Teachers and testing: an investigation into teachers’ perceptions of formative assessment

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Abstract

Research evidence conducted within the past decade contributes much to an understanding of the role and potential value of formative assessment in learning. As an Advisory Teacher within a local authority, the researcher was interested to find out how teachers actually perceive formative assessment. This study therefore set out to investigate the range and psychological nature of such perceptions and whether any relationships exist between them and independent variables such as school phase and length of teacher experience. It also aimed to discover which issues concerning formative assessment emerged as important to teachers. A conceptual framework was devised to inform, clarify and interpret the research process. The sample was drawn from teachers working in 24 lower and middle schools within one local authority and the research was conducted in two phases. During Phase 1, data was drawn from a questionnaire survey which elicited both quantitative and qualitative responses from 67 teachers. Analysis of this data revealed a range of perceptions about formative assessment. It also showed relationships between some of these perceptions and both school phase and length of teacher experience. Salient aspects of this evidence were then incorporated into an interview schedule which was used during Phase 2 of the research with a small sample of three teachers. Qualitative thematic analysis was undertaken here and five key themes emerged as highly relevant to the investigation. These were: accountability; prescription and ownership; school context, culture and collaboration; leadership and management; the complexity of teaching and learning. These themes were then considered in relation to the psychological and educational issues identified within the conceptual framework. Both theoretical and practical implications were discussed and recommendations made for future policy and practice.
Background

Research evidence conducted within the past decade contributes much to an understanding of the role and potential value of formative assessment in learning. As an Advisory Teacher within a local authority, the researcher was interested to find out how teachers actually perceive formative assessment. Before embarking on an investigation, theoretical ideas, concepts and evidence within the research context were considered. Although much research into formative assessment has taken place within an educational context, much of the thinking behind it is derived from psychological theories of attribution, achievement motivation and the nature of teacher knowledge. These theories will be explored in more depth within the conceptual model (Figure 1.1).

Firstly, it is important to establish operational definitions for key concepts. For the purpose of this study ‘teachers’ were defined as those with qualified teacher status (QTS) and currently employed in that capacity within the local authority schools. ‘Perception’ has been defined by Neisser (1976) cited in Hayes (2000), as an active and dynamic cycle of cognitive construction which aims to make sense of experience. It is cyclic in nature because it is ‘directed by what we expect to find as well as what we have already found’. Human beings are seen to ‘operate selective attention to what they perceive as relevant, ignoring what they see as unimportant’, thus developing individual hypotheses which attempt to explain the reasons why certain things happen (Hayes, 2000: 59).

Within this study the term ‘formative assessment’ was based on the definition outlined by Black et al (2005). Here it is depicted as an informal and continuous process, embedded in teaching and learning and conducted by teachers as an integral part of their everyday classroom work. Its aim is seen as the improvement of learning which is highly personalised. This concept of assessment is based on a social constructivist perspective of learning, achieved through social interaction between teacher and pupil within a particular context: the ‘zone of proximal development’ (ZPD) (Vygotsky, 1978). Its principles underpin the government’s ‘Assessment for Learning’ (AfL) agenda, described as ‘using evidence and dialogue to identify where pupils are in their learning, where they need to go and how best to get there’ (DFES, 2004 d).

It forms a direct contrast with a behaviourist model of learning where knowledge is seen as ‘politically and socially neutral’ (Rubin and Rubin, 2005: 23), and achieved by clear specification, implementation and measurement. Within the UK the interpretation of ‘summative assessment’ (reporting on what has been learned) is closely aligned to this model, as data arising from it is used by the government to support accountability via mechanisms such as school target setting and league tables. In their research Torrance and Pryor (1998) identified a tension and anxiety among the teachers, who often saw such assessment practices as ‘antithetical to their values and …..theories of teaching and learning’. Many teachers felt that they needed to ‘protect’ children from being judged too soon. Thus a disparity was seen to exist between teachers’ perceptions of government intentions and their own values and practices.
Further studies emerge from a literature review as key to an understanding of teachers’ perceptions of formative assessment within learning contexts. Reviews of research by Black (1998), Black and Wiliam (1998a, 1998 b) and more recently by Black, Harrison, Lee, Marshall and Wiliam (2005) demonstrate that when formative assessment is embedded in classroom practice, substantial learning gains can be achieved. This research identifies the main features of formative assessment, which include strategies such as the use of ‘wait time’ when questioning and peer / self-assessment. Although these ideas have been developed for use in the field by Clarke (2001) and others, one of the original findings of Black and Wiliam (1998 a, 1998 b) and more recently of Black et al (2005) was that there is still considerable potential for improvement in formative assessment practices in schools.

The local authority where the researcher worked as a Learning Support Advisory Teacher was one of the few within the UK operating a three tier system of schooling. The opportunity was therefore taken to investigate the perceptions of teachers in lower and middle schools within this system. It was hoped that this would complement earlier research undertaken in secondary schools (Black et al, 2005) and add to the understanding of how teachers perceive formative assessment and its role in children’s learning. The sample was thus drawn from a range of teachers working in 24 lower and middle schools which formed part of the researcher’s caseload. As an ‘opportunity sample’, this could not claim to be fully representative of the whole school population within the county. The potential for researcher bias was acknowledged and measures taken to minimise this as much as possible. It was hoped that some interesting and relevant findings would emerge from the key research questions. It was anticipated that these could form the basis of recommendations for future policy and practice in schools.

**Research questions**

The research questions to be addressed were:

- What are teachers’ perceptions of formative assessment?
- Do relationships exist between teachers’ perceptions and factors such as school phase and length of experience and if so, what is the nature of such relationships?
- Which aspects of formative assessment emerge as important to teachers?
**Methodology**

The study employed a mixed method non-experimental design using a survey and an interview schedule. It was hoped that, by combining methods derived from both quantitative and qualitative research paradigms, the research questions could be explored in some breadth and depth and triangulation achieved. In accordance with BPS (2000) ethical guidelines, participants were asked to give their informed consent both verbally and in writing before the research began and confidentiality was assured. Phase 1 set out to answer the first two research questions.

**Phase 1**

During Phase 1, data was drawn from a questionnaire survey which elicited both quantitative and qualitative responses from 67 teachers. The survey included a unipolar 5 point Likert rating scale which set out to record teachers’ perceptions about a range of issues associated with formative assessment. Following a pilot study, the dependent variables used were 14 perception statements relating to key aspects of formative assessment identified within the literature review. Scales were incorporated to measure the independent variables: school phase (Phase) at two levels (lower or middle schools) and length of teacher experience (Experience) at four levels (1 – 3 years, 4 – 10 years, 11 – 20 years, over 20 years). Standardised instructions formed an integral part of the survey. The intention was to provide clarity and consistency for all participants, improving the reliability of the test. The survey was administered anonymously with the aim of minimising potential bias.

**Phase 2**

The Phase 1 analysis revealed some salient features which were then incorporated into an interview schedule used during Phase 2 of the research with a sample of three teachers selected from among the original participants. These were not intended to be representative of the larger sample but were chosen to reflect some of the diversity of school phase, experience and roles of teachers currently working in schools in the local authority. They included: a middle school Special Needs Co-ordinator (Amanda) with 3 years experience; a lower school Inclusion Manager (Penny) with 14 years experience; a lower school (teaching) Head (Jane) with 30 years experience. All were female and known to the researcher. In addition to their stated roles all these teachers spent at least 50 per cent of their time within school as class teachers. In order to protect anonymity all names are fictitious.

The research instrument used in Phase 2 aimed to probe teachers’ perceptions in more depth and was based on the ‘responsive interview’ model (Rubin and Rubin, 2005). Within this model the aim is to obtain participants’ interpretations and understandings within the personal relationship which is established between interviewer and interviewee. The approach within the interview situation is flexible and adaptive and each interview is different, depending on outcomes which develop during the interview process. Responsive interviewing recognises that while the personality, style and beliefs of the interviewer matter, care must be taken not to impose personal views during the interview.
Response rates / profiles

Of the 67 teachers who responded the largest group was made up of lower school teachers (53 participants, 79.1% of the sample). A total of fourteen middle school teachers responded (20.9% of the sample). Figures derived from the Educational Psychology and Learning Support Service (EPLSS) in 2006, showed that lower schools accounted for 71.9 per cent and middle schools for 19.7 per cent of all schools in the local authority. Upper schools, which were not included in the current research, accounted for 8.4%. This data suggests that, although small, the sample was reasonably representative of the teaching population within the county in terms of school phase. In terms of experience, teachers in the sample were fairly evenly distributed across the four age groupings. Those with over 20 years experience did, however, account for 34.3% of the sample, showing a weighting towards greater experience. Demographic data about this variable was not available from local authority sources, so it is difficult to judge how representative the sample may have been in terms of experience.

Data analysis

Data derived from Phase 1 was coded and analysed using SPSS. A decision was made to reduce the dependent variables from 18 to 14 to improve the internal consistency of the rating scale. This was based on evidence demonstrated by Cronbach’s Alpha coefficient (initially measured at .424) which, according to Pallant (2001), should ideally be above .7. Once four of the variables had been removed Cronbach’s Alpha an improved measure of .583 was achieved. For the purpose of comparing frequencies it was decided to collapse the original 5 point Likert scale into three categories (agree; unsure; disagree) to enhance clarity at the descriptive analysis level.

Within Phase 2 inductive thematic analysis formed the basis of data analysis from the interview schedule. This qualitative inductive approach is based on the identification and analysis of themes as they emerge from systematic scrutiny of the data. Using a rigorous staged approach advocated by Hayes (2000), comments made by participants were scrutinised for keywords. As key words and phrases were identified, tallies were used to aid the recording and classification process. As common themes began to emerge, decisions were made about further classification. Data was reconsidered and redefined until key themes had emerged.
Conceptual framework.

A conceptual framework was devised to inform, clarify and interpret the research process.

Much of the thinking behind the concept of formative assessment is derived from psychological theories of attribution, achievement motivation and the nature of pedagogical knowledge. The work of Weiner (1990) suggests that it is not the experience of success or failure in learning which counts so much as the individual’s attributions about it. Educational research undertaken within the UK and the USA by Pollard (1996) and Dweck (2000), suggests that there is a strong relationship between teachers’ perceptions and classroom practices. The concept of ‘pedagogical content knowledge’ (Shulman, 1986; Watkins and Mortimore, 1999) emerges as a key concept in attempts to facilitate and sustain improvements to formative assessment practices.

Model to show conceptual framework for research.

![Diagram](image-url)
This model depicts the ‘think tank’ as the area where such psychological theories and educational research are developed. It is also the area where government initiatives originate. The classroom is the context where teachers and pupils interact to achieve learning within the zone of proximal development (Vygotsky, 1978). Formative assessment is seen as arising within the ‘think tank’ to become embedded as an intrinsic part of the learning process within the classroom. The model is cyclic, recognising that research and practice are mutually dependent, each impacting on the other.

**Research findings**

**Findings from Phase 1**

Within Phase 1 of the research, the quantitative analysis of results went a considerable way towards answering the first two research questions. Analysis of the rating scale showed a range of teacher perceptions about formative assessment, with overall teacher agreement with a majority of the perception statements (12 of the 14 dependent variables). Within this general trend, however, the strength of teacher agreement varied, revealing a broad range and diversity of views about the concept, value and practical implications of formative assessment. Furthermore, relationships were identified between some of these perceptions and variables such as school phase and length of experience.

**What are teachers’ perceptions of formative assessment?**

In order to answer the first research question, descriptive statistics were used to display the data. This evidence about what teachers’ perceptions of formative assessment actually are is summarised in Table 2. It shows the responses of all teachers to the perception statements, regardless of school phase or length of experience. Findings are ranked with highest agreement levels placed at the top of the chart.

Table 1 shows that the highest level of agreement from teachers was with the statement that ‘all children can make progress in their learning’. 98.5 per cent of teachers agreed with this statement, 1.5 per cent of teachers expressed uncertainty and no teachers disagreed. High levels of agreement (above 90 per cent) were also expressed in relation to statements 18, 14 and 16. Teachers therefore strongly agreed that they used evidence from formative assessment to develop their teaching. They saw the aim of formative assessment as to promote learning. They viewed making mistakes as an enhancement to learning.

There was a negative skew, showing overall agreement, in all the dependent variables with the exception of perception statement 7, ‘Children have the maturity to understand their learning goals’ (51.5 per cent disagreement) and perception statement 17, ‘Children can often say why their work is good or why they don’t understand’ (61.5 per cent disagreement). Thus overall, teachers did not appear to recognise the potential value of self-assessment and ‘pupil voice’ which emerges from
the evidence of Black et al (2002). The greatest uncertainty expressed by teachers was in relation to statement 8: ‘I feel able to influence attitudes among my colleagues in school’ (38.8 per cent uncertainty). Possible reasons for this finding would be explored in more depth in Phase 2.

Teachers’ perceptions of formative assessment

<table>
<thead>
<tr>
<th>Perception statement (dependent variable)</th>
<th>Agree per cent</th>
<th>Unsure per cent</th>
<th>Disagree per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per 1: All children can make progress in learning.</td>
<td>98.5</td>
<td>1.5</td>
<td>0</td>
</tr>
<tr>
<td>Per 18: I use evidence from formative assessment to develop my teaching.</td>
<td>95.4</td>
<td>3.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Per 14: The aim of formative assessment is to promote learning.</td>
<td>92.4</td>
<td>6.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Per 16: Making mistakes enhances learning.</td>
<td>92.4</td>
<td>1.5</td>
<td>6.1</td>
</tr>
<tr>
<td>Per 11: Baseline assessment is essential to the monitoring of progress in learning.</td>
<td>88.1</td>
<td>9.0</td>
<td>3.0</td>
</tr>
<tr>
<td>Per 12: Children need to know why they are being assessed.</td>
<td>81.8</td>
<td>4.5</td>
<td>13.6</td>
</tr>
<tr>
<td>Per 13: Formative assessment practices are frequently shared among staff at my school.</td>
<td>71.2</td>
<td>15.2</td>
<td>13.6</td>
</tr>
<tr>
<td>Per 5: NC test results can be useful to inform new learning targets</td>
<td>70.8</td>
<td>16.9</td>
<td>12.3</td>
</tr>
<tr>
<td>Per 2: I teach children how to assess the work of their peers against agreed criteria.</td>
<td>62.7</td>
<td>20.3</td>
<td>16.9</td>
</tr>
<tr>
<td>Per 3: Parents have much to contribute to the formative assessment process.</td>
<td>60.9</td>
<td>29.7</td>
<td>9.4</td>
</tr>
<tr>
<td>Per 6: I would benefit from more training in the use of formative assessment techniques.</td>
<td>56.9</td>
<td>21.5</td>
<td>21.5</td>
</tr>
<tr>
<td>Per 8: I feel able to influence attitudes among my colleagues in school.</td>
<td>52.2</td>
<td>38.8</td>
<td>9.0</td>
</tr>
<tr>
<td>Per 7: Children have the maturity to understand their learning goals.</td>
<td>34.8</td>
<td>13.6</td>
<td>51.5</td>
</tr>
<tr>
<td>Per 17: Children can often say why their work is good or why they don’t understand.</td>
<td>24.6</td>
<td>13.8</td>
<td>61.5</td>
</tr>
</tbody>
</table>

Table 1

In order to answer the second research question the next step was to investigate similarities, differences and trends in relation to the two independent variables: Phase and Experience.
Do relationships exist between teachers’ perceptions and factors such as school phase and length of experience and if so, what is the nature of such relationships?

The relationship between Phase and teachers’ perceptions of formative assessment

Although teachers in lower and middle schools showed considerable agreement across eight of the dependent variables (perception statements), differences were found in relation to six. These differences were explored in more depth and findings are summarised in Table 2. This evidence suggests that relationships do exist between certain aspects of teachers’ perceptions and school phase. For example, lower school teachers showed higher levels of agreement than middle school teachers with perception statements 13, ‘Formative assessment practices are frequently shared among staff in my school’ and 14, ‘The aim of formative assessment is to promote learning’. The highest discrepancy between the two groups of teachers was in relation to perception statement 13: while 78.8 per cent of lower school teachers agreed with this statement, agreement among middle school teachers was much lower, at 42.9 per cent.

Differences in teacher perceptions according to school phase.

| Perception statement | Phase: Lower |  | Phase: Middle |  |
|----------------------|--------------|------------------|------------------|
|                      | Agree (per cent) | Unsure (per cent) | Disagree (per cent) | Agree (per cent) | Unsure (per cent) | Disagree (per cent) |
| Per 13: Collaboration | 78.8 | 11.5 | 9.6 | 42.9 | 28.6 | 28.6 |
| Per 14: Aims | 96.2 | 1.9 | 1.9 | 78.6 | 21.4 | 0 |
| Per 2: Peer | 57.4 | 23.4 | 19.1 | 83.3 | 8.3 | 8.3 |
| Per 16: Mistakes | 90.4 | 1.9 | 7.7 | 100 | 0 | 0 |
| Per 17: Why | 27.5 | 15.7 | 56.9 | 14.3 | 7.1 | 78.6 |
| Per 6: Training | 57.7 | 17.3 | 25.0 | 53.8 | 38.5 | 7.7 |

Table 2

A key question which arises from these findings is why do these differences in perceptions arise between lower and middle school teachers? One of the aims of Phase 2 of the research would be to investigate this further.
The relationship between Experience and teachers’ perceptions of formative assessment

The evidence suggests that relationships also exist between certain aspects of teacher perceptions and length of teacher experience. For example, an overall trend of increasing teacher agreement with increasing experience was found in three of the dependent variables. These were: ‘Baseline assessment is essential to the monitoring of progress in learning (Per 11); ‘Parents have much to contribute to the formative assessment process’ (Per 3); ‘I use evidence from formative assessment to develop my teaching’ (Per 18). Within three of the dependent variables there were substantially higher levels of agreement within one category of teacher experience. This was the case within perception statement 5: ‘NC tests can be useful to inform new learning targets’. The highest level of agreement here (92.3 per cent) was from teachers with 4 – 10 years experience.

Experience and teachers’ levels of agreement with perception statements.

<table>
<thead>
<tr>
<th>Perception statement (Dep variable)</th>
<th>Experience 1 (0 – 3 yrs) per cent</th>
<th>Experience 2 (4 – 10 yrs) per cent</th>
<th>Experience 3 (11 – 20 yrs) per cent</th>
<th>Experience 4 (over 20 yrs) per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per 11: Baseline</td>
<td>61.5</td>
<td>92.3</td>
<td>94.4</td>
<td>95.7</td>
</tr>
<tr>
<td>Per 3: Parents</td>
<td>30.8</td>
<td>69.2</td>
<td>52.9</td>
<td>81.0</td>
</tr>
<tr>
<td>Per 18: Evidence</td>
<td>92.3</td>
<td>91.7</td>
<td>94.4</td>
<td>100</td>
</tr>
<tr>
<td>Per 6: Training</td>
<td>69.2</td>
<td>66.7</td>
<td>55.6</td>
<td>45.5</td>
</tr>
<tr>
<td>Per 5: NC tests</td>
<td>53.8</td>
<td>92.3</td>
<td>61.1</td>
<td>76.2</td>
</tr>
<tr>
<td>Per 2: Peer</td>
<td>54.5</td>
<td>58.3</td>
<td>55.6</td>
<td>77.8</td>
</tr>
<tr>
<td>Per 14: Aims</td>
<td>84.6</td>
<td>83.3</td>
<td>100</td>
<td>95.7</td>
</tr>
<tr>
<td>Per 8: Influence</td>
<td>15.4</td>
<td>53.8</td>
<td>66.7</td>
<td>60.9</td>
</tr>
<tr>
<td>Per 17: Why</td>
<td>30.8</td>
<td>33.3</td>
<td>29.4</td>
<td>13.0</td>
</tr>
</tbody>
</table>

Table 3

As with School Phase, similar questions arise about possible reasons for these findings. Such questions were considered to be highly relevant to the study and would form the main focus of the Phase 2 research.
Findings from Phase 2

Qualitative analysis of data collected in Phase 2 was conducted to answer the third research question.

Which aspects of formative assessment emerge as important to teachers?

When analysing the results of the interview situation it was important to consider the existence of implicit as well as explicit findings, such as body language and tone of voice. It is as important here to be aware of what teachers did not say as well as what they did say. While Amanda (SENCO with 3 years experience) was very willing to share her views, the two more experienced teachers (Inclusion Manager and Head Teacher) appeared more guarded in their responses, possibly as a result of their maturity, their high-status roles within their schools or their awareness of the researcher’s role within the local authority. Within social constructivist theory it is recognised that teachers’ views such as these may express ‘multiple and conflicting versions’ of reality (Rubin and Rubin, 2005). It should also be recognised that the interpretation itself is a personal construction of reality. The potential for researcher bias therefore needs to be recognised, although considerable effort was made to minimise this by using systematic and rigorous analytical methods.

Five key themes were identified from thematic analysis of interview data. These were: accountability; prescription and ownership; school context, culture and collaboration; leadership and management; the complexity of teaching and learning. The implications of evidence emerging within each theme will be analysed in more depth in the Discussion.

Discussion

This discussion sets out to analyse the key findings arising from this study. It aims to consider these in relation to the conceptual framework, drawing conclusions about teachers’ perceptions of formative assessment and implications for theory and practice.

Accountability

Accountability is a key issue which emerged strongly within Phase 2 of the research, although no question referred directly to it in the questionnaire. Both Penny (Inclusive Manager) and Jane (Head) commented on potential pressures felt by Year 2 and Year 6 teachers in response to the government requirement to undertake summative assessment in the form of end of Key Stage SATs. They saw such accountability as having the potential to inhibit the use of more formative assessment methods, particularly in these two year groups. Amanda (SENCO), the youngest and least experienced of the three teachers, expressed considerable anxiety about her feeling of accountability to the government via the governors of her middle school. She perceived a situation where there were conflicting demands on her time leading to
some aspects of her teaching practices having to be ‘sacrificed’ in favour of others. This led to her statement that, although she appreciated its value, she felt unable to ‘do it (formative assessment) properly’.

These findings suggest that teachers’ perceptions of both formative and formal government imposed assessment may not altered much since Torrance and Pryor’s (1998) study. The view of SATs as imposed, formalised and stressful expressed by teachers within their study is supported within the current study by teacher comments referring to ‘handing down’ of directives, pressure and levels of achievement. Of more concern is that such accountability may have led to an either / or situation, where teachers feel forced to choose between the two types of assessment. By undertaking formal assessment requirements to satisfy accountability, they may feel they have to forego the use of formative assessment practices. It appears that the imposition of school targets for children’s attainment levels may be creating continued tension and anxiety among teachers. In terms of the conceptual framework, government initiatives may be having more influence on classroom practice than evidence from educational or psychological research.

**Prescription and ownership.**

Prescription and ownership are key issues which emerged in relation to both children and teachers. The survey revealed that the majority of teachers disagreed with perception statements which supported children’s ownership of their own learning. For example, 51.5 per cent of teachers disagreed with the statement that ‘Children have the maturity to understand their learning goals’ (Per 7).

Within teacher interviews, prescription and ownership emerged as inter-related, yet conflicting concepts. This is most clearly illustrated in relation to the issue of the professional development of teachers. Amanda described an ‘Assessment for Learning’ course she had attended which focused on government produced materials for AfL (2004b), aimed at pupils in Key Stage 3. She had found the course ‘informative’ and had ‘filtered it down’ to the staff at her school, emulating a ‘top-down’ model. In contrast, Jane was very concerned about the issue of ownership and the need for an awareness of the complexity of the teacher’s role by INSET providers:

‘I think whoever’s running these courses, whoever’s talking about the way to move forward needs to be a current classroom practitioner. You know, not somebody who’s imposing it on teachers but rather somebody who is actually working within the classroom and knows how it works and how you manage it within a class of 25 to 30 children of different abilities’.

These examples support the view of Watkins and Mortimore (1999) that ‘advice’ can be relatively short-lived within the school system. The views of these teachers support the findings of Watkins and Mortimore (1999) that, for sustainability, the professional development of teachers should be: embedded in practice, modified according to local conditions and culture and avoid being too prescriptive. Here we see one of the more experienced teachers expressing her opinion that more account needs to be taken of classroom practice. This has important implications for the integration of theory and practice as depicted in the conceptual framework. It appears that in this particular
school context, the cyclic process of developing research and practice might only be operating ‘one way’ and that practice is not adequately being fed back into research.

**School culture, context and collaboration.**

The sharing of beliefs among teachers may help to explain their assumptions about how children think and learn (Bruner, 1996) as well as having important implications for professional development (Black et al, 2005). Results arising from the survey show that 71.2 per cent of teachers agreed with the statement that ‘Formative assessment practices are frequently shared among staff at my school’ (Per 13).

Finding time to talk about formative assessment and other issues relating to children’s learning emerged as highly valued by the three teachers. As Head of a small school, Jane valued opportunities to network with other schools within the learning community. She felt that this prevented staff from becoming ‘insular’ and enabled them to share their successes and learn from each other, developing their confidence. Jane talked of a ‘culture of united understanding’ which she aimed to foster. She depicted this as based on trust and the establishment of a climate for ‘open discussion’. Amanda suggested that this might be easier to achieve in lower schools which were smaller and might offer ‘greater flexibility’ than middle schools.

One area which emerged as important within this research, yet was not obvious within the literature about formative assessment, is that of collaboration between teachers and parents. The views of teachers about the role of parents in formative assessment were sought in the survey and findings suggest a moderate level of agreement (60.9 per cent) with the statement, ‘Parents have much to contribute to the formative assessment process’ (Per 3). However, Penny saw working with parents as very important in order to communicate about approaches used. One example she gave was explaining the rationale for using mistakes to inform new learning. In a community where many parents spoke little English and may have had little experience of the English education system this was seen to be very important in fostering pupil learning. The conceptual framework may therefore be limited in its interpretation of the classroom as the learning context: this may need to be broadened to take into account the parent and significant others as ‘teachers’ within a much broader cultural context.

**School leadership and management issues.**

These issues are seen by teachers as having considerable impact on formative assessment and its relationship with children’s learning.

The issue of influence was raised within the survey in relation to the question ‘I feel able to influence attitudes among my colleagues in school’ (Per 8). When agreement levels for this statement were considered, a trend emerged which showed teacher agreement increasing from 15.4 per cent to 60.9 per cent across the categories of experience. A relationship between length of teaching experience and teachers’ perceptions of their ability to influence attitudes among their colleagues, can be clearly seen. Increasing experience is often associated with increasing authority and
the more experienced teachers may have been in positions within their schools where they were more able to use such influence. They may also have developed greater confidence and self-assurance through their individual experiences.

The potential for unity or conflict between managerial and learning functions at a systemic level was also raised within this research. Amanda presented a school context where managerial and learning functions are clearly in conflict. She described how a pupil assessment tracking system within the school is used to set expectations for individual pupils and monitor their attainment. Amanda was concerned that this system is not integrated with SEN systems for the identification and intervention of individual needs already being used in the school. Children identified as having special needs are automatically classified as underachieving on the new system because they have not achieved the national average. This judgement is based on government targets for attainment criteria set for the school rather than on the assessment of pupils’ previous performance. Thus formative assessment practices do not appear to be integrated into the overall assessment system currently in place within the school. The tensions and frustration she expressed in relation to accountability clearly illustrate this conflict.

This situation relates closely to the findings of Black et al (2005) whereby some assessment practices are seen to inhibit effective learning. These include ‘a lack of consistency and failure to critically review assessment procedures within schools’. A key issue arising from Black et al’s (2005) work is that, in order to effect real changes in formative assessment practices, details need to be worked out at institutional as well as personal levels. Once more, the conceptual framework may need to be extended to recognise multiple levels of influence where learning is concerned, taking on board the issue of teacher learning and development and recognising a complex range of educational contexts operating from micro to macro level within and beyond each school.

The complexity of teaching and learning.

Survey findings appear to support and qualify those of Black et al (1998 b, 2005): while the potential exists for formative assessment practices to enhance learning, actual practices remain weak. It is clear from the survey results that teachers recognised that the aim of formative assessment is to promote learning (Per 14, 92.4 per cent agreement). The vast majority (95.4 per cent) of teachers surveyed also claimed to use formative assessment to develop their teaching. However, they were less positive about the specific use of certain aspects of formative assessment practices such as peer assessment (Per 2, 62.7 per cent agreement) and self-assessment (Per 17, 24.6 per cent agreement). These findings suggest that, while teachers recognised the potential of formative assessment to enhance learning, this may not necessarily be translated into practice.

Within Phase 2 of the research, this complexity of the teaching process was acknowledged by Penny. It was when she began to perceive the teaching task through the eyes of a student teacher, that she recognised both the complexity of the task and how much her expertise as a teacher had developed. As Bruner (1996) has pointed
out, attempts to change and develop educational practices should start from the existing ‘folk psychology’ of teachers. It is hoped that the findings of the current study go some way towards establishing what this might be. Once teachers’ views have been thus established the aim would be to encourage reflection and to build on these to improve future practice, as the conceptual framework suggests.

**Conclusion**

*Implications for educational policy and practice.*

The use of this mixed method model went a considerable way towards identifying issues of relevance to the further development of formative assessment in schools. Moreover, the findings of this research support those of Black et al (1998 b, 2005) that there is still some way to go in improving formative assessment practices to support learning in schools. Evidence from this study suggests that conflicts and tensions in schools may be inhibiting the further development of formative assessment practices. On one hand, the value and complexity of formative assessment within the learning process is acknowledged within learning theory. On the other hand, government directives do not currently appear to recognise this complexity. Such directives also appear to overlook the whole school context, within which teachers, managers and school leaders must balance conflicting demands. It is not therefore surprising that teachers within this study expressed a broad range of views about formative assessment, including expressions of optimism as well as frustration.

**Recommendations for future practice**

Important implications for pedagogical practice have thus emerged at theoretical, practical evidential levels and these support recommendations for future practice which include:

- The need for teachers to have an in-depth pedagogical knowledge of how children learn and of their own pupils’ learning needs.
- The use of assessment practices which encourage deep, rather than superficial, knowledge and understanding.
- An emphasis on quality rather than the quantity of work produced.
- The assessment of progress against personal rather than normative frameworks.
- The analysis of assessment data to inform new learning.
- An emphasis on sharing advice with pupils rather than giving marks to inform future learning.
- Making sure feedback to pupils is based on learning rather than managerial functions.
- Allowing pupils to share responsibility for their own learning.
- Undertaking a regular critical review of whole-school assessment procedures.
Turning recommendations into practice.

It has already been acknowledged that, though worthwhile, the further development of formative assessment practices in schools may be complex and difficult. Constructing a set of recommendations is relatively straightforward, but if teachers are to achieve more than ‘lip-service’ to them, support is needed to effect real and lasting change. To do this it may be necessary to shift the emphasis well beyond change at individual teacher level to whole-school systemic levels. Findings from this research suggest that consistency is needed within whole school cultures about what ‘good’ practice actually is. Teachers need to be given ownership of their own professional development. School management structures need to be aligned with learning functions and offer support to individual teachers.

Offering advice as part of a local government advisory service is therefore not enough. The process of developing formative assessment practices is as important as knowing what should be developed. The model used by Black et al (2005), is a good example of collaborative working between researchers and teachers. This model was based on the assumption that teachers do have considerable knowledge of children’s learning needs and of their own learning needs. From the outset teachers were given choice and ownership of aspects of formative assessment they would like to develop in their own classrooms. Throughout the project they were supported by the research team through CPD and regular visits and given time to share their experiences of experimentation with each other. A critical finding of this research is the claim made by Black et al (2005) that, over time, teachers’ beliefs about their classroom practices changed and they claimed to feel more empowered. This model demonstrates considerable strength for bringing about improvements to formative assessment practices in schools.

One clear message which emerges from this study is that teachers’ perceptions are important to the understanding and implementation of formative assessment. Some key implications for pedagogical practice have been identified and discussed. These findings could now be used as starting point for further educational and psychological research, as the conceptual model suggests. This research supports the view that, in order to bring about real and lasting improvements to children’s learning, teachers’ voices need to be heard.
References


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