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CHAPTER ONE

The Learner's Perspective Study

INTRODUCTION

The Insider's Perspective

It is an essential thesis of the Learner's Perspective Study (LPS) that international comparative research offers unique opportunities to interrogate established practice, existing theories and entrenched assumptions. In this book, we offer you a variety of images of classrooms from twelve of the countries participating in the Learner's Perspective Study. These various portraits of classroom practice are open to at least two readings: firstly, as characterisations of salient features of practice as judged by the members of the local research group carrying out the analysis; secondly, as indicative of the diversity of practice evident in mathematics classrooms internationally. It is the first reading that prompts the title of this book: *Mathematics classrooms in twelve countries: The insider's perspective*. The term "insiders" is used in two senses: The authors of each chapter are insiders in their own cultures and school systems and carry out their analyses from that position; also, the voices that constitute the data of this research are the voices of the insiders in the classrooms studied – the students and their teachers. The resultant accounts of mathematics classrooms in twelve countries should carry a consequent weight of credibility because of their insider status. We leave it to you, the reader, to decide whether or not the accounts resonate with the practices of classrooms with which you are familiar.

The Learner's Perspective Study

The Learner's Perspective Study was designed to examine the practices of eighth grade mathematics classrooms in a more integrated and comprehensive fashion than had been attempted in previous international studies. The project was originally designed to complement research studies reporting national norms of student achievement and teaching practices with an in-depth analysis of mathematics classrooms in Australia, Germany, Japan and the USA. Since its inception, research teams from other countries have continued to join the Learner's Perspective Study. The title of the project (The Learner's Perspective Study) was

intended to complement teacher-focused studies by foregrounding the learner's perspective. As the project grew, its purpose was progressively reinterpreted and expanded. In the same way that students, teachers and researchers are all considered to be insiders for the purposes of this book, so all can be considered learners: partners in an international collaboration to develop new knowledge and to understand and improve the practices and outcomes of our classrooms. We hope the reader will also identify with this Learner's Perspective.

The twelve research teams whose research is reported in this book are situated in universities in Australia, China, the Czech Republic, Germany, Israel, Japan, Korea, the Philippines, Singapore, South Africa, Sweden and the USA. This combination of countries gives good representation to different European and Asian educational traditions, affluent and less affluent school systems, and mono-cultural and multi-cultural societies.

A significant distinguishing characteristic of this study is its documentation of the teaching of *sequences* of lessons, rather than just single lessons. The importance of this cannot be overestimated. Analyses of classroom practice that do not take into account the situation of the lesson within the enfolding topic, ignore one of the major influences on the teacher's purposeful selection of instructional strategies. In addition, unlike previous international studies, this project has the capacity to relate identified teacher practices to antecedent student behaviours and to consequent student outcomes. The documentation of these chains of association, both within a single lesson and across several lessons, and the analysis of their cultural-specificity will contribute significantly to the improvement of both teacher and learner practices in mathematics classrooms in all participant countries. Finally, the use of post-lesson video-stimulated interviews provided an opportunity for the classroom participants' voices to be heard, in particular in relation to the meanings that each classroom activity and situation held for that participant.

Another distinguishing feature of this project is the exploration of learner practices. Previous cross-national studies have identified coherent sets of actions, and associated attitudes, beliefs and knowledge, that appear to constitute culturally-specific teacher practices. It was hypothesised in the formulation of the Learner's Perspective Study that there might be sets of actions and associated attitudes, beliefs, and knowledge of students that might constitute culturally-specific, coherent learner practices. The use of three video-cameras in the classroom, supplemented by post-lesson video-stimulated interviews, provided a data base sufficiently complex to support analysis of both individual learners' constructed meanings and their perspectives on classroom practice, as well as documenting those corporate behaviours common to the class conglomerate. It was also possible to study the consistency or variability of teacher use of particular practices, the students' construal of those teacher actions and the mathematical and social meanings constructed by students. In particular, this project facilitated the comparison of 'quality' mathematics teaching across a wide variety of school systems situated in different countries, by identifying similarities and differences in both teaching practice and in the associated student perceptions and behaviours.

It was of interest in this study whether the learner practices observed in the classrooms from one country showed consistency of form and purpose, sufficiently different from other classrooms, such as to suggest a culturally-specific character. Because of the highly selective nature of the classrooms studied in each country, no claims can be made about national typification of practice, however any regularities of practices sustained across thirty lessons demand some consideration of the possible causes of such consistency. Whether or not such identifiable learner characteristics exist as cultural traits, this study was predicated on a belief that international comparative studies are likely to reveal patterns of practice less evident in studies limited to a single country or community.

The findings of this study include rich descriptions of the practices of participants in eighth grade mathematics classrooms in twelve countries, predominantly from the perspective of the learner, supplemented by the perspectives of the teacher and the researcher. While the basic data collection tool was videotape supplemented by reconstructive interviews (see Clarke, 1998, 2001), the learner's perspective was constructed not only through the reporting of visual detail per se, as might be expected in a video study, but also through what the learner reported as seeing, and from an analysis of those practices in which the learner chose or did not choose to participate, together with the meanings that the student (and the teacher) reported as being associated with those practices.

This project cannot make statements of a general nature about national characteristics. It does, however, aim to situate its findings in relation to documented common teaching practices and levels of school achievement. In studying the diversity of ways in which students perceive and respond to a particular teacher action, it is helpful to know how prevalent that action is within the body of teaching practice commonly evident in the eighth grade mathematics classrooms of that country. This is where the two Third International Mathematics and Science video Studies (TIMSS) (Hiebert et al., 2003; Stigler & Hiebert, 1999) are of particular relevance to this study. The emphasis of this study, however, is not on teaching practice in isolation, but rather the manner in which this anticipates, arises from and impacts upon learner practice. It was an hypothesis to be addressed in this study that teacher and learner practices are mutually accommodating and mutually sustaining and evolve symbiotically to the mutual benefit of classroom participants, who co-construct these practices through their participation in classroom activity.

A Practice-Oriented Approach

A significant component of the Learner's Perspective Study is the utilisation of a practice-oriented analysis of learning. This approach characterises key aspects of the LPS project because it situates mathematical activity in relation to the social settings with which the project is fundamentally concerned, and also because it allows us to interrogate those settings with respect to the practices they afford and constrain. Analyses focusing upon the practices of a system (or setting) offer our best hope of accommodating the complexity of the phenomena we are interested in,

but doing so in a manageable fashion. We distinguish the practice of individuals (a teacher's practice or a single learner's practice) from 'professional practice' in the sense of established 'legal practice' or 'medical practice.' In this regard, we posit the notion of an individual having constructed a body of practice in which s/he engages regularly, but which is subject to refinement, modification, rejection, and replacement over time. Such individual practice will be a subset of the practices of the various communities of which each individual has membership and will conform to the affordances and constraints of the settings and situations in which those individuals find themselves.

There are differences between this view of learning as emergent individual practice and the social theory of learning articulated by Wenger (1998), for example. These differences relate to the degree of agency accorded to the individual (i) to choose the nature of their participation in community practice, and (ii) to contribute to and change that practice. Such differences are largely ones of emphasis, with Wenger foregrounding the community into whose practice the learner is being initiated, while, by taking the "Learner's Perspective," we are more interested in the acts of interpretive affiliation, whereby the learners align themselves with various communities of practice and construct their participation and ultimately *their* practice through a customising process in which their inclinations and capabilities are expressed within the constraints and affordances of the social situation and the overlapping communities that compete for the learner's allegiance and participation. Wenger also stresses the multiplicity and overlapping character of communities of practice and the role of the individual in contributing to the practice of a community. In another respect, we are also in sympathy with Wenger's perspective.

The kind of social theory of learning I propose is not a replacement for other theories of learning that address different aspects of the problem. But it does have its own set of assumptions and its own focus. Within this context, it does constitute a coherent level of analysis; it does yield a conceptual framework from which to derive a consistent set of general principles and recommendations for understanding and enabling learning (Wenger, 1998, p. 4).

This theoretical position, as stated by Wenger, accords a legitimate complementarity to theories of learning. The criteria for legitimacy are coherence, a domain of applicability, an implicit consistency with empirical evidence within that domain, and the potential to inform our understanding of learning and our promotion of learning in that domain. The legitimacy and utility of complementary analyses follow directly from this position.

Complementarity and Voice

Complementarity is fundamental to the approach adopted in the Learner's Perspective Study. This applies to complementarity of participants' accounts, where both the students and the teacher are offered the opportunity to provide

retrospective reconstructive accounts of classroom events, through video-stimulated post-lesson interviews. It also applies to the complementarity of the accounts provided by members of the research team, where different researchers analyse a common body of data using different theoretical frameworks. This approach proved successful in a previous study (Clarke, 2001) and is evident in the chapters of this book and its companion volume (Clarke, Emanuelsson, Jablonka, & Mok, 2006). For example, Chapters 4, 12, and 20 were all written by members of the Japanese research group participating in the LPS project. Although each chapter reports an analysis of the Japanese LPS data, the emphasis and the method of analysis employed in each of these three chapters is quite different: Shimizu contrasts teacher and student perceptions of significant classroom events; Sekiguchi examines mathematical norms in the Japanese mathematics lessons; and Hino looks at teachers' support for students during seatwork.

Within the LPS project and the LPS research community, complementarity is aligned with the recognition that researchers bring to any project a set of values that reflect each researcher's cultural background and theoretical orientation. Essential to this form of complementarity is the acknowledgement that the perspective that a South African researcher brings to the analysis of classroom data is inevitably different from that of a researcher from China, the Czech Republic or the Philippines. Different priorities drive the research agenda of the researchers participating in the Learner's Perspective Study. These differences enriched the project, the community and this book.

Another agenda also contributes here: the agenda of voice. Basic limitations on affluence and available resources restrict some countries from participating in international studies, except as the objects of the research of other, more affluent, research communities. An attempt was made in the LPS project to accord all participating countries the status of research partners, rather than research objects. The diverse authorship of the chapters in this book reflects the extent to which this attempt was successful. The resulting research reports do not represent an international consensus on how classrooms should be viewed. They reflect important differences in what the researchers from each community saw as salient. It was not our intention to privilege one voice over another.

Classroom researchers around the world have constructed theories of pedagogy, instructional practice, classroom interaction and learning. Friends and colleagues, such as Ball (2000), Bauersfeld (1988), Bromme and Steinbring (1994), Cobb, Wood and Yackel (1993), Gu, Huang and Marton (2004), Voigt (1998) and their co-workers have constructed theories with varying claims to generalisability. Such theories are largely "within-culture" theories and any claims to generalisability should be seen as bounded by the cultural situatedness of the classroom contexts from which (and for which) those theories were constructed. We make no such claims of generalisability. Indeed, the legitimacy of any cross-cultural generalisation with regard to a phenomenon so socially-situated as classroom practice must be suspect. In this book, in particular, no attempt at cross-cultural comparison is made *within* any one chapter. The book itself, however, should sustain any comparisons the reader might like to make *between* chapters. Issues

most salient and practices most prominent in Singapore may not resonate at all with the situation in Sweden. On the other hand, there may be unexpected echoes of the reader's classrooms in the descriptions of South African attempts to thematically connect and situate the mathematics curriculum (Chapter 8, Sethole, Goba, Adler and Vithal), or in Sekiguchi's discussion of mathematical norms in the Japanese lessons (Chapter 20). We think that the reader will benefit from the recognition of such similarities and also from the confronting differences that we have all found in the practices of classrooms overseas. Ultimately, however, the significance of any particular researcher's account is a matter for each reader to determine.

RESEARCH QUESTIONS

The Third International Mathematics and Science Study (TIMSS) (Beaton & Robitaille, 1999) established national profiles of student achievement and teacher and student beliefs regarding classroom practice. National norms for teaching practice were reported from the analysis of a statistically representative sample of videotaped eighth-grade mathematics classes in Japan, Germany and the USA (see Stigler & Hiebert, 1999). However, this research into mathematics classrooms collected only single lessons from each teacher and did not address learner practices. The LPS research design aimed to construct rich, detailed portrayals of the practices of individual well-taught mathematics classrooms over sequences of ten lessons.

It is an important feature of this project that it examined sequences of ten lessons, taught by teachers identified as competent by the local education community. Most significantly, this project adopted the position that research into classrooms, and into learning in classrooms, in particular, must address the interactive and mutually dependent character of teaching and learning. Such an approach requires the simultaneous documentation of the practices of both teacher and learners and the identification of the meanings each constructs for (and from) the practices of the other.

A series of research questions structured data collection in this project. Each of the original research questions is stated below, along with a brief summary of how each question was addressed. While each question was explored by research groups in each country through each set of local data separately, the power of the project is greatly enhanced by the access provided to matching data from other countries. A companion volume (Clarke et al., 2006) reports analyses that sought to make specific comparison between the practices of classrooms situated in different countries. This book focuses on analyses of classrooms within a single country. As a consequence, some research questions are addressed in one book and some in the other.

The first six research questions are sequenced according to the extent to which both teacher and learner practices and outcomes are integrated within the question. The issue of the practical implications of this study is addressed in question 7.

1. Within the classrooms studied in each country, is there evidence of a coherent body of student practice(s) (and to what extent might these practices be culturally-specific)?

Regularities within the practices of particular classrooms, particularly across ten lessons and at the level of detail documented in this research, can provide evidence of coherent bodies of practice. The cultural specificity of any such classroom practices requires comparison of substantial bodies of data drawn from different cultures, however diversity of practice within the classrooms of a particular country may suggest aspects of practice that are not culturally specific. It is also possible that teacher and learner practices are so interrelated as to be only meaningful when considered as aspects of classroom practice (see Chapter 3 (Keitel) or Chapter 4 (Hino) for example).

2. What are the antecedent and consequent conditions and actions (particularly learner actions) associated with teacher practices identified in earlier studies as culturally specific and nationally characteristic?

The research design had the capacity to identify particular teacher actions associated with the cultural teaching scripts identified in earlier research and relate these to the student practices that preceded or followed their use, with the potential to identify both influences and outcomes with respect to both sets of practices or, alternatively, to view such interactive connections as evidence of the extent to which teachers and learners were both complicit in the collaborative enactment of classroom practice. Some of these chains of association or interactive connections are reported in the chapters in this book, such as Chapters 11 (Begehr), 15 (Williams) and 18 (Huang, Mok & Leung). Such "patterns of participation" (Greeno, 1997, p. 9) can be more evident through the comparison of classrooms situated in very different educational cultures and, consequently, feature prominently in several chapters of the companion volume to this book (Clarke et al., 2006).

3. To what extent does an individual teacher employ a variety of pedagogical approaches (and/or lesson scripts) in the course of teaching a lesson sequence?

This study provided a validation check for earlier international studies of mathematics teaching by examining the teaching of sequences of lessons, rather than just single lessons. Variation and consistency in teacher use of pedagogical practices, including the reported lesson scripts (Stigler & Hiebert, 1997), could be examined over sequences of ten or more consecutive lessons. Evidence of the value of studying lesson sequences can be found throughout this book, but Chapters 10 (Kaur, Seah and Low), 17 (Park and Leung), and 21 (Emanuelsson and Sahlström) take particular advantage of this attribute of the research design.

4. What degree of similarity or difference (both locally and internationally) can be found in the learner (and teacher) practices occurring in classrooms identified by the local education community as constituting sites of competent teaching practice?

This study did not prescribe a common set of criteria for competent practice, but instead delegated the responsibility for the identification of competent teachers to the local research group in each country. As a consequence, the practices documented in the classrooms selected for this project constitute an illustration of teaching competence as it is conceived and practiced in each community. Not unexpectedly, competent practice in Shanghai has different characteristics from competent practice in Prague, as evidenced in Chapters 6 (Mok) and 19 (Binterová, Hošpesová, and Novotná). The availability of data from two cities within China offered the opportunity for a fine-grained within-country comparison of practice in Chapter 16 (Mok and Lopez-Real).

5. To what extent are teacher and learner practices in a mutually supportive relationship?

Because of the combination of video and interview data, it was possible to identify the ways in which the practices of learners both afford and constrain specific teacher practices (including the realisation of the teachers' goals). Equally, the same assessment could be carried out of the extent to which teacher practices represent affordances and constraints on the students' practices and goals. Conclusions are drawn in a variety of contexts as to whether teacher and learner practices are best seen as conflicting or as mutually sustaining. This should significantly inform theorising on classroom practice. Interestingly, this question can be answered at both local and international levels. In this book, local answers are prioritised, and in Chapter 12 (Shimizu) juxtaposes the teacher's and student's perspectives on Japanese mathematics classrooms very powerfully. In Chapter 14 (Fried and Amit), tensions between collaboration and authority and between public and private domains are explored from both the teacher's and the students' perspectives. The capacity to contrast public and private discourse is a direct consequence of the research design and is exploited particularly effectively in Chapter 13 (Gallos).

6. To what extent are particular documented teacher and learner practices associated with student construction of valued social and mathematical meanings?

Since learners' constructed meanings and perceptions were accessed within this study, it was possible to assess the effectiveness of teacher and learner actions in promoting particular forms of student learning. This can be seen particularly clearly in Chapter 15 (Williams).

7. What are the implications for teacher education and the organisation of schools of the identification of those teacher and learner practices that appear to be consistent with the realisation of local goals (and those which are not)?

The evaluation of teacher and learner practices against local curricular goals provides a critique of teacher education and the resourcing and organisation of schools. Chapter 9 (Ulep) examines the consequences of an idiosyncratic instructional strategy prevalent in mathematics classrooms in the Philippines. Chapter 7 (Kaur, Low and Seah) looks at textbook and homework use in Singapore. In Chapter 5 (Wood), the US reform agenda becomes the lens through which classrooms are viewed. In this way, findings have the capacity to inform local practice in each participating country and, given sufficient international commonality of educational goals, to identify generic teacher and learner practices worthy of more widespread emulation.

Taking these research questions in combination, the LPS project sought to document both the practices of eighth-grade mathematics classrooms and the meanings, mathematical and social, associated with those practices and to utilise the data collected to draw conclusions, both locally and internationally situated, concerning those practices most likely to lead to the optimisation of learning. The chapters of this book represent the separate attempts of the participating local research groups to interpret the above research questions in locally relevant terms. Researchers within each local group focused their analyses of the mathematics classroom data they had collected on those aspects of practice and meaning most closely aligned with the concerns of both the local school system and the researcher. In order that readers might better understand the local educational context in each country, an appendix is provided in which salient features of the school system and mathematics curriculum are summarised for each of the countries whose classrooms feature in this book.

INTERNATIONAL STUDIES IN EDUCATION: WHAT CAN WE HOPE TO LEARN?

Alternative Approaches

There is a contemporary enthusiasm for studying the mathematics classrooms of other countries. Such international studies are expensive to conduct and those of us who are doing them must justify what it is that they offer as return for our efforts. This brief discussion addresses both the justification of international studies in general and the potential value of this project.

Among the studies undertaken to address the challenge of legitimate international comparison of curriculum as policy and practice, the two studies by Schmidt exemplify these two contrasting challenges. The Survey of Mathematics and Science Opportunities Study (Schmidt et al., 1996) involved over 120 classroom observations in mathematics and science classrooms in six countries, in an attempt to characterise 'a typical mathematics or science lesson' for 9-year-olds or 13-year-olds in the countries being studied. The Curriculum Analysis Study

(Schmidt, McKnight, Valverde, Houang & Wiley, 1997) involved the analysis of curricular guidelines, programs and textbooks from about 60 different countries. While both these studies are indicative of the current activity in international comparative research in education, they employ quite different methodologies and were intended to address different questions from those pertinent to the LPS project. In combination with the work of Stigler and Hiebert (1999), the first of these studies informed the LPS project by offering a documentation of practices identified as nationally characteristic. One message arising from the Curriculum Analysis Study is that the results of the LPS project must be situated in relation to local curriculum priorities in each of the countries in which the classrooms are situated.

One of the best known international comparative studies is the videotape study carried out by Stigler and Hiebert (1999). This study collected samples of classroom instruction from 231 eighth grade mathematics classrooms in Germany, Japan and the USA. Given the success of Japanese students on the Third International Mathematics and Science Study (TIMSS) of student achievement, it would be a simple but naïve approach to identify what it is that Japanese teachers are doing differently from everyone else, and then explore ways to emulate them. Stigler and Hiebert have consistently challenged any such reading of their findings. Instead, they have drawn attention to the essentially cultural nature of teaching. Their research has linked the practices of the mathematics classroom to deeply held values and beliefs about teaching, learning, mathematics and the role of schools.

A couple of simple examples can illustrate the cultural character of mathematics classrooms:

- Japanese lessons are never interrupted from the outside – not by announcements from the public address system, not by lunch monitors, not by anyone. The lesson as a unit is the central element in the culture of the Japanese school, and each lesson must tell a coherent story;
- By comparison, US lessons are conceived as combinations of smaller units, which have their own integrity. From such a perspective, it is not so important if something interrupts the lesson; the number of constitutive activities, such as the practising of procedures, may be reduced, but learning is not irrevocably disrupted.

Classrooms around the world also differ with respect to what can be reasonably asked of students. The public solution of a problem by one student in front of the class is routine in some countries but rare in others. Such time-honoured practices and the values and beliefs that they embody are deeply “cultural” in character. The power of studies such as Stigler and Hiebert’s is that they offer us images of possibilities for practice that we might not otherwise have considered, and they ask us to question the assumptions on which our present practice is based.

Not everyone is unquestioningly enthusiastic about such international studies. Bracey (1997) has questioned the legitimacy of comparing the practices and the products of classrooms embedded in very different cultures seeking to implement very different curricula. As Keitel and Kilpatrick (1999) have argued, these concerns apply equally to studies of student achievement and of teacher practice.

For example, the priority and significance attached to the teaching of mathematical proof in Europe is almost completely absent in Australia. What then is the significance of comparing the practices and outcomes of educational programs that have such different goals? One simple answer is, of course, that it causes us to review those goals, as well as the practices by which we hope to achieve them. Despite the legitimate concerns regarding lack of attention to curricular difference in some research studies, the international education community continues to find many common goals and issues, suggesting sufficient points of common interest to justify comparative investigation.

One of the more intriguing outcomes of recent international comparative research is the diversity of classroom practice that characterises even those countries with similar levels of student achievement. Students in Japan, the Netherlands, and the Czech Republic have performed consistently well on international tests of mathematics performance, yet the pictures that are emerging from contemporary studies of mathematics classrooms in these countries are very different. Such findings do not encourage us to seek the 'ideal' mathematics classroom, but they do suggest that "good practice" is a culturally-determined entity. There are practices employed routinely in classrooms in the Czech Republic that would probably never translate to an American setting, for example, and the same comment would apply to the translation of some Hong Kong classroom practices to Australia or Sweden. However, even these untranslatable practices have power as catalysts for discussion and reflection on the practices of our classrooms and the values that underlie them. Other classrooms, in Singapore for example, might offer models of practice that might be successfully emulated by American teachers, and *vice versa*. One principle will hold true in any such emulation: teachers seldom adopt, they almost always adapt. It is a reflection of teacher professionalism that this is the case. One criterion for the effectiveness of the adapted activity will be its congruence with the existing culture.

The inclusion of the learner's perspective must enrich our portrayal of mathematics classrooms. Indeed, its absence from international comparative research calls into question the adequacy of previous research to do more than describe teacher practice, lacking either associative or explanatory potential. It seems reasonable to suppose that the meanings which students ascribe to the actions of their teachers and their classmates are as culturally-specific, and as significant for our understanding of classrooms, as the actions themselves. Any portrayal of mathematics classrooms in different countries can hardly avoid the obligation to document both the practices extant in those classrooms and the meanings that participants ascribe to those practices. Further, any evaluation of the relative merits of the practices of such classrooms can only be made through the accumulation of data on the meanings constructed by learners in these classrooms.

As will become evident in Chapter Two, we cannot characterise the teaching of a country or a culture on the basis of our selective sampling of teachers and lesson sequences and this was never our intention. Nor do we claim to compare teaching in one country with teaching in another. The research design was developed to support analyses intended to portray, to compare and to contrast teachers and their

classrooms, not cultures. Of course, the original choice of school systems (Germany, Japan, and the USA) was not accidental. It was intended to complement any general claims of national typicality made by the TIMSS video study (Stigler & Hiebert, 1999) by situating identified prevalent practice in relation to the antecedent conditions and consequent outcomes that might transform description into explanation.

The documentation of the practices of mathematics classrooms in other countries causes us to question our assumptions about our own practice. As the findings of these studies become more widely available, they will be increasingly utilised in the professional development of mathematics teachers. If our goal is continual improvement, then we must explore the practices of others whose goals resemble ours, and we must seize every opportunity for a fresh perspective on our own practice. Participating research teams (and you, the reader) have the opportunity to compare and contrast the practices occurring in some of the better mathematics classrooms in their country with those occurring in the classrooms of teachers adjudged competent by the education communities of other countries. Such comparisons should be universally beneficial.

The essential characteristic of this study of mathematics classrooms is the commitment to an integrative approach. Adaptation of a research design developed for an Australian study for use in researching classrooms in twelve different countries anticipated a much more global examination of practice than that possible with data grounded in a single country. The commitment to examining the interdependence of teaching and learning as related activities within an integrated body of classroom practice accepts an obligation to document (and analyse) relationships between participants' practices as well as the occurrence of the individual practices themselves. The importance attached to the meanings that participants attribute to their actions and the actions of others and to the mathematical and social meanings that are the major products of the classroom requires a methodology able to access participants' accounts of those meanings and to integrate these within a coherent picture of the classroom.

Whereas the companion volume to this book (Clarke et al., 2006) reports the results of analyses that sought to make explicit comparisons of practice between classrooms internationally, this book adopts a more introspective approach. What follows are accounts of researchers investigating the classrooms of competent teachers in their "local" community. The issues addressed are those most salient to the researcher and the community. This book reflects the eclectic spirit of the LPS community. Rather than subjecting classroom practice in every country to a single constraining analytical framework, it celebrates diversity. The Learner's Perspective Study was guided by a belief that we need to learn from each other, rather than decide who is doing what better: inclusion rather than evaluation. The resulting chapters offer you deeply situated insights into the practices of mathematics classrooms in twelve countries: an insider's perspective.

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