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# Assessment for Learning in International Contexts: approaches and challenges in researching teacher values and practices

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Assessment for Learning in International Contexts: approaches and challenges in researching teacher values and practices

#### **Abstract**

The Assessment for Learning in International Contexts (ALIC) project sought to extend knowledge around teachers' understandings of Assessment for Learning (AfL). Using a modified version of a survey item devised by James and Pedder (2006) for use with teachers in England, evidence was gathered about the assessment practices that were highly valued by teachers across international contexts. The extent of congruence between these values and teachers' reported classroom practices was explored and dimensions of teachers' assessment practices were derived through factor analysis. Whilst there was considerable congruence across the ALIC cohort of teachers and data sets derived from English teachers, particularly with respect to the items that have positive values-practice gaps, there were some interesting differences. Two components were derived from factor analysis, rather than the three derived by James and Pedder (2006). These components were 'Making learning explicit and promoting learner autonomy' and 'Student control of assessment processes'.

#### Keywords

Assessment for learning; formative assessment; Learning How to Learn; survey; international comparisons

#### Introduction

The Assessment for Learning in International Contexts (ALIC) project used a modified version of a survey - employed with teachers in England (James and Pedder, 2006; Pedder, 2006; Winterbottom, Taber, Brindley, Fisher, Finney & Riga, 2008a, 2008b) - to gather data from teachers working in schools in Argentina, India, Indonesia, Nigeria and Saudi Arabia. The ALIC survey probed the nature of the school culture through a series of statements about learning and assessment at pupil, teacher and whole school level, enabling the construction of a profile of the teachers' conceptualisations of Assessment for Learning (AfL) across these countries.

The study involved teachers with direct links to XXXX and, in all, 242 ALIC surveys were completed and returned by teachers across the sample; the survey return rate differed for each nation. The responses from participant countries were combined, creating an 'international data set' for the purpose of comparison with similar data gathered in the context of a single Western country.

The work reported in this paper was carried out to:

1) test the modified survey tool to examine its efficacy, validity and reliability in contexts where specific 'Learning How to Learn' projects (James and Pedder, 2006) have not been undertaken and where there may be alternative perceptions of the purpose and practices of formative assessment to those in England.

2) establish whether the combined responses drawn from several non-Western countries simply mirrored the English data reported by James and Pedder (2006), or whether there were distinct differences. The expectation was that, were the latter to be the case, this work might be a staging post for later, more detailed work with specific

countries (including the analysis of educational cultures, language and local circumstance that this would entail).

The hope was that this project would have both a developmental purpose that has not been addressed in other academic studies; and also that it could, dependent upon the findings, eventually lead to further analysis and the possibility of targeted teacher development in formative assessment for specific countries. The ALIC project was thus conceived as a first 'fact-finding' step in this possible process.

Before the profile of teachers' conceptualisations of AfL drawn from the data set is explored - enabling an assessment of whether these hopes for subsequent work might have a firm foundation - it is useful to consider the central theoretical perspectives upon which the survey was formulated.

## Assessment for learning: links to teacher values and practices

The language of AfL belongs to a seemingly ubiquitous educational discourse, being used across diverse social, economic and cultural boundaries (Swaffield, 2011). It is either seen as synonymous with formative assessment, and thus includes such practices as targeted observation or marking of work by teachers to develop students' next steps in learning (Wiliam, Lee, Harrison, and Black, 2004; James and Pedder, 2006); or it is seen as describing only those components of formative assessment that focus on students' involvement in their own learning. Here, we use the term as synonymous with formative assessment.

AfL has been characterised as 'not a test but a process' (Popham, 2008, p.6), focused on providing qualitative insights into student understanding, for both the teacher and the students themselves to act upon (Shepherd, 2008; Black and Wiliam 1998). James

and Pedder (2006) use the definition from the Assessment Reform Group (ARG) to underpin their work on assessment values and practices:

'Assessment for Learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there.' (ARG, 2002, pp.1-2)

Thus, AfL practices are seen as having the explicit purpose of employing assessment evidence in order to promote learning. Importantly, assessment evidence is not seen as the exclusive preserve of teachers – the expectation is that AfL is 'part of everyday practice by students, teachers and peers that seeks, reflects on and responds to information from dialogue, demonstration and observation in ways that enhance learning' (Third International Conference on Assessment for learning, cited in Klenowski, 2009).

Given such definitions, formative assessment has been conceptualised as consisting of five key strategies, intended to provide contingent information upon which both teachers and students can act to progress student learning. These are:

- '1. Clarifying and sharing learning intentions and criteria for success;
- 2. Engineering effective classroom discussions and other learning tasks that elicit evidence of student understanding;
- 3. Providing feedback that moves learners forward;
- 4. Activating students as instructional resources for one another; and
- 5. Activating students as the owners of their own learning.'

(Black and Wiliam, 2009, p.8)

These broad strategies have an underlying connection to instructional practices designed to foster metacognitive awareness in students. They are strongly rooted in social constructivist perspectives on learning, which emphasise the relationship between collective thinking and the development of individual cognition; that is, between the 'intermental', usually facilitated by talk, and the 'intramental' construction of knowledge and understanding (Vygotsky, 1962, 1978). There are connections to the importance of a dialogic pedagogy (Mortimer & Scott, 2003), to children's active collaboration in group activities (Kutnick, Sebba, Blatchford, Galton & Thorpe, 2005) and to the idea of the teacher as facilitator rather than transmitter of knowledge.

More controversially perhaps, it might be argued that - particularly through the use of the practices associated with the final two strategies outlined by Black and Wiliam (2009) - an emphasis is placed on developing a mastery (or learning) orientation in students (Dweck, 2000; Elliot, McGregor & Holly, 2001: Ames & Archer, 1988) Black and Wiliam's framework does not entail a *commitment* to the development of a mastery orientation, and a combination of performance and learning orientation have

been argued as components of an effective learner (Midgley, Kaplan & Middleton, 2001); nevertheless it seems that the emphasis placed in the strategies on a metacognitive understanding of students' own learning emphasises the importance of the characteristics of effort, persistence and critical judgement that are associated with a mastery orientation. Certainly, a trajectory towards self-regulated learning through the use of the strategies, with appropriate scaffolding related to contingent position of learner, is both implicit and explicit (Zimmerman, 2008).

As a consequence of these underlying pedagogic foundations of AfL, the involvement of engaged, reflective professional teachers is seen as central to the development of classroom-based, formative assessment practices (Black, McCormick, James and Pedder, 2006). This suggests that what teachers value in instructional and assessment practices really does matter if change to classroom practice is the intention. When examining the issue of values and practices in England, and possible gaps between the two, the 'Learning How to Learn' Project surveyed 558 teachers in England (James and Pedder, 2006; Pedder, 2006). Results revealed three underlying dimensions of assessment practice. These were:

i: *Making learning explicit* (defined as eliciting, clarifying and responding to evidence of learning; working with students to develop a positive learning orientation)

ii: *Promoting learning autonomy* (defined as a widening of scope for students to take on greater independence over their learning objectives and the assessment of their own and each other's work)

iii: *Performance orientation* (defined as a concern to help students comply with performance goals prescribed by the curriculum through closed questioning and measured by marks and grades).

This research found sizeable values-practice gaps on two dimensions that appear to be in tension (*promoting learning autonomy* and *performance orientation*) along with evidence that over half of the sample were unable to sustain practices across all dimensions in line with their values. Further evidence of the existence of these three dimensions of assessment practice, and the presence of values-practice gaps, was found by Winterbottom *et al.* (2008a, b) when they used the 'Learning How to Learn' survey tool with English teacher trainees.

#### The ALIC Research

The ALIC project started from a straightforward premise, seeking to explore the efficacy of an adapted version of the James and Pedder (2006) survey tool for exploring assessment values and practices amongst teachers in non-Western contexts. The project was designed to examine what the use of the tool might reveal about teacher values and practice gaps, and whether similar dimensions of assessment practice to those revealed by James and Pedder in England would be evidenced. The initial hypothesis was that there would be a variation between the group of teachers drawn from the five non-Western countries and the English sample researched by James and Pedder.

This hypothesis was predicated upon research showing that, with diverse national and regional educational priorities, and the different languages within which educational ideas are interpreted, the development and embedding of successful assessment for learning practices seems to vary in differing national contexts (Johnson and Burdett 2010; Akyeampong, Pryor, and Ampiah, 2006). Johnson and Burdett's (2010) study highlights that the ambitions of educators to engage with assessment for learning principles might be hindered by factors such as teacher competency levels or the

promotion of conflicting theories of learning. Understanding the issue of teacher practice across diverse contexts can also be confounded by the way that terminology is contextually situated. Smith (1995) shows that 'commonly used' language can be open to varying interpretations in different contexts, suggesting that the seemingly ubiquitous nature of the language of formative assessment within international educational discourse may mask a poor shared understanding of the underlying meanings around such phraseology. This is supported by Andrews (2007), who notes that '...concepts assumed to be universally understood were found to have contextually located meanings' (p.490 and p.495-496), so that differing cultures may ascribe different levels of value to the strategies associated with AfL, and may evidence these differing values through differing classroom practices.

With these exploratory ideas forming the basis of the research, the following broadly framed research questions informed the project, with the aim of extending current understanding about the assessment values and practices of a set of teachers in international contexts:

- 1. What assessment practices do teachers in the five ALIC countries value?
- 2. What are the gaps between the ALIC teachers' assessment values and practices, and how do these compare to teachers in England?
- 3. What are the ALIC teachers' 'dimensions of assessment practice' and how do these compare to teachers in England?

It is important to re-state that the focus in this paper is on the data gathered from the teachers across five countries, rather than focusing on individual nations.

The structure of the paper is rather unusual, in that – after an overview of methods, sample and the approach to analysis - it attempts to fully report and discuss the findings in relation to each of the research questions, drawing together overall conclusions and implications at the end. This approach enables a richer exploration of each question than might otherwise have been the case.

## Methods, sample and approach to analysis

The ALIC project gathered survey data from teachers working in five non-Western countries. Sample selection and recruitment took into account a number of pragmatic considerations. In particular, the project focused on teachers working in schools and colleges with a strong identification with XXXX, with whom there were established means of communication. The project used XXXX's regional organisation structure to aid data gathering. Nations with the greatest number of schools and colleges with active XXXX links were identified across each of XXXX's global regions; a decision was made not to recruit multiple nations from the same region. This helped to maximise the geographical diversity of the sample and to potentially maximise the number of returns. This sampling approach suggested that the project should focus on teachers in Argentina, India, Indonesia, Nigeria and Saudi Arabia. An appeal for participation from at least two teachers from each approached school or college was intended to bring a sense of collegiality to the process for individual teachers, further enhancing the sample size. It is appreciated that schools that have chosen to link to XXXX may be unrepresentative of a national sample of schools.

The research team used a modified version of a validated survey that had been used to explore the assessment values and practices of teachers in England (James and Pedder, 2006). In electing to work with an existing questionnaire, the research team

considered whether the James and Pedder survey instrument was sufficiently relevant to the ALIC research questions, whether it was appropriate to use in the different international contexts, and whether it facilitated collection of this information with maximal reliability.

Broadly interpreted, validity is the degree to which the survey instrument measures what it is supposed to measure. Clearly, it is important to ensure the validity of any data collection instrument. A validated questionnaire of the kind used here reduces bias by detecting ambiguities and misinterpretations which can then be minimized thereby emphasizing a high degree of 'specific' objectivity. A number of actions and procedures (based on Alderson's (1992) recommendations) were undertaken as part of the validation of the revised questionnaire:

- Consideration of underlying constructs and advance research questions prior to redrafting original survey items
- Exploration of how every survey item confirms (or disconfirms) underlying hypotheses
- Prediction of teacher responses to compare with actual responses (in pilot stage),
   followed by any necessary adjustments
- Expert and interested stakeholder judgements of the draft survey (including peer and teacher reviews)

Whilst the use of validated methods (Alderson, 1992; Hawkey, 2006) should contribute positively to the validity of a research design, it is important to bear in mind that validation is context specific and has consequences if a research method is applied to a situation for which it was not designed. Clearly, in using an existing validated questionnaire it was important to ensure that any subsequent textual amendments to questionnaire items continued to maintain the integrity and validity of the original instrument. The ALIC project took the constructs that underpinned the original James and Pedder (2006) teacher survey and worked to ensure that these were accessible to teachers working across a variety of national contexts (see Alderson's (1992) first recommendation above). A critical review of each of the James and

Pedder survey items was undertaken to ensure that the language of the survey (both the instructions accompanying the survey and the survey items themselves) was accessible to teachers for whom English may not necessarily be a first language. The language of each survey item was examined and, where necessary, modified; the salience of the construct contained within each item was retained. An original and a revised item are illustrated in Figure 1, with a complete list of the survey items included in Appendix 1.

#### {Insert Figure 1: An example of an original and a revised teacher survey item}

In order to ensure that the survey language was accessible to all teachers a draft of the ALIC survey was piloted with a small group of teachers (for whom English was not a first language) in the sample nations in order to validate its format. Once it was complete, the survey was distributed via a dedicated website to schools and colleges in the five sample nations. 613 schools and colleges were contacted directly in three of the five study nations (Argentina: 186 schools/colleges; India: 288 schools/colleges; Indonesia: 135 schools/colleges). Taking into consideration local arrangements in Saudi Arabia and Nigeria, indirect contacts were sent to schools and colleges through British Council offices.

242 ALIC surveys were returned from teachers in 149 schools, with five containing no indication of teacher nationality. The data in Appendix 2 show that most teachers who returned the surveys were female (69%), had more than 5 years of teaching experience (83%), and were teaching 15-18 year old students (62%). There was a spread of subjects taught by teachers in the sample, although Science/Maths and English teachers made up the majority of the sample (67%). It is worth noting that the initial process of 'teacher subject' coding defined those teachers who taught multiple

subjects as 'not specified', partly explaining the relatively large number of teachers who appear in this category.

The survey return rate differed for each nation (i.e. the proportion of schools and colleges from which surveys were received compared with the number of schools and colleges approached). This national difference might reflect the national variation in the methods used to approach the schools and colleges. Figure 2 shows that Argentina had the highest school return rate (29.0%), followed by India (21.8%) and Indonesia (16.3%).

## {Insert Figure 2: ALIC returned responses by nation and school/college}

The national survey data (Appendix 3) demonstrate variances in the profile of teacher demographics. Teachers from Argentina and Saudi Arabia were the most experienced; a majority of teachers in both nations had more than 10 years of teaching experience. The length of time that teachers had worked in their current school/college also differed across the nations. India was the only nation where the majority of teachers had worked in their current school/college for less than five years. The profile of subjects taught differed across the teachers in the different sampled nations. Teachers of English formed the largest group of respondents in Argentina, contrasting with the profile of teachers from the other nations where Science/Maths teachers formed the largest group.

The first data analysis stage involved descriptive analysis of the survey return data, in order to provide a 'flavour' of specific responses by teachers to the survey items. In order to explore comparisons between teachers' values and practices, a gap analysis compared the extent to which teachers' reported practices matched their reported

values; any discrepancies were thus indicated between their professional assessment aspirations and their actual practices. The second stage of data analysis replicated some of the statistical methods used by James and Pedder (2006) and Pedder (2006) in their work with teachers in England. Though this is described in detail later in the paper, it is useful briefly to explain at this point that their exploratory factor analysis with varimax rotation was duplicated in this study; however, no replication of cluster analysis was attempted for presentation here.

Findings and Discussion

<u>Research Question 1:</u> What assessment practices do teachers in the five ALIC countries value?

James and Pedder (2006, p.10-11) point to the 'danger that (a) values dimension is underplayed and that assessment for learning becomes characterised as merely another set of unexamined classroom strategies...'. We would strongly support this assertion and have already argued that what teachers' value can have a profound influence on practice; this is despite the presence of various constraints on professional practice, evident in countries across the world, which may militate against the embedding of values into practice. Here we review the findings of the ALIC survey with respect to teacher values.

The data in Appendix 4 show that two-thirds of classroom assessment practices listed in the survey were highly valued by a majority of responding teachers, with 20 of the 30 survey items being considered to be 'important/crucial' for at least 88% of the surveyed teachers. The data also show that there were seven practices that were highly valued by fewer than three-quarters of teachers; this 75% percentage was taken

as a benchmark below which items are considered not to be highly valued by the teacher group when taken as a whole.

Of the highly valued practices in the ALIC data, 10 items relate to teachers' concern with learning more about student learning. These items relate to using evidence of learning to influence planning (item 1); encouraging discussion, including the clarifying of learning objectives, lesson purposes and success criteria (items 11, 21, 25 and 28); open questioning (item 18); and providing formative feedback to respond to evidence of learning and encourage pupil involvement in learning (items 4, 10, 20, and 15). Item 22 ('Assessment of students' work is mainly in the form of comments') might be considered to be linked to these items, but it is not given the same value by teachers.

Partly building on the work of Torrance and Pryor (1998), James and Pedder (2006, p.119) suggest that items in their original survey relate to four themes:

- 'convergent assessment tendencies', with an emphasis on linear and curriculum-oriented planning, closed questioning and summative feedback;
- 'divergent assessment approaches', with students taking forward their own learning objectives and peer assessment practices (here, James and Pedder extend Torrance and Pryor's definition, linking peer assessment to the intention in divergent assessment to find out what the student knows);
- the promotion of guided self-assessment and opportunities for students to assess their own work and learning;
- teachers learning more about their students' learning.

Certainly, a concern with understanding student's learning, and acting upon that understanding, lies at the heart of the five key AfL strategies discussed at the start of this report. If '...formative assessment is concerned with the creation of, and capitalization upon, 'moments of contingency' in instruction for the purpose of the regulation of learning processes' (Black and William, 2009, p.10), then learning more about student's learning is vital. Yet in a context that includes several non-Western countries, what is considered to be an appropriate 'assessment repertoire' might include approaches that are not bounded by Black and William's (2009) key strategies. Thus item 22 ('Assessment of students' work is mainly in the form of comments') is included, yet with relatively low value attributed to it compared to the rest of the items in the group. This may indicate that formative feedback is seen as primarily to be given in a spoken, rather than a written, form.

Teachers also placed a very high value on practices that relate to the development of pupil agency in assessment and learning. These items are connected to such things as providing opportunities for students to assess their own work and learning (items 13, 14 and 24) and develop independence in learning (item 9); a concern that students should engage with mistakes and problems in their work (items 15, 16 and 25), should build on their strengths (items 14 and 26) and should view effort as important (item 27); and that students should be encouraged to think critically about their learning (items 17 and 30). The very high value placed on such practices suggests a concern to develop students' metacognitive understanding of their own learning (Zimmerman, 2008). Thus there is an emphasis on the learning orientation of the student, rather than on performance orientation (Dweck, 2000), together with a focus on students developing learning strategies that work best for them in a particular circumstance. Placing high value on these items suggests that teachers aspire to move

students towards self-regulated learning, through appropriate scaffolding related to the contingent position of the learner. Further, it again seems to suggest a clear concern amongst teachers to include in their teaching and assessment repertoire the intentions of the five strategies of formative assessment (Black and Wiliam, 2009).

Item 3 ('The main thing I look for in my assessments is whether my students know, understand or can do key sections of the curriculum') is also highly valued and is the only item that may possibly be interpreted as sitting outside the other two item groupings. This item might be interpreted as being linked with teachers' concerns around learning more about student learning or the development of pupil agency. On the other hand, this item might also sit comfortably within a group of items associated with curriculum-oriented concerns, and James and Pedder (2006) place its precursor item in their own study with items that suggest a performance focus. But the prescribed curriculum does not have to be a driver for a particular pedagogy and the focus on student understanding embedded in item 3 suggests that it might easily be placed with several groupings of items, not just those related to 'convergent assessment tendencies'. Thus it seems there is little contradiction amongst the highly valued items in the survey as a whole, though the meanings attributed to item 3 deserve further investigation.

With respect to the least valued items, only one item fell below 50% in terms of being valued. This was item 5 ('I tell students how well they have done compared to others in the class'), an item which emphasises the development of a competitive classroom ethos and a strong focus on performance orientation (Dweck, 2000). Overall, a group of items that were least valued by teachers were those that might be linked to teacher control of assessment processes and a focus on performance goals. These included items associated with curriculum orientated planning (items 2, 23); closed

questioning (item 7); and the provision of summative feedback, including marks and grades (item 12). Item 8 ('My assessments are more useful than formal assessments') could be placed in this group of items, but it might be interpreted in a number of different ways; it may be seen as stressing the primacy of the individual teacher (perhaps regardless of evidence from pupils) or it might be strongly linked to the idea that considered formative assessment has more to offer than testing. Given this ambivalence, it is perhaps not surprising to see this item somewhat equivocally valued by teachers.

A second group of items less valued by teachers were those associated with student control over assessment processes, including students taking forward their own learning objectives (item 6) and developing peer assessment practices (items 19 and 29). These 'divergent approaches to assessment' (Torrance and Pryor, 1998, p.153-154) are clearly not of high value to these groups of teachers, and mirror the views of teachers in England (James and Pedder, 2006; Winterbottom *et al.*, 2008a, 2008b). They might be considered to be an end point to be aimed at in terms of AfL practices, even in countries and schools where such practices are embedded, so their relatively low attributed value across nations is unsurprising.

If these, then, are the values held by the ALIC teachers, what of the gaps between values and practices?

<u>Research Question 2</u>: What are the gaps between the ALIC teachers' assessment values and practices, and how do these compare to teachers in England?

Here we explore the values-practice gaps that are evident in the ALIC data and compare these to the data derived from the 'Learning How to Learn' project (James and Pedder, 2006).

The values-practice gap analysis data for the whole ALIC teacher sample shows the level of match between what teachers value about their assessment work and the extent to which they feel they enact these values in practice. Table 1 makes a comparison of teachers who placed a high value ('crucial'/'important') on a particular practice against the percentage suggesting it was 'often true' or 'mostly true' in their own practice. This data only relates to items where the values-practices gap is of +/- 5 points or greater. Where there were any mismatches between assessment values and practices, a positive difference suggests that the teachers value the assessment practice more than they actually enact it. On the other hand, a negative mismatch suggests that the teachers were enacting practices that they did not value.

# {Insert Table 1: Comparing ALIC teachers' assessment values and practices}

Here we consider first the items with a positive values-practice gap, suggesting that the teachers value the assessment practice more than they actually enact it. For items associated with the development of pupil agency (26, 17, 13, 24, 14) there is an apparent gap between values and practices of between +5 and +17%. Item 26 has the largest gap here, suggesting that, whilst about half of the teachers feel that their interaction with students enables them to build on their strengths, there is a strong aspiration to develop this aspect of their work. The group of items (6, 19 and 29) associated with giving students more control over assessment processes were not particularly highly valued, but the positive values practice gap suggests that, again, there is an aspiration to develop strategies in this area. Teachers seem much more comfortable with assessment approaches linked to developing their own understanding of students' learning than they are with promoting opportunities for students to assess their own work and think critically about their learning. This is

perhaps unsurprising, as building such elements into assessment repertoires is not easy.

With respect to the items with a negative gap, indicating well-used practices that are less in tune with teacher values, the largest gap occurs with respect to item 12, the provision of feedback in the form of marks and grades. The strong drivers of accountability cultures (both on a micro-level in such things as direct accountability to parents and on a macro-level in terms of school, regional and national data comparisons) clearly have an influence here (Black and William, 2005). But it is nevertheless interesting to see how little comparative value is given to this practice compared to the level of practice itself. For Item 23 the gap is relatively small; nevertheless, it seems clear that teachers would like some flexibility with respect to the setting of learning objectives, beyond the constraints of the prescribed curriculum.

Before any comparison of the data from this research and that from the Learning How to Learn project in England can be presented, it is important to be clear that the ALIC survey relied on self-reporting by participants. Unlike James and Pedder (2006), the ALIC team were unable to corroborate statements made in the survey through empirical sampling of teacher practices. And with respect to AfL strategies, others studies have found that teachers can be less confident than they claim to be in putting actual strategies in place (Sach, 2012). Nevertheless, if 'teachers' professional consciousness is a...fundamental determinant of teaching practices' (Yung, 2002), and if teacher's conceptions of learning are central to understanding and enacting assessment practices (Marshall and Drummond (2006), then it is crucial to consider how they view their practices and to examine their aspirations for the future.

James and Pedder compare teacher values and practices in England in the following way:

### {Insert Table 2: Comparing teachers' assessment values and practices in England}

Comparing this to Table 1 for the global ALIC data, there are several points of interest. The first is that there is considerable congruence across the two data sets with respect to the items that have positive values-practice gaps (items 6, 26, 17, 29, 13, 24, 19). This seems to suggest that many aspirations for developing practice may be shared by teachers in this Western context and in a range of non-Western contexts. However, the data also shows that, for these 'shared' items, the values-practice gaps in England are substantially larger in every case than they are for the ALIC teachers. Since there are not great differences in the value ascribed to these practices across the compared groups, it seems that for ALIC teachers the estimation of how closely aligned their practice is to their values presents a somewhat more optimistic picture of alignment. There may be several reasons for this, ranging from an accurate representation of reality to the idea that reflexive awareness of practice differs across the two groups. Whilst James and Pedder (2006) were able to examine practice empirically this was not possible for the ALIC teachers; without such an examination the reasons for these gap differences is at this stage speculative. With respect to negative values-practice gaps, item 23 is shared across the English and ALIC teacher groups, both of whom see their practice with respect to the setting of learning objectives more guided by the subject curriculum than they would like. Again, this is more prevalent for English teachers than for those in other countries.

Also interesting in a comparison of the values-practice gaps across the English and ALIC teacher groups is where items differ. Items 30 and 9 only appear as significant

in the 'Learning How to Learn' project gap analysis data and items 22, 14 and 12 only appear as significant in the ALIC project gap analysis data. Though ALIC teachers value item 30 highly, they profess no significant gap between their values and practices, whilst for English teachers this is the largest recorded positive gap. This may be a function of the exclusion of the words 'learning how to learn' in the ALIC item; this term was felt to be far too specific to England, but it perhaps encompasses a range of practices that item 30 in the ALIC survey does not. This translating of terms was, indeed, one of the major challenges to the ALIC team in the construction of the survey. Another item that only appears in the 'Learning How to Learn' project gap analysis data is item 9. Again the strong congruence between the stated values and practices across the ALIC teachers is arresting, given the +19% gap for this item across the teacher group in England.

Items 22 and 14 (positive gap) and item 12 (negative gap) only appear as significant in the ALIC project gap analysis data. Though the gap for item 22 is small it is interesting to note that comments on students' work are seen as valuable and that a majority of ALIC teachers (70%) feel that they are engaging in this practice. Similarly a large majority (93%) feel that they are helping students to understand and develop their strengths, though there is an aspiration for this aspect of their pedagogy to develop. The assessment of work using marks and grades, associated with the development of a performance orientation in students, is not highly valued but it is a common practice across the ALIC teacher group.

So let us turn now to the identification of 'dimensions of assessment practice'.

Research Question 3: What are the 'dimensions of assessment practice' for the ALIC teachers, and how do these compare to teachers in England?

The next data analysis stage of the ALIC project replicated the statistical methods used by James and Pedder (2006) and Pedder (2006) in their work with teachers in England. Identification of the dimensions or 'factors' of assessment practice involved the use of factor analysis with varimax rotation (with Kaiser Normalization) with the teachers' practice scores for Section A items of the survey (shown as Scale X - "Your assessment practices", in Appendix 1).

Exploratory factor analysis (EFA) was conducted on the sample of data to explore the underlying traits or factors. EFA, traditionally, has been used to explore the possible underlying factor structure of a set of observed variables without imposing a preconceived structure on the outcome.

The Varimax rotation method was used here to maximise the dispersion of loadings within factors. Working in this way, James and Pedder's study (2006) resulted in a three factor solution supported by statistical considerations and by repeated comparisons of different solutions referring to tables of eigen values and scree plots. Confidence in the validity of this three factor structure, and their conceptualisation of it, was enhanced through an analysis of teachers' interview accounts and classroom observation data. In addition, teachers and school leaders involved in the project recognized and affirmed these dimensions as capturing relevant and important aspects of classroom practice. This lent support to James and Pedder's claim to the phenomenological as well as the concurrent validity of these dimensions.

The generation of dimensions from the ALIC data set took into account only those teacher practice items which achieved primary factor loadings of more than 0.3 and which did not load on to more than one dimension/factor. The factor analysis described here relates to a simple structure pattern of loadings, with several variables correlating highly with each factor and only one factor correlating highly with each variable. The complexity of variables by examining loadings for a variable across factors is the focus of a separate study.

As the first step, in order to establish appropriateness of the factor analysis application, Kaiser-Meyer-Olkin sampling adequacy test and Barlett's test of sphericity were conducted (Table 3).

# {Insert Table 3: Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity}

The KMO sampling adequacy test statistic is 0.792, which is higher than the threshold value of 0.5 (Hair, Anderson, Tatham, & Black, 1998) indicating that factor analysis is appropriate. The Barlett's test of sphericity statistic is <0.001. This indicates that the null hypothesis that the correlation matrix is an identity-matrix is rejected at the 0.001 level of significance.

For simplicity of reporting, orthogonal rotation is favoured, requiring only the use of the loading matrix (Tabachnick and Fidell, 2001, p.622). Mirroring these analysis methods, items 4, 5, 11, 20, 24 and 26 were removed from the analyses for this project since they loaded onto multiple dimensions. A similar approach to factor removal was adopted by James and Pedder (2006).

One principal consideration fundamental to factor analysis is determining the number of factors to retain. Traditionally, researchers depend on one or more of the following criteria to determine how many factors to retain: the variance explained by each factor; the eigenvalue for each factor; examination of the scree plot of the factors and eigenvalues.

Consideration of these criteria suggested that two dimensions of teacher practice could be identified in the ALIC survey data (Figure 3).

# {Insert Figure 3: Eigen values and scree plot for the ALIC survey data}

Further analysis showed that the first practice dimension comprised 10 items (6, 9, 10, 13, 14, 15, 16, 17, 21 and 30), with the second dimension consisting of two items (19 and 29). Table 4 shows the factor loadings for the items in each of the practice dimensions.

# {Insert Table 4: Teacher assessment practice dimensions: survey items and factor loadings}

ANOVA tests of between subjects effects and multiple comparison post hoc tests were then carried out to explore whether any teacher variables<sup>1</sup> had an influence on the way that teachers responded to the survey items. ANOVA tested the difference between mean scores on sub-tests created by adding scores on items in each factor.

ANOVA tests of between-subject effects suggested that none of the teacher grouping variables explained the differences between the ways that teachers responded to the survey items. In other words, variables such as the nationality of the teachers or the

<sup>&</sup>lt;sup>1</sup> The teacher grouping variable were: teacher nationality, gender, levels of experience of teaching in general and levels of experience within the current school/college, age of students taught and subject taught.

subjects that they taught were not a significant influence on the characteristics of the dimensions.

In their own work using this approach, James and Pedder (2006) and Pedder (2006) identify three dimensions or 'factors' of assessment practice: These were:

<u>Factor 1</u>: interpreted as items relating to 'making learning explicit' (items in order of factor loading - 15, 11, 16, 21, 10, 14, 20, 1, 27, 18)

'Eliciting, clarifying and responding to evidence of learning; working with students to develop a positive learning orientation'

<u>Factor 2</u>: interpreted as items relating to 'promoting learning autonomy' (items in order of factor loading – 19, 29, 24, 13, 6)

'A widening of scope for students to take on greater independence over their learning objectives and the assessment of their own and each other's work'

<u>Factor 3</u>: interpreted as items relating to 'performance orientation' (items in order of factor loading – 12, 7, 23, 3, 2, 8)

'A concern to help students comply with performance goals prescribed by the curriculum through closed questioning and measured by marks and grades' (James & Pedder, 2006, p122-123)

The ALIC data revealed two significant dimensions of assessment practice, as detailed above. For purposes of comparison, Table 6 also presents the items that appear in the three James and Pedder dimensions and which overlap with the two ALIC dimensions. It is interesting to note that at a superficial level there is some degree of overlap between the items that appear in both the first and second

dimensions of both the ALIC and the James and Pedder analyses. This might suggest a degree of commonality in the nature of these dimensions. It is also noteworthy that none of the items which comprise James and Pedder's third dimension (performance orientation) appear in the ALIC dimensions.

# {Insert Table 5: A comparison of teacher assessment practice dimensions in James and Pedder (2006) and ALIC}

ALIC Dimension 1 practices relate to the ways in which learning is made explicit by teachers and to attempts to promote learner autonomy. We have interpreted this dimension as relating to the development of student agency in learning and assessment.

ALIC Dimension 2 practices are interpreted as being related to student control of assessment processes. These two items focus on developing peer assessment practices, such as paired marking of work against given criteria.

ALIC Dimension 1, comprising 10 items, is described as 'Making learning explicit and promoting learner autonomy: developing pupil agency in assessment and learning; learning more about student learning'. Though this dimension has similarities with Dimension 1 from James and Pedder (2006), the associated items give greater emphasis to the development of pupil agency, both in their learning and in their ability to engage with assessment of their learning. Agency might be defined as the ability of the individual to actively interpret, re-organise and draw upon developed knowledge, and this dimension highlights the role of the teacher in helping students to be active agents in their own learning. Agency is linked to feelings of self-efficacy (Seifert, 2004; Dweck, 2000) - confidence and competence with respect to performance, usually in a given field such as science – and to metacognitive

awareness (Whitebread & Pino Pasternak, 2010). Though this clearly links to James and Pedder's concept of 'developing a positive orientation' it seems to go further, strongly emphasising teachers discussing with pupils how their learning might be improved; the provision of guidance on how students might review their work; and encouraging students to think about how they learn best.

James and Pedder's second factor is described as 'Promoting learner autonomy: a widening of scope for students to take on greater independence over their learning objectives and the assessment of their own and each other's work'. In the ALIC data, items associated with this factor are associated with Dimension 1, strongly reinforcing the association between pupil autonomy and agency. Further, ALIC Dimension 1 indicates that the development of pupil agency and autonomy is linked to teachers' willingness to discover more about their pupils' performance and learning needs in relation to teaching.

ALIC Dimension 2 contains just two items (19, 29) and is described as 'Student control of assessment processes'. These items describe practices that relate to teacher involvement in facilitating students' assessments of one another's work and it is perhaps unsurprising that they are associated together in a single dimension. A strong aspiration of formative assessment practice in England is that students should engage in peer assessment as a 'gateway' to self-assessment and, by implication, achieve a better metacognitive understanding of their own learning (Black and Wiliam, 2009). In order for this to happen, it seems that the role of the teacher – for example, in helping to define the criteria by which students may judge the work of their peers – is crucial.

Perhaps the most interesting disparity between this set of ALIC dimensions and the dimensions revealed in the work of James and Pedder (2006) is the absence of anything broadly equivalent to their Dimension 3 - performance orientation. There is no significant association of items equivalent to those interpreted by James and Pedder (2006, p122-123) as denoting 'a concern to help students comply with performance goals prescribed by the curriculum through closed questioning and measured by marks and grades'. This may be because some of these items in the ALIC survey could be open to interpretation, depending on the specific context of a teacher carrying out the survey. For example, and as has been mentioned previously, it is difficult to see how curriculum-oriented assessment (item 3) would not be carried out in any classroom, regardless of whether formative assessment practices are in place. Further, Item 8 in particular seems problematic. The wording of this item (My assessments are more useful than formal assessments) might well be interpreted as indicating the primacy of formative assessment over summative in the day-to-day work of the teacher; however, what might constitute a 'formal assessment' is by no means clear here, whilst 'useful' is also open to interpretation. Thus, these two items at least may produce different contextualised responses (both national and school-byschool) that are likely to influence their association with other items in the factor analysis.

#### **Conclusions and Implications**

The survey data as it has been interpreted thus far seems to indicate a number of issues. Given the global prominence given to AfL by governments, assessment agencies, researchers and others, it is perhaps unsurprising to find that, in very broad terms, the items most valued by the ALIC teachers demonstrate the considerable cachet placed upon practices linked positively to formative assessment principles and

strategies. Certainly it seems that teachers have a particular concern with learning more about student learning and with promoting the development of pupil agency in assessment and learning. These concerns not only form the foundation of Black and Wiliam's (2009) five key strategies, they might also be seen more globally as being related to what teachers think about 'positive' pedagogy (Wiliam and Thompson, 2007). Importantly, the idea of pedagogy as we use it here includes individual and culturally-informed perspectives on communicative approaches (Mercer and Littleton, 2007); classroom participation structures (Cazden, 1986); the importance of students' metacognitive understanding of learning (Dweck, 2000; Zimmerman, 2008); the centrality of student interaction and collaboration (Kutnick et al., 2005); and the accountability structures that impinge on the work of the teacher (Black *et al.*, 2003).

Concern with such aspects of pedagogy, and associated assessment practices, suggests that the survey data reflect the views of professionals who are engaged, reflective and responsible. But it does seem clear that an individual teacher's response to the survey items is also likely to be considerably nuanced and strongly related to prevailing contextual imperatives. This, then, suggests more detailed investigation in specific national contexts may reap rewards for both researchers and teachers. Certainly, it seems clear that an analysis of practices 'on the ground' is necessary if the nuances of national practices are to be fully revealed.

In examining the dimensions of practice revealed by factor analysis, the dimensions that are revealed seem to encapsulate many features of an effective pedagogy – one in which there is a focus on making learning explicit to students, promoting learner reflection and autonomy, maintaining a focus on outcomes and encouraging individual progress. These themes cohere well with the features of effective teaching

that are outlined in a recent literature review of UK and international research (Rowe, Wilkin and Wilson, 2012).

The two assessment practice dimensions identified in the ALIC data reveal an association of items that place a heavy emphasis on guiding students to understand their own learning and on the value of peer- and self-assessment in this process. The significant items in these dimensions map strongly onto those for James and Pedder's (2006) first two assessment practice dimensions, though their significance and association vary and therefore suggest rather different terms to describe the ALIC dimensions. As mentioned above, the real surprise was that, using the same statistical procedures as James and Pedder, there is no dimension in the ALIC data that mirrors their performance orientation category. It has already been suggested that there may be an 'item translation' issue at work here, either in terms of the literal translation of meaning from the James and Pedder (2006) survey, or in terms of teacher interpretation of meaning for specific items. However, it is equally possible that no such translation issue came into play for the ALIC teachers and that the dimensions represented in their data correctly represent the significant association of survey items.

This issue, of trying to understand the intent underlying the teachers' responses to survey items, raises other challenges that have been implied already in this paper. Collecting distributed data brings with it a plethora of practical and methodological challenges, which include the appropriate selection of a relevant teacher group and the acknowledgement of the bias in any selection process. In particular, the limitations of self-reporting by teachers are clear in comparison to the checking mechanisms that were put in place in the James and Pedder (2006) study. In discussing such challenges, it should also be acknowledged that there are subjective

elements in the decision making processes that inform the choice of analysis methods. Here, James and Pedder (2006) made clear the decisions that informed their construction of survey items, relating to the underlying intention to explore understandings of 'Learning How to Learn'; in the ALIC survey these decisions naturally had a strong bearing on the nature of the 'translation' of survey items for teachers. Finally, the challenges of interpreting the outcomes of analysis are considered at various points in this paper and should not be underestimated in work of this nature.

Despite these challenges, however, the ALIC survey has produced some interesting responses which suggest that the ubiquitous language of formative assessment is open to different interpretations in different global contexts. Though this paper does not attempt to tease out national differences, it already seems clear that, in working with teachers across national boundaries, a precursor to development work must be the rigorous examination of practice so that the meaning of key ideas for all stakeholders is explored. This would enable teachers to celebrate elements of their practice that are leading to positive learner outcomes and understand that there are potential strategies by which they might expand their 'pedagogic repertoires' (Alexander, 2008) to the benefit of their students. Surveys such as that used in the ALIC project, conducted on a national basis across different types of schools, might open the way to such conversations.

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## **Appendix 1: ALIC survey items**

### Scale X

Your assessment practices

## (About you)

- 1 Never true
- 2 Rarely true
- 3 Often true
- 4 Mostly true

#### Scale Y

How important are assessment practices for creating opportunities for pupils to learn?

## (About your values)

- 1 Not at all important
- 2 Of limited importance
- 3 Important
- 4 Crucial
- 1. Assessment gives me useful evidence of my students' understandings which I use to plan my next lesson.
- The subject curriculum I have to teach is a greater influence on what I will do in my next lesson than how well my students did in the last lesson.
- 3. The main thing I look for in my assessments is whether my students know, understand or can do key sections of the curriculum.
- 4. The feedback that my students get helps them improve.
- 5. I tell students how well they have done compared to others in the class.
- 6. I give students the opportunity to determine their own learning objectives.
- 7. I use questions mainly to get factual knowledge from my students.
- 8. My assessments are more useful than formal assessments.
- My classroom assessment practices help students to learn independently.
- 10. I tell students how well they have done compared with their own earlier performance.

- 11. I talk about learning objectives with students in ways they understand.
- 12. Assessment of students' work is mainly given as marks and grades.
- 13. I give guidance to help my students assess their own work.
- 14. I tell students about their strengths and help them to develop these strengths.
- 15. I help students find ways of solving problems that they have in their learning.
- 16. I encourage students to see their mistakes as valuable learning opportunities.
- 17. I help students to think about how they learn best.
- 18. I use questions mainly so that my students give me reasons and explanations.
- 19. I give guidance to help students to assess one another's work.
- 20. I find students' errors are helpful because they give me information about how students are thinking.
- 21. I help students to understand the learning purposes of each lesson or series of lessons.
- 22. Assessment of students' work is mainly in the form of comments.
- 23. The subject curriculum determines students' learning objectives.
- 24. I give guidance to help students assess their own learning.
- 25. My assessment is mainly about what students know, understand and can do.
- 26. I help students to plan the next steps in their learning.
- 27. I think student effort is important when I assess their learning.
- 28. I talk about assessment criteria with students in ways that they understand.
- 29. I give students the opportunity to assess each other's work.
- 30. I often talk to students about how they can improve their learning.

Appendix 2: ALIC survey participant data by nation

		Arge	entina	Inc	dia	Indo	nesi a	Nigeria			udi abia
		N	%	N	%	N	%	N	%	N	%
Survey Returns		81	33	116	48	29	12	2	0.0	9	<0. 0
Schools/ Colleges		51	35	61	42	22	15	2	0.0	8	<0. 0
Teacher Gender	Male	10	12.3	38	32.8	16	55.2	2	100.0	4	44.4
	Female	70	86.4	78	67.2	13	44.8	0	0.0	5	55.6
Teacher Experience	Less than 2 Years	0	0.0	1	0.9	1	3.4	0	0.0	0	0.0
	2-4 Years	3	3.7	15	12.9	1	3.4	0	0.0	1	11.1
	5-10 Years	16	19.8	34	29.3	12	41.4	1	50.0	2	22.2
	11-20 Years	27	33.3	40	34.5	12	41.4	0	0.0	5	55.6
	21+ Years	31	38.3	17	14.7	1	3.4	1	50.0	1	11.1
	Not specified	4	4.9	9	7.8	2	6.9	0	0.0	0	0.0
Experience in	Less than 2										
<b>Current School</b>	Years	9	11.1	35	30.2	4	13.8	1	50.0	2	22.2
	2-4 Years	12	14.8	33	28.4	6	20.7	0	0.0	0	0.0
	5-10 Years	24	29.6	30	25.9	12	41.4	1	50.0	6	66.7
	11-20 Years	23	28.4	3	2.6	3	10.3	0	0.0	1	11.1
	21+ Years	8	9.9	3	2.6	0	0.0	0	0.0	0	0.0
	Not specified	5	6.2	12	10. 3	4	13. 8	0	0.0	0	0.0
Age Taught	10 and Under	3	3.7	2	1.7	2	6.9	0	0.0	0	0.0
	11-14	21	25.9	34	29. 3	4	13. 8	0	0.0	1	11. 1

	15-18	53	65.4	68	58.6	19	65.5	2	100.0	8	88.9
	18+	1	1.2	1	.9	0	0.0	0	0.0	0	0.0
	Not specified	3	3.7	11	9.5	4	13.8	0	0.0	0	0.0
Subject	~									-	
Taught	Science/Maths	7	8.6	59	50.9	12	41.4	1	50.0	6	66.7
	English	47	58.0	22	19.0	6	20.7	1	50.0	1	11.1
	Languages	0	0.0	2	1.7	0	0.0	0	0.0	0	0.0
	Social Sciences/ Humanities	13	16.0	17	14.7	1	3.4	0	0.0	1	11.1
	Arts	3	3.7	0	0.0	0	0.0	0	0.0	0	0.0
	Not specified	11	13.6	16	13.8	10	34.5	0	0.0	1	11.1

Appendix 3: Comparing ALIC teachers' classroom-based assessment values and practices - percentage of positive responses across five national contexts

		ational context	
			Practices
		Values (%)	(%)
		important/cr	often/most
Item		ucial	ly
100111		0.0101	-7
	I often talk to students about how they can		
30	improve their learning	100	97
	The feedback that my students get helps them		
4	improve	99	96
	T1 1 4 1 4 C 1 4 C 1 4 4 C 1 4 4 6 1 4 4 6 1 4 4 6 1 4 4 6 1 4 4 6 1 4 4 6 1 4 4 6 1 6 1		
1.5	I help students find ways of solving problems	0.0	0.5
15	that they have in their learning	99	95
	I tell students about their strengths and help		
14	them to develop these strengths	98	93
17	them to develop these strengths	96	93
	I encourage students to see their mistakes as		
16	valuable learning opportunities	98	94
	S III		-
	Assessment gives me useful evidence of my		
	students' understandings which I use to plan my		
1	next lesson	97	98
	I talk about learning objectives with students in		
11	ways they understand	97	94
	I tell students how well they have done		
10		06	05
10	compared with their own earlier performance	96	95
	I help students to think about how they learn		
17	best	96	87
1,7			07
	I think student effort is important when I assess		
27	their learning	96	99
	I talk about assessment criteria with students in		
28	ways that they understand	96	95
	I.C. data dantal amana and 1 de 11 and a d		
	*		
•		0	
20	thinking	95	97
	My classroom assessment practices help		
9	students to learn independently	94	94
	ESTUDENTS TO TEATH INDEDENDENTLY	ı 9 <del>4</del>	) 7 <del>1</del>
	I talk about assessment criteria with students in ways that they understand  I find students' errors are helpful because they give me information about how students are thinking		

13	I give guidance to help my students assess their own work	94	86
24	I give guidance to help students assess their own learning	94	86
3	The main thing I look for in my assessments is whether my students know, understand or can do key sections of the curriculum	93	95
21	I help students to understand the learning purposes of each lesson or series of lessons	92	88
25	My assessment is mainly about what students know, understand and can do	89	88
18	I use questions mainly so that my students give me reasons and explanations	88	89
26	I help students to plan the next steps in their learning	88	71
8	My assessments are more useful than formal assessments	81	77
23	The subject curriculum determines students' learning objectives	81	88
22	Assessment of students' work is mainly in the form of comments	75	70
6	I give students the opportunity to determine their own learning objectives	73	55
29	I give students the opportunity to assess each other's work	73	65
19	I give guidance to help students to assess one another's work	70	64
	The subject curriculum I have to teach is a greater influence on what I will do in my next lesson than how well my students did in the last		
2	lesson	64	60
12	Assessment of students' work is mainly given as marks and grades	64	77
12		64	77

7	I use questions mainly to get factual knowledge from my students	52	54
5	I tell students how well they have done compared to others in the class	26	29



# **Appendix 1:ALIC survey items**

### Scale X

Your assessment practices

(About you)

1 Never true; 2 Rarely true; 3 Often true; 4 Mostly true

#### Scale Y

How important are assessment practices for creating opportunities for pupils to learn? (About your values)

1 Not at all important; 2 Of limited importance; 3 Important; 4 Crucial

- 1. Assessment gives me useful evidence of my students' understandings which I use to plan my next lesson.
- 2. The subject curriculum I have to teach is a greater influence on what I will do in my next lesson than how well my students did in the last lesson.
- 3. The main thing I look for in my assessments is whether my students know, understand or can do key sections of the curriculum.
- 4. The feedback that my students get helps them improve.
- 5. I tell students how well they have done compared to others in the class.
- 6. I give students the opportunity to determine their own learning objectives.
- 7. I use questions mainly to get factual knowledge from my students.
- 8. My assessments are more useful than formal assessments.
- 9. My classroom assessment practices help students to learn independently.
- 10. I tell students how well they have done compared with their own earlier performance.
- 11. I talk about learning objectives with students in ways they understand.
- 12. Assessment of students' work is mainly given as marks and grades.
- 13. I give guidance to help my students assess their own work.
- 14. I tell students about their strengths and help them to develop these strengths.
- 15. I help students find ways of solving problems that they have in their learning.
- 16. I encourage students to see their mistakes as valuable learning opportunities.
- 17. I help students to think about how they learn best.
- 18. I use questions mainly so that my students give me reasons and explanations.
- 19. I give guidance to help students to assess one another's work.
- 20. I find students' errors are helpful because they give me information about how students are thinking.
- 21. I help students to understand the learning purposes of each lesson or series of lessons.
- 22. Assessment of students' work is mainly in the form of comments.
- 23. The subject curriculum determines students' learning objectives.
- 24. I give guidance to help students assess their own learning.
- 25. My assessment is mainly about what students know, understand and can do.
- 26. I help students to plan the next steps in their learning.
- 27. I think student effort is important when I assess their learning.
- 28. I talk about assessment criteria with students in ways that they understand.
- 29. I give students the opportunity to assess each other's work.
- 30. I often talk to students about how they can improve their learning.

Appendix 2: ALIC survey participant data

		N	%
<b>Teacher Gender</b>	Male	70	28.9
	Female	166	68.6
	Not specified	6	2.5
<b>Teacher Experience</b>	Less than 2 Years	2	0.8
-	2-4 Years	20	8.3
	5-10 Years	65	26.9
	11-20 Years	84	34.7
	21+ Years	52	21.5
	Not specified	19	7.9
Experience in Current School	Less than 2 Years	51	21.1
	2-4 Years	52	21.5
	5-10 Years	73	30.2
	11-20 Years	30	12.4
	21+ Years	11	4.5
	Not specified	25	10.3
Age Taught	10 and Under	7	2.9
	11-14	60	24.8
	15-18	151	62.4
	18+	2	.8
	Not specified	22	9.1
Subject Taught	Science/Maths	85	35.1
, and the second	English	77	31.8
	Languages	2	.8
	Social Sciences/Humanities	32	13.2
	Arts	3	1 2
	Not specified	43	17.8
Total	50 5000000		100
Total		242	10

Appendix 3: ALIC survey participant data by nation

		Arge	entina	Inc	dia	Indo		Nigeria			udi abia
		N	%	N	%	N	%	N	%	N	%
Survey		81	33	116	48	29	12	2	0.0	9	<0.
Returns		01	33	110	70	29	12		0.0	,	0
Schools/		51	35	61	42	22	15	2	0.0	8	<0.
Colleges		31	33	01	72	22	13	2	0.0	0	0
Teacher		10	12.3	38	32.8	16	55.2	2	100.0	4	44.4
Gender	Male	10	12.3	30	32.0	10	33.2		100.0	4	44.4
	Female	70	86.4	78	67.2	13	44.8	0	0.0	5	55.6
Teacher	Less than 2										
Experience	Years	0	0.0	1	0.9	1	3.4	0	0.0	0	0.0
	2-4 Years	3	3.7	15	12.9	1	3.4	0	0.0	1	11.1
	5-10 Years	16	19.8	34	29.3	12	41.4	1	50.0	2	22.2
	11-20 Years	27	33.3	40	34.5	12	41.4	0	0.0	5	55.6
	21+ Years	31	38.3	17	14.7	1	3.4	1	50.0	1	11.1
	Not specified	4	4.9	9	7.8	2	6.9	0	0.0	0	0.0
Experience in	Less than 2										
Current School	Years	9	11.1	35	30.2	4	13.8	1	50.0	2	22.2
	2-4 Years	12	14.8	33	28.4	6	20.7	0	0.0	0	0.0
	5-10 Years	24	29.6	30	25.9	12	41.4	1	50.0	6	66.7
	11-20 Years	23	28.4	3	2.6	3	10.3	0	0.0	1	11.1
	21+ Years	8	9.9	3	2.6	0	0.0	0	0.0	0	0.0
					10.		13.				
	Not specified	5	6.2	12	3	4	8	0	0.0	0	0.0
Age Taught	10 and Under	3	3.7	2	1.7	2	6.9	0	0.0	0	0.0
					29.		13.				11.
	11-14	21	25.9	34	3	4	8	0	0.0	1	1
	15-18	53	65.4	68	58.6	19	65.5	2	100.0	8	88.9
	18+	1	1.2	1	.9	0	0.0	0	0.0	0	0.0
	Not specified	3	3.7	11	9.5	4	13.8	0	0.0	0	0.0
Subject				_			_				
Taught	Science/Maths	7	8.6	59	50.9	12	41.4	1	50.0	6	66.7
	English	47	58.0	22	19.0	6	20.7	1	50.0	1	11.1
	Languages	0	0.0	2	1.7	0	0.0	0	0.0	0	0.0
	Social Sciences/										
	Humanities	13	16.0	17	14.7	1	3.4	0	0.0	1	11.1
	Arts	3	3.7	0	0.0	0	0.0	0	0.0	0	0.0
	Not specified	11	13.6	16	13.8	10	34.5	0	0.0	1	11.1

Appendix 4: Comparing ALIC teachers' classroom-based assessment values and practices - percentage of positive responses across five national contexts

	T	T	
			Practices
		Values (%)	(%)
τ.		important/cr	often/most
Item		ucial	ly
20	I often talk to students about how they can	100	0.7
30	improve their learning	100	97
4	The feedback that my students get helps them	00	0.6
4	improve	99	96
1.5	I help students find ways of solving problems	00	0.5
15	that they have in their learning	99	95
1.4	I tell students about their strengths and help	0.0	0.2
14	them to develop these strengths	98	93
1.6	I encourage students to see their mistakes as	0.0	0.4
16	valuable learning opportunities	98	94
	Assessment gives me useful evidence of my		
4	students' understandings which I use to plan my	07	0.0
1	next lesson	97	98
1.1	I talk about learning objectives with students in	0.7	0.4
11	ways they understand	97	94
10	I tell students how well they have done	0.6	0.5
10	compared with their own earlier performance	96	95
1.77	I help students to think about how they learn	0.6	0.7
17	best	96	87
27	I think student effort is important when I assess	0.6	00
27	their learning	96	99
20	I talk about assessment criteria with students in	-06	0.5
28	ways that they understand	96	95
	I find students' errors are helpful because they		
20	give me information about how students are	05	07
20	thinking	95	97
0	My classroom assessment practices help	0.4	0.4
9	students to learn independently	94	94
12	I give guidance to help my students assess their	04	96
13	own work	94	86
24	I give guidance to help students assess their own	94	06
24	learning	94	86
	The main thing I look for in my assessments is		
2	whether my students know, understand or can	02	05
3	do key sections of the curriculum	93	95
21	I help students to understand the learning	02	00
21	purposes of each lesson or series of lessons	92	88
25	My assessment is mainly about what students	90	00
25	know, understand and can do	89	88
18	I use questions mainly so that my students give	88	89

	ma rangong and avalanations		
	me reasons and explanations  I help students to plan the next steps in their		
26	learning	88	71
	My assessments are more useful than formal	00	/ 1
8	assessments	81	77
	The subject curriculum determines students'		,,
23	learning objectives	81	88
	Assessment of students' work is mainly in the	<del>-</del>	
22	form of comments	75	70
	I give students the opportunity to determine		
6	their own learning objectives	73	55
	I give students the opportunity to assess each		
29	other's work	73	65
	I give guidance to help students to assess one		
19	another's work	70	64
	The subject curriculum I have to teach is a		
	greater influence on what I will do in my next		
	lesson than how well my students did in the last		60
2	lesson	64	60
10	Assessment of students' work is mainly given as	6.4	7.7
12	marks and grades	64	77
7	I use questions mainly to get factual knowledge	50	5.4
7	from my students	52	54
5	I tell students how well they have done	26	29
	compared to others in the class	20	29

Original Survey Item

	Scal	le X		Assessment		Scale	Y	
Your	assessn	nent pra	ctices	practices	How imp	ortant are a	assessmen	ıt
					practices	for creating	g opportu	nities
					for stude	nts to learn'	?	
	(Abou	t You)						
						(About you	r values)	
Never	Rarely	Often	Mostly		Not at all	Of limited	Important	Crucial
true	true	true	true		important	importance		
				The next lesson I				
				teach is				
				determined more				
				by the prescribed				
				curriculum than				
				by how well my				
				students did in the				
				last lesson.				ļ

Revised Survey Item

110 1150	C Sur V	ey richi						
Never	Rarely	Often	Mostly		Not at all	Of limited	Important	Crucial
true	true	true	true		important	importance		
				The subject				
				curriculum I have				
				to teach is a				
				greater influence				
				on what I will do				
				in my next lesson				
				than how well my				
				students did in the				
				last lesson.				

Figure 1: An example of an original and a revised teacher survey item

Figure 2: ALIC returned responses by nation and school/college

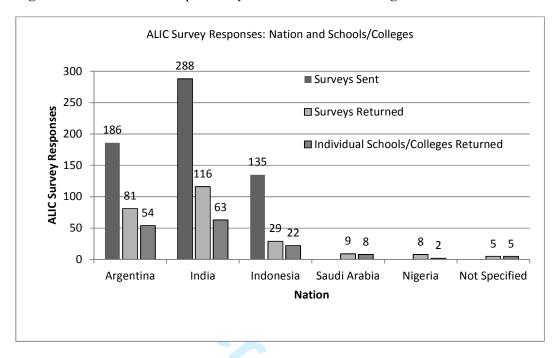


Figure 3: Eigen values and scree plot for the ALIC survey data (for components with eigenvalue > 1)

# Total Variance Explained

1		nuai Eigen	values	Extract	tion Sums Loading	of Squared gs	Rotation Sums of Squared Loadings			
1	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
	5.069	21.123	21.123	5.069	21.123	21.123	3.674	15.307	15.307	
2	2.250	9.374	30.497	2.250	9.374	30.497	1.881	7.840	23.147	
3	1.351	5.630	36.128	1.351	5.630	36.128	1.815	7.562	30.709	
4	1.276	5.315	41.443	1.276	5.315	41.443	1.606	6.693	37.403	
5	1.226	5.107	46.550	1.226	5.107	46.550	1.596	6.651	44.054	
6	1.112	4.635	51.184	1.112	4.635	51.184	1.518	6.323	50.377	
7	1.049	4.371	55.556	1.049	4.371	55.556	1.243	5.179	55.556	
						55.556				

Table 1: Comparing ALIC teachers' assessment values and practices

Item		Values (%) important/ crucial	Practices (%) often/mostly	Values- Practices Gap
6	I give students the opportunity to determine their own learning objectives	73	55	+18
26	I help students to plan the next steps in their learning	88	71	+17
17	I help students to think about how they learn best	96	87	+9
29	I give students the opportunity to assess each other's work	73	65	+8
13	I give guidance to help my students assess their own work	94	86	+8
24	I give guidance to help students assess their own learning	94	86	+8
19	I give guidance to help students to assess one another's work	70	64	+6
22	Assessment of students' work is mainly in the form of comments	75	70	+5
14	I tell students about their strengths and help them to develop these strengths	98	93	+5
23	The subject curriculum determines students' learning objectives	81	88	-7
12	Assessment of students' work is mainly given as marks and grades	64	77	-13

Note: only differences of +/-5 points or greater are shown; data shown in highlight represents a negative values-practice gap

Table 2: Comparing teachers' assessment values and practices in England (from James and Pedder, 2006, p120, Table 2)

Item		Values % important/crucial	Practices % often/mostly	Values- practices gap %
A30	Teachers regularly discuss with students ways of improving learning how to learn.	93	54	+39
A26	Students are helped to plan the next steps in their learning.	83	46	+37
A6	Students are given opportunities to decide their own learning objectives.	65	31	+34
A17	Students are helped to think about how they learn best.	95	63	+32
A29	Students are given opportunities to assess one another's work.	72	47	+25
A24	I provide guidance to help students assess their own learning.	93	69	+24
A19	I provide guidance to help students assess one another's work.	73	50	+23
A13	I provide guidance to help students assess their own work.	95	73	+22
A9	My assessment practices help students to learn independently.	92	73	+19
A23	Students' learning objectives are determined mainly by the prescribed curriculum.	63	92	-29

Table 3: Kaiser-Meyer-Olkin Measure of Sampling Adequacy and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of	.792	
Bartlett's Test of Sphericity	Approx. Chi-Square	1172.625
	df	276
	Sig.	.000

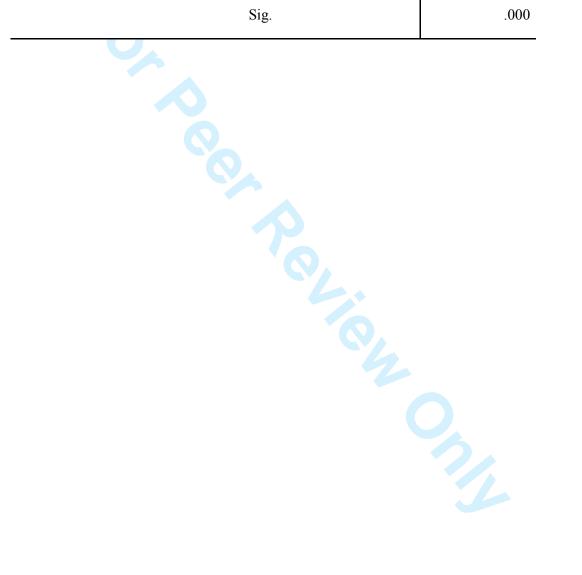


Table 4: Teacher assessment practice dimensions: survey items and factor loadings (simple structure loading)

Item		ALIC Component (Dimension)		nent Component		nt n)
		1	2	1	2	3
15	I help students find ways of solving problems that they have in their learning.	.703		.600		
30	I often talk to students about how they can improve their learning.	.680				
13	I give guidance to help my students assess their own work.	.647			.571	
14	I tell students about their strengths and help them to develop these strengths.	.628		.504		
17	I help students to think about how they learn best.	.616				
16	I encourage students to see their mistakes as valuable learning opportunities.	.598		.537		
21	I help students to understand the learning purposes of each lesson or series of lessons.	.509		.531		
10	I tell students how well they have done compared with their own earlier performance.	.505		.504		
6	I give students the opportunity to determine their own learning objectives.	.363		_	.467	
9	My classroom assessment practices help students to learn independently.	.340				
19	I give guidance to help students to assess one another's work.		.856		.794	
29	I give students the opportunity to assess each other's work.	A1:-	.827		.756	

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 5: A comparison of teacher assessment practice dimensions in James and Pedder (2006) and ALIC (simple structure loading)

	James and Peddar	ALIC Component		
	Component (Dimension)	(Dimension)		
Simple	1. Making learning explicit	Making learning explicit and     promoting learner autonomy		
structure loading	2. Promoting learning autonomy	2. Student control of assessment processes		
	3. Performance orientation			

