, the student, the topic, the syllabus, progress of students, or progress of the class, notwithstanding rigorous completion of marking spreadsheets.
5. Teachers recorded their own progress in terms of content coverage and lessons completed. Very few made evaluative or assessment comments about their own performance.
6. The procedures for teachers to synthesise information at the end of term in order to provide a report are clear and are based purely on summative data.
7. Records to students for purposes of instructional feedback, as opposed to feedback of grades, were non-existent.
8. Possibilities for collaboration with students or with colleagues were non-existent given the mandatory rate of coverage of the curriculum.

Accordingly, it was decided that the narratives would be analysed using Lewin's force field analysis to identify the operating forces within classrooms that might encourage or discourage the use of formative assessment.

5.3.2 Force Field Analysis

The force field analysis provides a base for Lewin's (1947) three-stage theory of change: unfreezing the existing equilibrium (disruption), moving towards the desired change (change forces), and then freezing the change at the new level (institutionalization). In this case it is necessary to find a way in which formative assessment could be part of the new equilibrium and put a system in place to support this equilibrium. The introduction of formative assessment will depend on changes to the resisting or negative forces and an enhancement of the facilitating forces. From the records of school visits, the elements of the force field analysis emerge. Table 5.3 presents the force field analysis for the blockers while Table 5.4 presents the analysis for the facilitating forces. Both tables list the forces, the effect of each on formative assessment practices, and the recommended actions either to weaken the blocking or strengthen the facilitating forces.

It should be noted that the suggested actions are drawn from local understandings of what might be possible to implement, rather than recommending actions that are too far beyond the current capacity of the system and its teachers.

Table 5.4 Facilitating forces

Facilitating force	Effect	Action to enhance effect
F1 Student response to feedback [Observation and narrative records]	Feedback to students will encourage teachers to focus on what was taught and what is learned	Provide materials that help with systematic data collection and interpretation at the student and class level. Provide user-friendly materials that link assessment data to teaching strategies and student outcomes
F2 Policy shift towards formative assessment [DepEd Order No. 73, Series 2012 (DepEd 2012)]	The Department of Education is actively shifting focus to encourage the use of formative assessment in the classroom	Publicise the support from DepEd for a review of current assessment practices and encourage, disseminate, and reward implementation of formative assessment practices
F3 The need to improve student skill development [National Achievement Tests and TIMSS 2008 results (Arora et al. 2009)]	There is a need to improve awareness of international benchmarks. This has the effect of increasing the motivation within the education system to adopt new ways to improve student outcomes	Provide clear evidence that formative assessment has significant impact in improving student outcomes, both by improving teaching and by linking assessment with planning
F4 Potential of new technologies to aid teachers and ease their administrative workload, while also assisting in more systematic record keeping and data analysis [DepEd ICT4E Strategic Plan (DepEd 2011)]	Using technology in the classroom reduces teacher workload and increases the efficiency of record keeping. Technology also enables more accurate data analyses which then results in faster feedback to students and stakeholders	Provide online tools and proper training linking assessment and teaching, and assuring ease of analysis and interpretation of assessment data
F5 Teachers follow system-wide instructions closely [Teacher interviews]	Systemic interventions can be implemented uniformly across the system	Disseminate materials for teachers to help improve their formative assessment and reduce workload

Note Text in brackets indicates data source of the forces identified

5.4 Recommendations

From the observations of classes, it was clear that the majority of classes are run to a standard structure, with emphasis on moving through curriculum content. The focus is clearly on what the teachers do. The context for this is a highly centralised and hierarchical system in which authority relationships are preeminent. The K–12 reform provides a major opportunity for changes in pedagogy and assessment.

Impediments to these changes lie primarily in the prescribed nature of how teachers and schools function, in lack of materials resourcing, in crowded classrooms, and in relatively low levels of teaching expertise.

The Department of Education was moving on these fronts, and two years into the reform process, was focussed on the national assessment framework—at system, school, and classroom levels. Early initiatives include train the trainer activities to develop the expertise of teachers in their assessments of literacy and numeracy in the early years. Similar initiatives in formative assessment are justified. At the most basic level, focus on questioning techniques to stimulate student thought and analysis is a reasonable first step to enhancing teacher skills. In the observations, questions measuring higher order thinking skills or critical thinking were very rare, and occurred, if ever, only in the form of reasoning, explaining, or defending an answer. Teachers need to be supported in framing questions both for assessment and for teaching purposes. There is a need for open-ended questions, diagnostic questions, information-seeking questions, challenge questions, action questions, questions on priorities, prediction questions, hypothetical questions, questions of extension, and generalisation questions in all subjects and at all grade levels. This change alone would have an important impact on the use of formative assessment and would blend assessment with teaching. The current practices in classrooms are reflective of a belief in the primacy of a correct response and of a competitive environment. Developing the teachers' skills in feedback strategies linked to their improved questioning strategies would be an important step in improving teachers' use of formative assessment strategies.

It is pragmatic to work within existing paradigms if these can offer the opportunity to reach the desired outcomes. The training which will be required of teachers to implement the reform will not take place as rapidly as the initial reform of curriculum process. It makes sense to identify teaching strategies which can be integrated within current practice, but there is also a need to focus on those practices which will reframe teachers' understanding of the learning process. Zuzovsky (2013) has drawn attention to the differential impact of particular teaching strategies across countries (or classrooms) which vary in educational performance. In relating classroom practices to educational outcomes in mathematics and science on large scale assessments, she found that some traditional practices, such as the use of a short quiz, had negative associations with achievement in lower performing countries, while some constructivist modes of instruction, such as students explaining their answers, had strong positive associations. This finding alone can inform how a 'mandated' component of the classroom could perhaps be turned to positive effect with some rethinking of how the quiz can be managed to act as formative assessment.

Arising from the force field analysis, three main educational components are highlighted for promotion of positive changes in educational assessment and consequently in quality of education. These are the availability of materials, the assessment system, and a technology platform for delivery of assessment and materials. These strategic components can provide the infrastructure to support teachers in their professional development in assessment and pedagogy (Table 5.5).

Table 5.5 Recommendations, resources needed and timeline

Recommended action	Resources needed	Timeline
Change in formulaic lesson plan	Support from DepEd in developing and embedding successful formative assessment techniques in lesson plans, model lessons and exemplar assessments, questioning techniques and quizzes	Short term, 2 years
Training to provide better task-oriented feedback	Announced support from DepEd to assist agencies to develop online professional development sessions	Short term, 2 years
Training on test construction and development	Announced support from DepEd to assist agencies to develop online professional development sessions	Short term, 2 years
Shifting the focus of assessment—focussing on skill rather than content	Provision of exemplar materials and advice on how to use assessment data to help teaching	Short term, 2 years
Improvement in reporting to school administration	Provision of technologies to facilitate assessment interpretation, and implications for teaching and reporting	Short term, 2 years
Accountability for teaching and student results	Provision of enabling technologies to facilitate systematic data collection and reporting and collaboration among teachers	Medium term, 5 years
Improvement in reporting to parents	Provision of technologies to facilitate electronic reporting to enable reports of skills developed as well as grades (as a transition strategy)	Long term, 10 years

5.5 Conclusion and Implications

In a study of Philippines classroom assessment it became clear that the ability of most teachers to synthesise information about the students' levels of development, as well as their discrete skills and content learning, was not manifested in the delivery of lessons. Assistance for teachers to adopt an understanding of developmental approaches to learning and teaching is critical for the successful implementation of the K–12 education reform. Understanding of the interdependence of teaching and learning, of assessment and reporting, and of curriculum and resourcing is critical at this stage in the Philippines' reform process and is clearly visible through this analysis of the issues faced by teachers and students in the classroom. Pedagogical and assessment skills must be enhanced to support an educational philosophy of learning for all and achievement for all.

There are also several other lessons to be drawn from these observations. Firstly, the study highlights the need for formative assessment *of* and *by* teachers. Formative assessment of teachers can be addressed in many systems by reflecting on the development of basic pedagogical strategies. Questioning, for instance, will

become an important pedagogical skill in the 21st century. As the knowledge society develops, even in developing economies, education will be under increasing pressure to change. Teachers will be less able to be transmitters of information, and the role of a teacher will need to change. Questioning has always been an important skill, but its importance will increase as the skill of addressing questions to students replaces the didactic approach of telling. However, there may be cultural influences at work here; an effective approach to changing teacher questioning will be difficult. In a study of Vietnamese Primary teaching practices (Griffin et al. 2006), it was clear that teacher expertise was an important issue and questioning was used predominantly as a means of checking whether the students had attended to the teachers' knowledge transmission.

An important lesson from this research that could be of interest to an international audience is that the assistance to teachers is based on a detailed study of how they actually teach and assess students, and the recommendations made to the Department of Education were based on identification of barriers and facilitating factors. In short, the department was encouraged to implement a policy which takes teachers from where they are instead of where they should be. This issue may arise in many cultural settings where teachers are respected and rewarded for their knowledge. Paradoxically, changing these school cultures to enable more emergence of a knowledge society will be exacerbated by the very respect that is afforded to teachers as content experts. Griffin et al. (2006) and others reported that it was only recently (1999) that teachers were permitted, after an inspector reviewed their practices, to depart from the mandated Vietnam lesson plan. If this were to happen in the Philippines the country might founder in its stated goal of developing holistically prepared adults with twenty-first century skills. Ironically, the development of the twenty-first century Filipino requires pedagogical skills among teachers, starting with questioning strategies, flexible lesson plans, and formative assessment practices focused on their own learning as well as that of their students. The change in assessment practices needs to focus first on how teachers use assessment data to adjust their pedagogy to help student learning, and this of course includes using student involvement in the process.

References

Arora, A., Foy, P., Martin, M. O., & Mullis, I. V. S. (Eds.) (2009). *TIMSS and PIRLS advanced 2008 technical report*. International Association for the Evaluation of Educational Achievement (IEA). Chestnut Hill, MA: TIMSS & PIRLS International Study Center, Lynch School of Education, Boston College.

Black, P. J., & Wiliam, D. (1998). Inside the Black Box: Raising standards through classroom assessment. *Phi Delta Kappa*, October 1–13.

Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability, 21*(1), 5–31.

DepEd. (2011). *Five-year information and communication technology for Education Strategic Plan* (DepEd ICT4E Strategic Plan). Manila: Department of Education, Republic of the Philippines.

DepEd. (2012). *Guidelines on the assessment and rating of learning outcomes under the K to 12 basic education curriculum* (DepEd Order No 73, s. 2012). Manila: Department of Education, Republic of the Philippines.

Glaser, R. (1981). The future of testing: A research agenda for cognitive psychology and psychometrics. *American Psychologist, 36*, 923–936.

Griffin, P. (2007). The comfort of competence and the uncertainty of assessment. *Studies in Educational Evaluation, 33*, 87–99.

Griffin, P., & Care, E. (2014). Assessment is for teaching. In P. Griffin (Ed.), *Assessment for teaching*. Melbourne: Cambridge University Press.

Griffin, P., Nguyen, T. K. C., Gillis, S., & Mai, T. T. (2006). An empirical analysis of primary teacher standards in Vietnam. *Planning and Changing, 37*(1& 2), 71–92.

Heritage, M. (2008). *Learning progressions: Supporting instruction and formative assessment*. Washington DC: Council of Chief State School Officers.

Heritage, M. (2010). *Formative assessment and next generation assessment systems: Are we losing an opportunity?*. Washington DC: Council of Chief State School Officers.

Hutchinson, D., Francis, M., & Griffin, P. (2014). Developmental teaching and assessment. In P. Griffin (Ed.), *Assessment for teaching*. Melbourne: Cambridge University Press.

Kahl, S. (2005). Where in the world are formative tests? Right under your nose! *Education Week, 25*(4), 11.

Lewin, K. (1947). *Resolving social conflicts: Selected papers on group dynamics*. New York: Harper & Brothers.

Rasch, G. (1960). *Probabilistic models for some intelligence and attainment tests*. Copenhagen: Neilson & Lydiche.

Sadler, D. R. (1998). Formative assessment: revisiting the territory. *Assessment in Education, 5*(1), 77–84.

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

Zuzovsky, R. (2013). What works where? The relationship between instructional variables and schools' mean scores in mathematics and science in low-, medium-, and high-achieving countries. *Large-scale Assessments in Education, 1*(2), 1–19.