

Teacher Standards and Their Assessment

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Introduction

This paper presents an account of the development of competency standards and profiles for primary teachers in Vietnam. The project has taken more than four years and has used a combination of consultative, actuarial and item response modelling procedures to develop and validate a scale of teacher competence. In the overall project more than 27000 teachers have been assessed, over 1000 assessors trained, a set of teacher professional requirements has become available and a data management system has been trialled for the Vietnamese government. After reviewing the international literature on teacher standards and competencies in which this study of Vietnam teacher standards is grounded, this article reports on the findings from an initial study in which 2281 teachers were assessed in 10 provinces in Vietnam. The major aim of the study was to empirically validate and refine the standards for primary teachers in Vietnam as well as determine the most appropriate way in which evidence could be gathered and scored for future roll-out.

Background

According to Shaw (2002), economic development has created a demand for literate, trained populations and its advance has aroused a consciousness in parents that their children must be literate and skilled if they are to enjoy some of the benefits of the increased wealth being generated. Governments around the world have committed to a broader industrial base and are trying to address the issues arising from the resultant demand for a literate and highly trained population. Inline with the declarations of the UNESCO/UNICEF conference in DAKAR 2000, there has emerged an imperative for education for all (EFA) and the implementation of universal education. The three goals of education established at the conference (i.e., equity, access and quality) have been difficult to implement as coexisting properties in developing systems. Access for all has tended to be linked to differential quality and equal opportunity and resourcing tends to be beyond developing economies.

As countries develop they have been able to give more attention to the precise nature of their schools' curriculum and to the quality of the teaching delivered in the realisation of that curriculum. Pre-service training programs have been progressively extended in duration. Inspection and reporting systems have been established for assessing the capability and performance of practising teachers, in part to identify areas where further, in-service training has been required, but also to identify those teachers most able to take on supervisory or leadership responsibilities.

However, the sheer size of the required teaching "force" and public costs associated with its provision have remained as important factors throughout this development. Increasingly, attention has focussed on how the quality of both pre-service and in-service teacher training and teachers' in-school performance might be improved. From time to time, even in countries with mature economies and fully developed systems of universal schooling, moments of heightened concern have arisen over the overall costs of schooling. The systems have been challenged to do better with the resources they have. Ideas have been explored and strategies sought to provide a more clearly directed application of the resources and energies dedicated to teacher training and improvement. Governments, education administrators, school leaders and teachers looked for ways in which teacher development might be more explicitly

“tracked” so that those responsible for it could plan and map its progress and teachers could more readily demonstrate their attainment of knowledge, skill and other aspects of capability.

Increasingly governments are moving from an input mode of financing education to emphasise throughput or process, output and outcomes approaches. However an outcome focus approach still tends to emphasise student achievement rather than the end result of schooling and lifelong learning. As part of the throughput or process, teacher qualifications and competencies are increasingly being examined and measured. Minimal threshold levels of standards are being established and teachers are increasingly being expected to demonstrate these levels. Professional development of teachers is central to the reforms in the UK, the USA and Australia, for instance; and governments are shifting their funding base from one of inputs required, to one based on the demonstration of improved performance and competencies demonstrated. This in turn shifts to the notion of improved performance of teachers being linked to improved performance of students. The implications are that student learning will become a central theme of funding models and this is itself linked to improved teacher and teaching competencies. However, outcomes defined as student performances have been clearly shown to be flawed.

Most notably this has been a first in the development of teacher standards. While the format of the standards is similar to those used in the United Kingdom, their content is quite different. Moreover, while the record system is similar to those reported in the Denver Public Schools (2005) system, this study has illustrated how it is feasible to develop the standards empirically.

The knowledge base and competency based schemes for teaching

Attempts to define, organise and adequately describe the knowledge base of teaching have been numerous. Shulman (1987) described a framework that has become something of a benchmark in the on-going quest for an appropriate set of categories. It can be summarised as follows -

- Content knowledge;
- General pedagogical knowledge including principles and strategies for classroom management and organisation;
- Curriculum knowledge including materials and programs used as the “tools of trade”;
- Pedagogical content knowledge - an amalgamation of content and pedagogy that is a teacher’ special form of professional understanding;
- Knowledge of the learners and their characteristics;
- Knowledge of educational contexts, including the characteristics of classrooms, schools, communities and cultures; and
- Knowledge of educational ends, purposes and values, and their philosophical and historical grounds.

Delineation of categories within the knowledge base is seen as a starting point for building a broad and comprehensive competency-based scheme. It not only disaggregates the body of knowledge which teachers possess and build up in the progression from trainee to experienced practitioner, but it identifies the information

and understandings that teachers draw upon when they engage in the many strategic thinking processes and actions which their practice requires.

In more recent applications of competency based ideas to teaching, the construction of schemes for planning and assessing teacher development begin with comprehensive developmental maps of the knowledge, understandings and appreciations considered by a range of stakeholders to be necessary for successful teaching performance (Griffin, Poynter, Nguyen, Ry and Nguyen, 2001). They identify the required capacities for action and skills that flow from the intellectual interpretation or "reading" of teaching tasks and which transform aspects of knowledge into teaching action. In addition, schemes may identify values and commitments that a teacher must have or take up, and they may also include developing capabilities that a teacher is expected to build with experience.

Broad areas of qualities such as these (knowledge/understandings/appreciations; capacities and skills; values and commitments; developing capabilities) provide a more elaborate framework of strands or dimensions for a scheme. Within a strand (for example: pedagogical knowledge and skills) a number of descriptors or statements is used to detail the qualities or competencies that make up the strand (for example: capacity to develop positive attitudes towards learning; skill in providing opportunities for cooperative learning etc).

International competency based schemes of teaching standards

Teaching standards are necessarily culturally based. This can be seen by investigating developments in the United States, the United Kingdom and in Australia where the purpose and accountability links of teacher standards differ (refer to Figure 1).

	USA		Australia	United Kingdom	
Key Characteristic	Denver Public Schools (2005)	Danielson's (1996) Framework for Teaching	Australian Teaching Council (1996)	Teacher Training Agency (1996)	Scottish Office Education Dept (1993)
Instruction	Instruction	Instructional planning			
Assessment	Assessment		Monitoring and assessing student progress and learning outcomes	Monitoring, assessment, recording, reporting and accountability	
Planning	Curriculum and Planning		Planning and managing the teaching and learning processes		
Environment	Learning Environment				School related competencies
Professionalism	Professional responsibilities	Professional responsibilities (ideology and philosophy)	Using and developing professional knowledge and values		Attitudes and commitments
Pedagogy		Instructional interactions (pedagogy)			
Classroom Management		Classroom management		Planning, teaching and classroom management	Classroom (communication, methodology, classroom management and assessment)
Content knowledge				Subject knowledge and understanding	Subject and the content of teaching
Reflection			Reflecting, evaluating and planning for continuous improvement.		

Figure 1. A comparison of major standards implemented in the USA, UK and Australia according to key characteristics.

It can be seen in Figure 1 that whilst there are a number of common characteristics across a number of international standards, such as assessment and professionalism related competencies, there does not appear to be a single set of universal standards that are common across these three locations. It is no surprise therefore when developing standards for teachers in Vietnam that the culture and government goals and directions influenced the development of standards and requirements of teachers.

In 1994 the OECD published its survey of teacher quality in its member states. It concentrated on the characteristics of teachers of high quality in relation to:

- Knowledge of substantive curriculum areas and content;
- Pedagogical skill including the acquisition of knowledge and ability to use a repertoire of teaching strategies;
- Reflection and the ability to be self-critical;

- Empathy and commitment to the acknowledgment of the dignity of others;
- Managerial competence in a range of responsibilities within and outside the classroom;

(Organisation for Economic Country Development, 1994)

This work was notable because of the characteristics it identified. The succinct statements illustrated the advantage of building up concepts from studies of highly successful practice. Observing that teacher commitment was the quality that made all other qualities possible, the report noted that high quality teachers:

- demonstrate commitment;
- have subject specific knowledge and know their craft;
- love children;
- set an example of moral conduct;
- manage groups effectively;
- incorporate new technology;
- master multiple models of teaching and learning;
- adjust and improvise their practice;
- know their students as individuals;
- exchange ideas with other teachers;
- reflect on their practice;
- collaborate with other teachers;
- advance the profession of teaching; and
- contribute to society at large.

More than any other analysis this set of expectations has influenced the work in Vietnam through the World Bank education sector report.

Moreover, the establishment of standards and their implementation must be based on a number of principles articulated by Brock (2000).

- The identification of any professional standards must involve full discussion with and ultimately ownership of such standards by the teaching profession;
- Accomplished teachers make a difference [in pupil performance];
- Any attempt to establish professional teacher standards must be firmly grounded in accurate and comprehensive understanding of both the timeless and evolving nature of the work of teachers, principals and other school leaders;
- Any construction of professional standards should facilitate the concept of career-long continuum from probationary teacher to retirement – with possibility of moving within as well as outside of and returning to the professional and be applicable to all ranks across the spectrum from beginning or newly appointed to experienced teachers principals and school leaders;
- the articulation and commitment to professional standards must be flexible enough to enable, indeed celebrate, the quality of individuality which is a hallmark of being a professional.

As such, a standards framework needs to acknowledge that an accomplished teacher likes children, likes working with them and have high expectations. Teachers need to

have appropriate intellectual mastery of the subjects and be able to keep abreast of evolving knowledge and teaching methods. They need to be reflective learners themselves and continually attempt to increase their knowledge and practice expertise. The standards must also acknowledge that knowledge, understanding and practices are inter dependent and that individual competencies interact.

Glaser (1987) and Berliner (2004) provided insights into what can be considered as expert teachers. Expert teachers excel mainly in their own domain and in particular contexts. They develop automaticity for repetitive operations that are needed to accomplish their goals. Expert teachers are more opportunistic and flexible in their teaching than are novices. They are more sensitive to the task demands and social situations surrounding them when solving problems. Expert teachers can represent problems in qualitatively different ways than do novices, have faster and more accurate pattern recognition capabilities, perceive more meaningful patterns in the domain in which they are experienced and begin to solve problems slower, but bring a richer and more personal resources of information to bear on the problems they are trying to solve. They make better use of knowledge, have extensive pedagogical knowledge, including deep representations of subject matter knowledge, better problem solving strategies, better adaptation and modification of goals for diverse learner and have better skills for improvisation. They are better at decision making, deal with more challenging objectives, establish a better classroom climate, have better perception of classroom events and a better ability to read the cues from students. Expert teachers have a greater sensitivity to context. They are better at monitoring and providing feedback to students. They more frequently test hypotheses about teaching and learning, give greater respect to students and display more passion for teaching. Their students have higher self efficacy and motivation to learn, pursue deep learning activities and have higher levels of achievement. Expert teachers have a better understanding of how to translate expertise in discipline to a form that is understood by pupils and have greater knowledge of discipline and of pedagogy interact.

Teacher qualities and competencies change and grow through experience and teachers adapt to the circumstances in which they find themselves at varying stages of their career. School authorities seek to recognise this or allocate additional responsibilities to selected experienced teachers and schemes are often structured according to levels or stages. The capacity to adapt and demonstrate increasingly sophisticated competencies is expected through successive levels.

Developing Primary School Teacher Standards in Vietnam

Indicators that describe ways in which teachers can demonstrate evidence of those qualities in their work are often needed. Indicators assist teachers to monitor their own development and provide an idea of what is expected at particular levels. They also assist those who are responsible for supporting or assessing teachers in their development. Monitoring or assessment of a teacher's development also needs to take account of the context within which the teacher works and the quality with which the teacher demonstrates or adapts performance to the demands of the context. Ideally an assessment would occur across the range of competencies and would be qualified according to how well the teacher performed specific duties and adapted to the

context. Stages of development of a teacher's competence could then be identified and a profile drawn up to assist the teacher and those responsible for her/his development to plan for improvement. This is not the same as adjusting an assessment for the effect of context.

In developing the primary teacher standards for Vietnam, these background studies were taken into account in the development of the prototype standards developed in 2000. It was decided that it should be a standards or competency based approach in which the focus was on what teachers were required to know or do in the school rather than on time served. This represented a radical shift in thinking and needed a long gestation period for the government to publicise and gain acceptance of the teaching profession and the community. A national program through the media was launched to gain this acceptance. A period of two years elapsed after the initial feasibility study (Griffin, et.al., 2001) before the competency approach was further explored. After reviewing the international scene in standards and teacher evaluation, a committee established by the Ministry of Education and Training (MoET) set the parameters for the development of standards and for profiling teacher development. For example, the number of levels was set by the government working party after a series of consultations and functional analyses of teachers' duties according to the Government regulations. The number of levels was set to accommodate the government regulation defining the ranks of teachers as 'Teacher', 'Senior Teacher' and 'Leading Teacher'. The study reported here sought to develop a set of professional standards for defining the skills and knowledge required of teaching at each of these levels in Vietnam. There were three main purposes of the procedure developed for this study. They were:

1. To empirically validate and refine the standards;
2. To identify efficient and standardised scoring procedures for making professional judgements of the competence level of the teacher; and
3. To determine the most appropriate way in which to gather evidence of teacher competence in school settings.

Background Development Work on Defining the Standards

The construction of the standards was based on a combination of both theoretical and psychometric approaches to scale development. A set of prototype standards were initially developed by the MoET, in which three 'strands' or areas of competence were drafted, with each strand having three levels. The prototype standards contained no procedural advice; they were simply broad statements and description of levels of development among teachers. A series of forums with key stakeholder groups (including academics, government officials, teacher education providers) were used to review the standards and to make recommendations about procedures to ensure that the assessment process matched the existing procedure as closely as possible but allowed for change in expectations to be introduced.

At the end of the drafting process, three strands were agreed upon (*Ideology and Philosophy, Pedagogy and Discipline Knowledge*). Specific requirements (competencies) were agreed upon for each strand. These were defined as the professional expectations of teachers. There were four requirements in the *ideology* strand and five requirements for each of the *pedagogy* and *knowledge* strands. Each requirement was defined by a series of indicative behaviors, knowledge or skills that the teacher was expected to be able to exhibit. These were called performance

indicators (PI). Each indicative behaviour (PI) was then further refined according to the quality of the behaviour, knowledge or skill exhibited. These were called quality criteria (QC) and they essentially answered the question of ‘how well’ was the indicative behaviour demonstrated such that it was possible to differentiate between teachers based on evidence produced. As such, the structure of the standards addressed four issues.

- What is expected of teachers? (requirement)
- What evidence would a teacher have to demonstrate to indicate that this was present? (performance indicator)
- How well did the teacher demonstrate this? (quality criterion)
- How do the quality criteria differentiate between teachers?

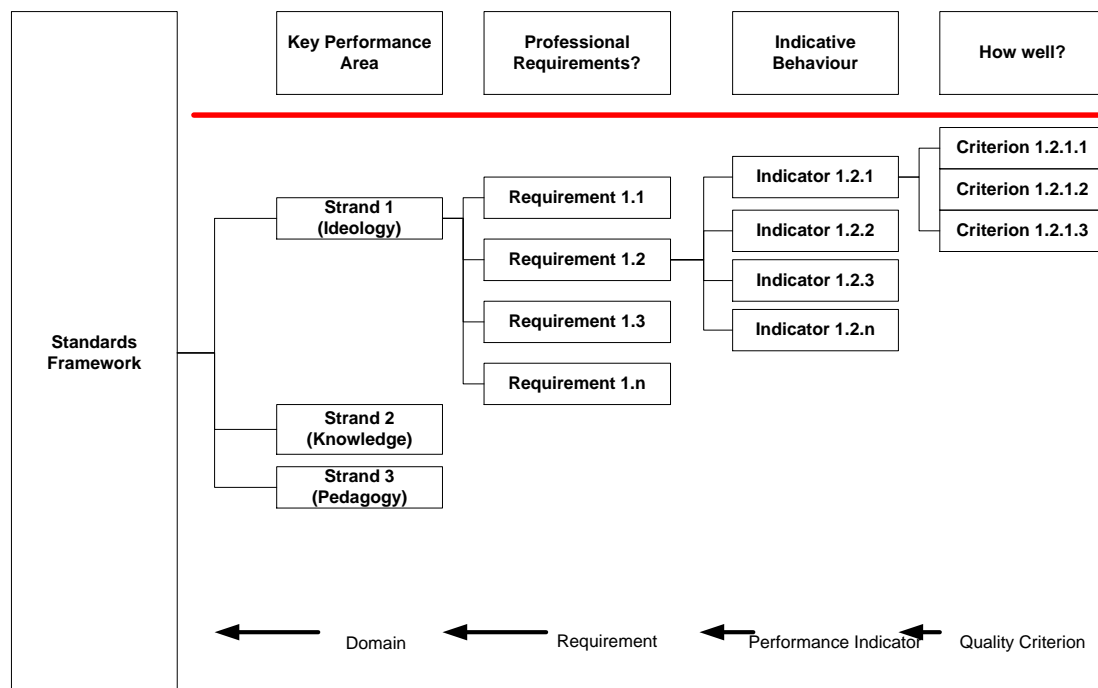


Figure 2. The layered structure of the standards illustrating the relationship between strands, requirements, indicators and criteria

The Methodology

The first three questions listed above addressed the overall definitions of teacher requirements. The fourth question was treated as an empirical question, and was subject to a survey of teachers and an investigation of the efficacy of the assessment procedures developed in parallel to the standards. The content and substance of the requirements and the assessment procedures were subjected to a series of reviews and examinations including a series of expert review panels and a pilot study to examine the proposed assessment procedures and the potential impact on the teachers. The feedback from the panel and pilot studies was used for a final revision before trials begin.

Teacher Training Institute (TTI) staff, district officers and leading teachers filled the role of assessors. They were selected by the Ministry of Education and Training and hence were assumed to have high levels of teacher competence as well as honourable status in the community. Eleven assessors were selected from each of the ten (of a total of 61) provinces that were selected by the Government to participate in the study reported here. They were also trained to become ‘assessor trainers’ for later scaling up

of the procedure. This would enable continuous training of assessors to occur for future roll-out in which over 300,000 teachers are expected eventually to be assessed.

Assessors were trained in the procedures and interpretation of evidence obtained using portfolio, interview, third party reports; and direct observation. Each assessor conducted approximately 22 assessments yielding a total of 2,181 teachers assessed.

Data were forwarded to the central project office. A data checking exercise was performed to ensure that there were no incorrect or inappropriate codes in the data and to check the data for accuracy and reasonableness. The data was then analysed using item response modelling procedures involving Conquest (Wu, Adams and Wilson, 1998).

Recording Instruments

The assessors were required to complete a questionnaire on both the teacher's performance level as well as the sources of evidence (i.e, portfolio, interview, classroom observation and third party). The assessor recorded the numerical code for the quality criterion that best described the teacher's performance. The requirements, performance indicators and quality criteria were presented in a rating scale format. A sample item is shown in Figure 3.

Requirement 3.1 Knows how to design lessons plans which reflects by identifying the right objectives, contents of the lessons, intended teaching methods and aids, and appropriate allocation of time according to lessons procedures

<i>Criterion 3.1.2: Lesson plans must present sufficiently objectives of the lessons.</i>	3.1.2.1 Lesson plans must be developed in accordance with objectives of the lessons	1
	3.1.2.2 Lesson plans must present sufficiently objectives of the lesson on the knowledge, skill and attitude	2
	3.1.2.3 Lesson plans must present sufficiently objectives of the lesson in the detailed manner for observation and evaluation	3
	Not enough Information to make a decision	0

Figure 3. Candidate Questionnaire: a Behavioural Rating Scale.

As shown in Figure 3, an hierarchical rating scale was used to record the teacher's performance. The number of levels varied, depending on the nature of the indicator. A zero was used if the assessor could not identify any evidence of the criterion.

The Sample

The sample of teachers was selected from ten provinces in Vietnam. The distribution of these teachers across provinces is shown in Table 1.

Table 1: The number of teachers assessed in each of the ten provinces.

Province	Number of teachers assessed
Hai Phong	221
Ninh Binh	220
Vinh Phuc	220
Son La	219
Quang Binh	210
Phu Yen	220
Kon Tum	220
Ho Chi Minh	214
Binh Phouc	216
Ben Tre	221
Total	2181

Results

Calibration of the Requirements

The criteria data codes associated with each requirement were treated as separate scales and each of the 14 requirements was separately calibrated. These analyses were supplemented by an interpretation following a procedure outlined previously (Griffin, 2004) where groups of criteria for which the levels of difficulty for teachers to demonstrate were similar were interpreted. The process is similar to that used in interpreting a factor analysis but this procedure yielded a series of ordered developmental levels of teacher competence for each requirement.

An example of the process used to calibrate the requirements is shown next for Strand 3: Pedagogy Skills. The requirement and its indicators are shown in Figure 4.

Performance Indicator (PI)	Quality Criteria (QC)
Requirement 3.1 Knows how to design lessons plans which reflects by identifying the right objectives, contents of the lessons, intended teaching methods and aids, and appropriate allocation of time according to lessons procedures	
1: Designs lesson plans in accordance with regulations on the structure.	3.1.1.1 Designs the lesson plans in accordance with components of the structure 3.1.1.2 Designs the lesson plans with all components of the structure
2: Lesson plans must present sufficiently objectives of the lessons.	3.1.2.1 Lesson plans must be developed in accordance with objectives of the lessons 3.1.2.2 Lesson plans must present sufficiently objectives of the lesson on the knowledge, skill and attitude 3.1.2.3 Lesson plans must present sufficiently objectives of the lesson in the detailed manner for observation and evaluation
3: Lesson plans are consistent to major content of the lesson	3.1.3.1 Presents correctly the major content of the lesson and knowledge 3.1.3.2 Lesson plans must present sufficiently and correctly the content of the lesson 3.1.3.3 Lesson plans must present sufficiently and correctly the core content of the lesson
4: Lesson plans present facilitation of teaching methods to facilitate pupils' learning initiative.	3.1.4.1 Lesson plans must use the learning methods within teaching guides 3.1.4.2 Lesson plans must present the modification and selection of teaching methods within teaching guides to cater for the background characteristics of the pupils 3.1.4.3 Lesson plans must present innovation of teaching methods to facilitate pupils' learning initiative 3.1.4.4 Lesson plans must present innovation of teaching methods to guide and facilitate pupils' self-learning methods
5: Learning materials, aids and resources are selected and used effectively to improve teaching quality	3.1.5.1 Uses learning materials and aids that are specified in the teaching plans and guides developed by the Ministry; 3.1.5.2 Selects, and seeks additional support materials to assist with gaining a deeper and broad knowledge and understanding of the curriculum area 3.1.5.3 Identifies, evaluates and selects learning materials, aids and resources in line with the documented learning goals, pupils' characteristics, the learning environment and budgetary, time and other constraints. Considers individual learning differences in the development, selection and adaptation of learning materials and resources and can justify selection for all pupils
6: Assessment methods are included in lesson plans	3.1.6.1 Assessment methods are in accordance with the teacher guides 3.1.6.2 Lesson plans demonstrates flexibility in applying assessment methods of pupils' results 3.1.6.3 Lesson plans demonstrate creativity and innovative approach in assessment of pupils' results
7: Lesson plans must present onable distribution of timetable teaching activities in the class	3.1.7.1 Lesson plans demonstrate time allocation of teaching-learning activities 3.1.7.2 Lesson plans demonstrate appropriate time allocation of teaching 3.1.7.3 Lesson plans demonstrate flexible time allocation of teaching

Figure 4. The components of Requirement 'developing lessons' - Performance Indicators and Quality Criteria.

As can be seen in Figure 4, the first requirement in Strand 3 (referred to as Requirement 3.1) had seven performance indicators (PI). For each of these seven PIs

there were a series of quality criteria (QCs). The number of quality criteria varied across PIs. For instance, PI 3.1.1 has only two QC levels, whilst QC 3.1.5 had three.

Assessors scored the teachers against each PI by selecting the QC level that most closely matched the teacher’s performance. The seven PI and their associated QC codes were calibrated using the Rasch partial credit model. This juxtaposes the demands of the criteria with the estimates of the teachers’ ability. They are presented in a figure called a variable map. Figure 5 shows a variable map resulting from the analysis of Requirement 3. The distribution of ‘X’s on the left of the figure represents the teachers and the height of the ‘X’ represents the teacher’s ability estimate on Requirement 3. The code for each criterion is represented at the bottom of the figure using the three-digit code (e.g., 3.1.1 refers to Strand 3, Requirement 1, PI₁, and 3.1.2 refers to Strand 3, Requirement 1, PI₂, etc). In this example, Performance Indicator 3.1.5 required the most teacher ability, while a score of 1 on Performance Indicator 3.1.2 required the least teacher competence.

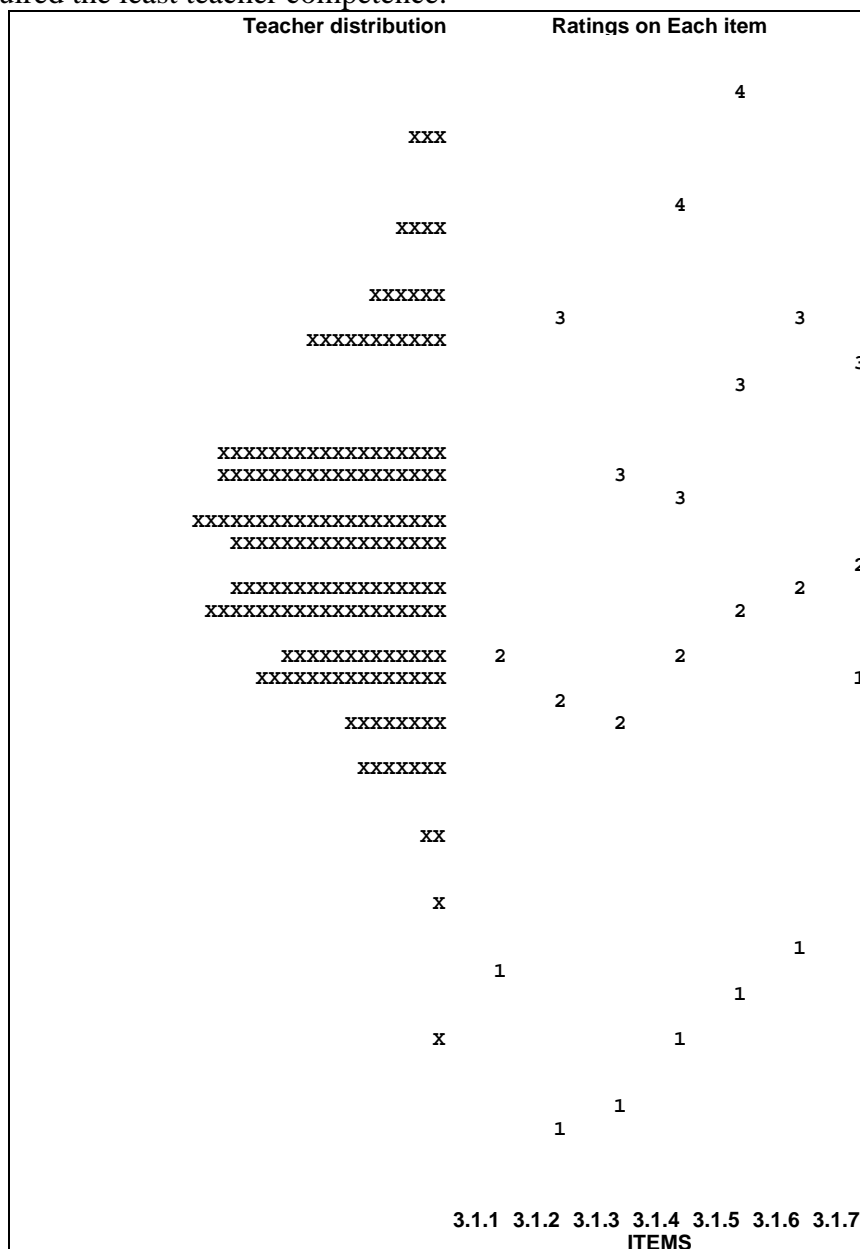


Figure 5. Variable map of Requirement 3.1

The height of the QC code represents the difficulty experienced in demonstrating that specific quality of performance. The QCs can be grouped into five clusters as indicated by the horizontal lines. Once the levels were identified in the variable map, a content analysis of the QCs within each cluster provided an interpretation of the developmental levels within the requirement.

In Figure 6, the first column refers to the item code. The column titled *Quality Criterion* (QC) presents the statement that matches the item code and is directly taken from the assessment questionnaire. The column titled *Requirement Level Descriptor* represents the interpretation of the common set of skills and knowledge that underpinned that set or cluster of indicators. In this example, Requirement 3.1 could be explained adequately using five levels. A *Nutshell*, (or gist) statement is provided that summarises each of the five levels. This was done for convenience of recording later assessments, and these statements are recommended as the basic materials for the future assessment recording sheets when the data are analysed at the strand level.

Place Figure 6 about here

While the sample was not a random sample and it is not intended to represent the distribution of competency among Vietnam teachers, it is instructive to examine the distribution of teachers' competency levels. Figure 7 indicates that most teachers in the trial sample were assessed at Level 3 on this requirement (54%). Very few teachers were assessed at the two extreme ends of the scale (less than 6% for both Levels 1 and 5).

Item	Q.C	Requirement Level Description	Nutshell
3.1.5.4	Consider individual learning differences in the development, selection and adaptation of learning materials and resources and justify selection for all pupils. Select and implement appropriate learning strategies to facilitate pupils' self-learning.	Consider individual learning differences in the development, selection and adaptation of learning materials and resources and justify selection for all pupils. Select and implement appropriate learning strategies to facilitate pupils' self-learning.	5. Tailored and individualised approach to teaching and learning
3.1.4.4	Lesson plans demonstrate innovative teaching methods to guide and facilitate pupils' self-learning methods	Develop lesson plans that demonstrate creativity, innovation and flexibility in assessment and teaching practices. Select and use learning materials, aids and resources consistent with documented learning objectives, and that take into account the characteristics of pupils, learning environment and budgetary/time factors.	4. Creative approach to teaching and materials development
3.1.6.3	Lesson plans demonstrate creativity and innovative approach in assessment of pupils' results		
3.1.7.3	Lesson plans demonstrate flexible time allocation of teaching-learning activities that reflect situational constraints		
3.1.2.3	Lesson plans sufficiently reflect objectives of the lesson in details for observation and evaluation		
3.1.5.3	Identify, evaluate and select learning materials, aids and resources in line with the documented learning goals, pupils' characteristics, the learning environment and budgetary, time and other constraints.		
3.1.3.3	Lesson plans sufficiently and correctly present the focus of the lesson	Develop detailed lesson plans that outline lesson focus, learning methods, assessment strategies and time allocation. Select additional support materials to gain a deep and broad knowledge and that cater for local context and children	3. Develop lesson plans
3.1.4.3	Lesson plans present innovative teaching methods to facilitate pupils' self-learning methods		
3.1.7.2	Lesson plans demonstrate appropriate time allocation of teaching-learning activities		
3.1.6.2	Lesson plans demonstrate flexibility in applying assessment methods		
3.1.5.2	Select, and seek additional support materials to assist with gaining a deeper and broad knowledge and understanding of the curriculum area		
3.1.1.2	Design the lesson plans with all components of the structure.	Design lesson plans that outline all essential components such as learning objectives, content, lesson plans and objectives	2. Attention to detail of lesson plans and objectives
3.1.4.2	Lesson plans reflect modification and selection of teaching methods within teaching guides to cater for the background characteristics of the pupils		
3.1.7.1	Lesson plans demonstrate time allocation of teaching-learning activities		
3.1.2.2	Lesson plans sufficiently reflect objectives of the lesson in terms of knowledge, skill and attitude		
3.1.3.2	Lesson plans demonstrate sufficiently and correctly the content of the lesson		
3.1.6.1	Assess methods are in accordance with the teacher guides	Attempt to develop, customise or use lesson plans in accordance with teaching guides.	1. Use standard approach and teaching guides
3.1.1.1	Design the lesson plans in accordance with components of the structure		
3.1.5.1	Use learning materials and aids that are specified in the teaching plans and guides developed by the Ministry.		
3.1.4.1	Lesson plans are consistent with teaching guides		
3.1.3.1	Correctly present the major content of the lesson		
3.1.2.1	Lesson plans developed in accordance with objectives of the lessons		

Figure 6: Development of requirement level descriptors and nutshell statements.

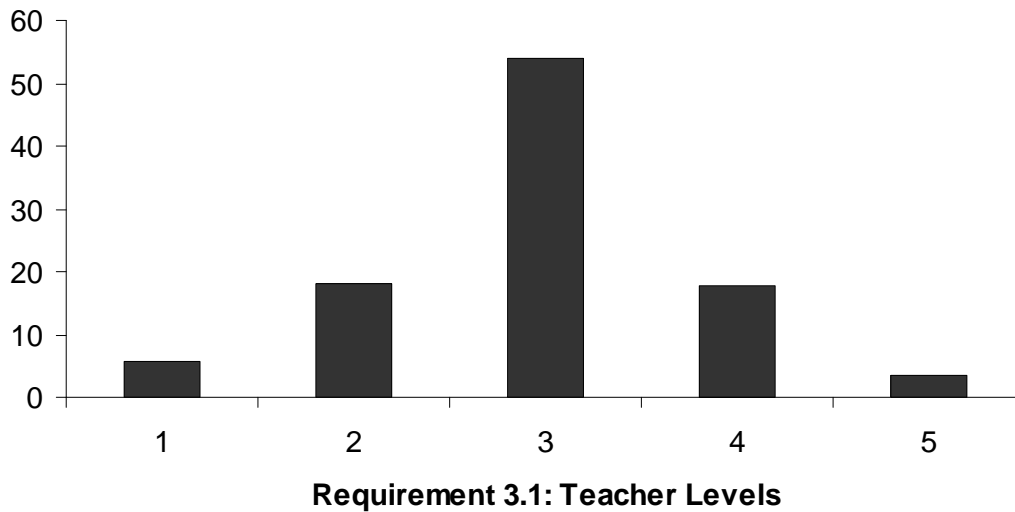


Figure 7. Proportion of teachers assessed at each level of requirement 3.1.

To simplify the procedures for recording and interpreting the assessments, a set of scoring rules also needed to be developed for each requirement. While holistic assessment was recommended, the MoET representatives were of the opinion that the appearance of scores and rules for conversion would be more acceptable to teachers and to assessors than an on-balance holistic judgement based assessment. Each requirement was calibrated in a similar fashion and a series of ‘nutshell’ summary statements were derived for each requirement.

Strand Calibration

It was also possible to empirically describe the strands using the same analysis. In this step however, the rating scale consisted of the nutshell statements for each requirement. This meant that a simple assessment instrument could be developed representing the standards. Each requirement was treated as a separate *item*, and three analyses were conducted. The layout of this is shown in Figure 8. Under these circumstances, a 14 item record sheet was needed to record the teacher performance.

	Level 5	Level 4	Level 3	Level 2	Level 1
K1	5. Adaptable to subject and grade	4. Has special skills across years	3. Limits subject across years	2. Adapts subject but limits year level	1. Limited to specific year and subject
	⑤	④	③	②	①
K2		4. Analytical and creative approaches to teaching.	3. Evaluative and critical approach to teaching	2. Understands reasons for approaches to teaching	1. Basic knowledge of teaching
		④	③	②	①
K3			3. Proponent of embedding political message	2. Party policies are part of teaching	1. Compliant to party policy follower of policy
			③	②	①
K4		4. Incorporates regulatory matters in teaching	3. Explains the value of state regulatory matters in school governance	2. Understands regulatory matters	1. Aware of state regulatory matters
		④	③	②	①
K5		4. Critical use of community influence and materials	3. Incorporates local materials and influences in teaching	2. Discerning with regard to community influences	1. Aware of some community resources and influences
		④	③	②	①

Figure 8: Use of requirement calibration to develop assessment instrument.

Analysis of the relative requirement levels and clusters in Figure 9 suggested that it might be appropriate to define four levels. A content analysis of the clusters of nutshell statements identified overall level descriptors for the strand. Moreover, to be consistent with the Vietnam Teacher Terms of Service, three levels were defined for each strand.

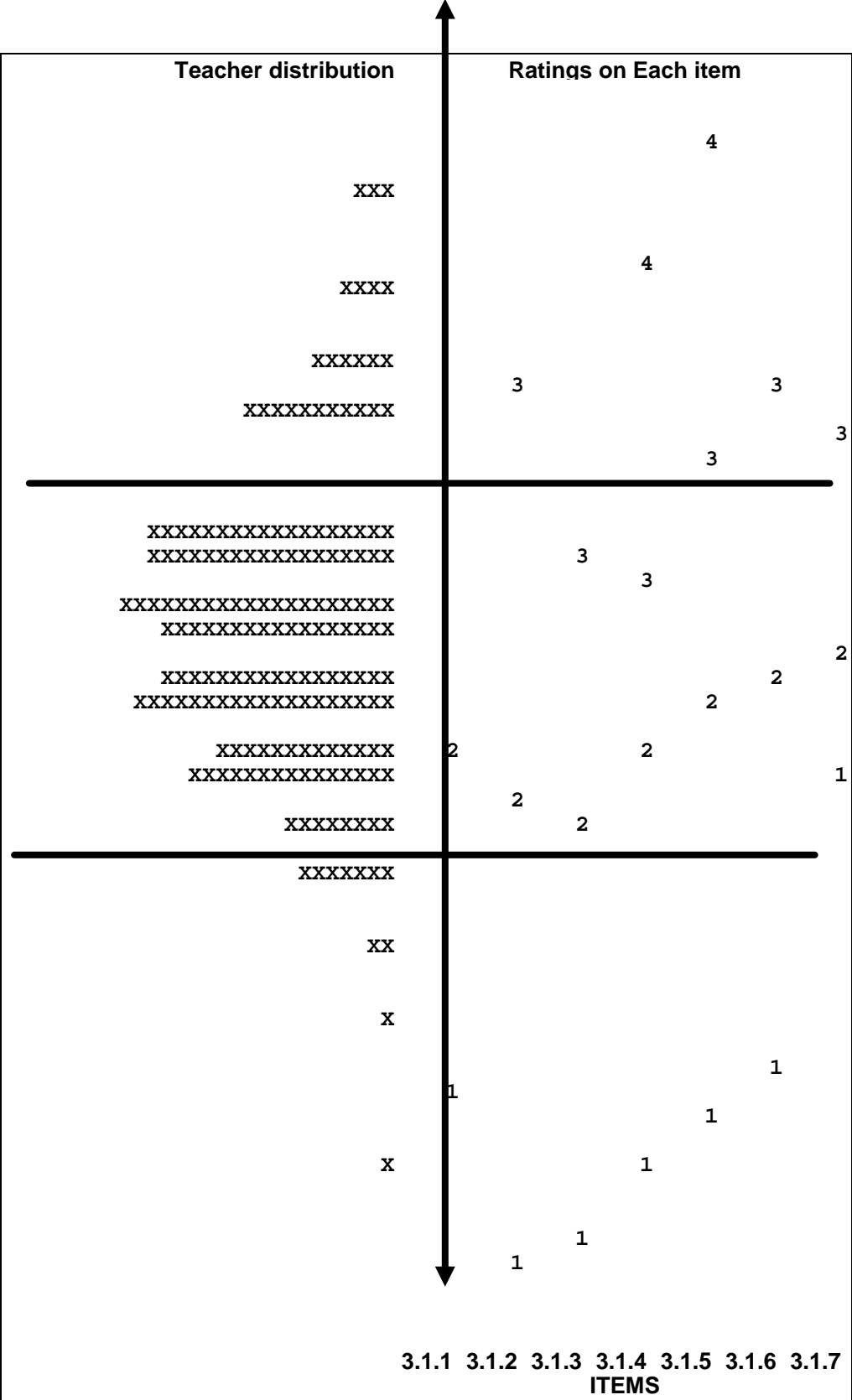


Figure 9. Knowledge strand calibration.

Discussion

Reform in primary education in Vietnam has been an ambitious program. Reforms of curriculum, teaching and learning, resource and infrastructure were targeted in the World Bank strategy developed in conjunction with the Vietnamese government. Developing teacher standards had been identified as an important central aspect of their reform of the education system. This article has discussed the development of only one component of the reform of teaching and teaching standards. The overall reform was intended to include changes to teacher appraisal, their terms of service, opportunities for pre- and in-service teacher training and to a personnel management system. The assessment procedures are central to the overall reform. Links between the assessment outcomes and professional development opportunities were established. A three-tier progression for advancement in teaching was established as a framework for teacher promotion. Teachers would and could advance to the top of the first tier (Beginning teacher) based on time served, but if a teacher sought promotion to 'advanced teacher' an assessment of competence would be required indicating that the teacher has at least met the standards for that second level. The teacher could then progress to the top of this second tier and when ready for promotion to the level of 'expert teacher' another assessment would be required.

After six years of research and development the new primary teacher professional standards for Vietnamese primary teachers were launched at an international conference hosted by the Ministry of Education and Training in Hanoi in October 2006. Research teams from universities in Ho Chi Minh City, Da Nang and Hanoi as well as a Project Coordination unit of the Ministry of Education and Training worked with the University of Melbourne's Assessment Research Centre in the World Bank development project to develop the standards. Each of the regional teams was led or supported by a Vietnamese who had studied educational measurement theory and practice.

In this component of the reform, item response modelling was used to develop a simple-to-use questionnaire for recording teacher competence against a range of standard requirements. The results showed that assessors could be trained, that the requirements and the criteria discriminated between teachers on the basis of their professional competence. Assessors found the system usable and the training program was readily adapted to local Vietnamese conditions and educational culture. It was also clear that teaching and classroom practices and cultures were not amenable to western culturally-based competencies. What was regarded as superior teaching and classroom management was not the equivalent of western approaches, but it was not the purpose of the study to impose such systems. So despite the similarity in structure to standards developed elsewhere the content and orientation of the Vietnamese standard are more closely oriented to the culture of the existing system. The structure of the standards and the methodology was transportable from a western system to the Vietnamese, Confucian, context but not the content.

While the nomenclature varied to suit the language and expectations of the Vietnamese government, the structure remained stable. Strands (domains), were broken down into requirements (competencies), which in turn required a checklist of evidence (performance indicators) and these in turn were qualified according to the quality of the performance embodied in the evidence (quality criteria).

The Vietnamese education system had several requirements of its own. It was clear that assessors had to be trained and credentialed to collate evidence from a range of sources before completing the assessment record forms. It was also necessary to train the assessors to prepare the assessment materials and procedure in advance of the visit to the school so that the time spent on any individual teacher assessment in the school was minimised. The expense, in terms of teacher and assessor time, needed to be minimised. A time limit was placed on the assessment and a single form used to record all assessment data. Assessors should calculate a score for each requirement and also record this on a *Requirement Record Form*.

All assessors also had to be competent against the requirements. This meant that they would all be expected to undergo a training program and be assessed against the knowledge and skills involved in conducting assessments and providing advice to teachers about career enhancement and professional development. Both the assessor and teacher signed the completed record and recommendation sheet at the end of the assessment debriefing session. In the event of a dispute over the assessment, an appeals process was established by MoET so that all appeals could be heard at the district office. Procedures for this were developed and documented in the Terms of Service project component. District and provincial officers were also able to review decision patterns of assessors on a regular basis and identify assessors who required further training.

Most notably this has been a first in the development of teacher standards. While the format of the standards is similar to those used in the United Kingdom, their content is quite different. Moreover, while the record system is similar to those reported in the Denver Public Schools (2005) system, this study has illustrated how it is feasible to develop the standards empirically with compatibility to different cultural systems.

Teacher competence is regarded as an important determinant of student achievement. In Vietnam a new primary education curriculum introduced in 2000 required intensive in-service teacher training. There were 385, 000 primary school teachers working in 13,500 primary schools. There were six different types of teacher training. This situation suggested that teacher skills may have been commensurate with the level of training and the government of Vietnam launched a project to establish standards for primary teachers, to assess them against the standards and to develop a set of training programs linked to the level of skill development defined in the teacher standards. The standards were expected to:

- provide a nationally agreed basis for judging teacher competence and ensure consistency in the certification of teachers across Teacher Training Institutions (TTIs); provide a framework for the design of pre-service and in-service training programs;
- lead to valid, reliable, transparent and fair assessments of teacher performance
- identify further professional development needs;
- define the relationship between competencies and teaching classifications; and
- enable studies to be undertaken that can examine the impact of teacher competencies/expertise on student achievement

In the final study more than 25000 Vietnamese primary teachers were assessed by 1000 trained assessors. The process of developing the standards and the methods of analysis has established a benchmark procedure for the development of teaching competency standards.

The professional standards will be signed into legislation by the Vietnamese Government during 2006. The final form of the standards consisted of fourteen mandatory requirements and each requirement was defined in terms of four developmental levels. All students exiting from teacher training Institutions in Vietnam must demonstrate competence at the first of the four levels to be accredited as a teacher. The four levels align with the revised terms of service for primary teachers which formed a component of the overall project. Promotion to leading and expert teacher will depend on the teacher being able to demonstrate competence at the levels three and four across all requirements.

The standards have been linked to training modules all designed to deliver developmental learning towards the required 14 standards for promotion, and a national personnel information management system has been developed to monitor the nation's 385,000 primary teachers and their assessment and training records. In the main study more than 27,000 teachers were assessed in 10 provinces, in more than 1000 schools. More than 1000 personnel from provincial and regional offices were trained to implement a 360 degree teacher appraisal process. The system was also designed to record assessor activity and judgements as a quality assurance process.

Roll out of the standards, their associated assessment strategy and record keeping system to the remaining 54 provinces will begin in the New Year. Teacher promotion and professional development participation will then be based on ability to meet the standards defined in the requirements rather than a time served. In 2006 and 2007 the teacher competency assessment procedure will be used in a Vietnam national survey of student literacy and numeracy for pupils at the end of primary school in order to investigate the relationship between teaching competence and student achievement. The Assessment Research centre provided the educational measurement advice and technical direction in test design for the first national study conducted in 2001.

Other applications of the methodology are also in development. In Australia, the government of the state of Victoria was concerned that there appeared to be no uniform approach to the development of school leadership personnel. The same approach was applied to the development of competency standards for school leadership. In the early stages of this project, just over 1000 school leadership personnel were assessed and the data used to generate the leadership developmental pathway framed within the theory of leadership established by Sergiovani.

In both cases, the end result was a developmental pathway illustrating increasing levels of competence and a process of assessment that demonstrates validity and reliability of Judgement. This paper presented a generic process of developing and validating the primary school teacher standards and the leadership standards on a completely different school system in Australia together with the assessment process. It explores the importance of establishing standards and expectations of teachers and the leadership of schools and offers a procedure that helps to define and use those standards for the betterment of schools and of education in general..

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