



## Kikan-Shido - Between Desks Instruction\*

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Other papers in the same symposium were:

Ida Ah Chee Mok: "Learning Tasks"  
Eva Jablonka: "Student(s) at the Front"  
Joanne Lobato: "Guided Development"  
Yoshinori Shimizu: "Matome: Summing Up"

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### Abstract

*By examining classroom practice over sequences of ten lessons, the Learner's Perspective Study provides data on the teacher's and learners' participation in the co-construction of the possible forms of participation through which classroom practice is constituted. The use of post-lesson video-stimulated interviews offers additional insight into participants' intentions, actions and interpretations. This paper first postulates the existence of co-constructed whole class patterns of participation and then documents one such pattern of participation: Kikan-Shido (between desks instruction), both as it is enacted and as it is perceived by the classroom participants. In this case, the documented pattern of participation is also associated with a recognizable Lesson Event: Having a form that recurs in the mathematics classrooms of many countries, but serving a variety of different functions across those classrooms. This paper details the use of Kikan-Shido in three Australian classrooms, and makes comparison with its occurrence in mathematics classrooms in China, Japan and the USA. In each case, the lesson event, Kikan-Shido, can be identified with a locally-enacted pattern of participation to which teacher and students subscribe and which teacher and student have agency to exploit and to shape. While the form of Kikan-Shido has universal features, its function in each classroom provides the basis for an informative comparison of those classrooms practices.*

### INTERNATIONAL COMPARISONS OF CLASSROOM PRACTICE

The practices of classrooms are the most evident institutionalized means by which the policies of a nation's educational system are put into effect. Given this, the classroom seems a sensible place to look for explanations and consequences of the differences and similarities identified in international comparative studies of curriculum, teaching practice, and student achievement (see Clarke, 2003a).

Within the specific focus of classroom practice, the central problem of international comparative research translates into:

Are there nationally-specific characteristics of classroom practice?

How best might the practices of classrooms be compared internationally if our purpose is to inform those practices?

NB. The second question remains both valid and important, whether the answer to the first question is “Yes” or “No.”

The curriculum is the embodiment of the aspirations of the school system. To a significant extent, the teacher is the agent of the system by whose actions the curriculum is put into effect. Teachers, however, interpret the curriculum in idiosyncratic fashion, within the constraints and affordances of both system and culture. Both the curriculum and the teacher have been the focus of recent international comparative study. Among the studies of curriculum and teaching practice, we can lose sight of the student. Thorsten makes this point beautifully.

What is absent from nearly all the rhetoric and variables of TIMSS pointing to the future needs of the global economy is indeed this human side: the notion that students themselves are agents. TIMSS makes students from 41 countries into passive objects of 41 bureaucratic gazes, all linked to the seduction of one global economic curriculum.

(Thorsten, 2000, p. 71).

Educational research has increasingly drawn our attention to the importance of the social processes whereby competence is constructed and in which competence is constituted (for both teaching and learning). In particular, the agency of the student, the nature of learner practice, and the cultural specificity of that agency and that practice must be accommodated within our research designs. The Learner’s Perspective Study, from which this paper draws its data, has effected that accommodation.

### *Studying Lesson Structure*

Lesson structure can be interpreted in three senses:

- (a) At the level of the whole lesson - regularity in the presence and sequence of instructional units of which lessons are composed;
- (b) At the level of the topic – regularity in the occurrence of lesson elements at points in the instructional sequence associated with a curriculum topic, typically lasting several lessons;
- (c) At the level of the constituent lesson events – regularity in the form and function of types of lesson events from which lessons are constituted.

A research design predicated on a nationally representative sampling of individual lessons, as in the TIMSS Video Studies (1995 and 1999), inevitably reports a statistically-based characterization of the representative lesson (the first of the alternatives listed above). The analysis of video data collected in the first TIMSS video study (Stigler and Hiebert, 1999) centred on the teacher’s adherence to a culturally-based “script.” Central to the identification of these cultural scripts for teaching were the “lesson patterns” reported by Stigler and Hiebert for Germany, Japan and the USA, and the contention that teaching in each of the three countries could be described by a “simple, common pattern” (Stigler & Hiebert, 1999, p. 82).

The characterisation of the practices of a nation’s or a culture’s mathematics classrooms with a single lesson pattern has been problematised by the results of the Learner’s

Perspective Study (Clarke, 2003b; Clarke & Mesiti, 2003; Jablonka, 2003; Mesiti, Clarke & Lobato, 2003; and Shimizu, 2003). The recent report of the TIMSS 1999 Video Study (Hiebert et al., 2003) employed ‘lesson signatures’ rather than ‘lesson patterns’ to characterize differences between the practices of international mathematics classrooms internationally. These lesson signatures characterize national norms of practice in terms of the prevalence of different activity types at different points in the lesson. The resultant ‘signatures’ remain insensitive to the location of the sampled lesson(s) within a topic sequence (Clarke, 2003c). As such, they can give a misleading impression that the structure of any particular lesson is independent of whether it is the introductory lesson at the commencement of a topic, a consolidation or developmental lesson later in the topic sequence, or a summative lesson occurring towards the end of a topic.

### *International Comparison and National Typification*

In terms of international comparison, it is useful to consider which of the three forms of lesson structure above are likely to prove useful as units of comparative analysis. It is important to distinguish between the processes of national typification and international comparison. Consequently, it is important to recognize that the most appropriate unit for national typification may not prove useful for international comparison. In terms of national typification, we need to address the question “Is a nation’s or a culture’s classroom practice, most usefully characterized at the level of the whole lesson, in the manner in which a topic is constructed, delivered and experienced, or in the form and function of the specific activities from which lessons are composed?” The same three alternatives are available for the purposes of international comparison.

There are two quite distinct methodological alternatives:

#### Alternative 1.

If two groups of objects are to be compared then one approach is to consider these two questions:

Difference – “What is the characteristic about which the *comparison* is to be made?”

Similarity – “How might each group of objects be separately *typified* with respect to that characteristic?”

The international comparison of national norms of student achievement could be described as conforming to this approach.

The order in which these two questions are posed is a major methodological signature.

#### Alternative 2.

If two groups of objects are to be compared, consider these two questions:

Similarity – “Which characteristics appear to *typify* this collection of objects?”

Difference – “What *comparisons* can be made between these two groups of objects using the identified characteristics?”

Posing the questions as in Alternative 2 reduces the danger of constraining the data to a predetermined structure, but may lead to the typification of the two groups by different emergent characteristics, restricting the common bases on which comparison of the two groups might be made. It should be noted also that Alternative 2 assumes a domain within which comparison is sought, such as classroom practice or curricular policy.

In terms of lesson structure, it might be that for one nation or culture there is no nationally characteristic structure to the lesson as a whole, but that particular types of idiosyncratic lesson events offer the most appropriate typification. For another nation or culture, there could be a high degree of regularity to the composition of lessons, or in the sequencing of particular types of instructional activity in the delivery of a topic. Such differences in the form of typification provide a basis for international comparison that reflects something more essential to each than the identification (imposition) of the same structural level as the basis for the comparison. The methodological choice of Alternative 1 makes the basis for comparison a matter of prescription based on either theory or on the prevailing educational priorities of the country conducting the study. Choice of Alternative 2 makes the identification of possible bases for comparison an empirical result of the research.

### *Lesson Events*

At the 2003 AERA symposium on Lesson Structure, at least two analytical units were offered as the basis for legitimate comparison of mathematics classrooms internationally: The Lesson in Sequence (see Shimizu, 2003) or the Lesson Event. The Lesson Event is conceived as an event type sharing certain features common across the classrooms of the different countries studied. Lesson Events identified in LPS data include: Beginning the Lesson, Learning Tasks, Student at the Front, Guided Development, Setting the Task, Walking Between Desks, and Summing Up. Each individual Lesson Event had a fundamentally emergent character, suggested by the classroom data as having a form sufficiently common to be identifiable within the classroom data from each of the countries studied. In each classroom, both within a culture and between cultures, there were idiosyncratic features that distinguished each teacher's enactment of each Lesson Event, particularly with regard to the function of the particular event. At the same time, common features could be identified in the enactment of Lesson Events across the entire international data set and across the data set specific to a country. The symposium of which this paper is a part reports these differences and commonalities.

### *The Data*

As described above, this paper and the others that make up this symposium, report the results of the Learner's Perspective Study based on analyses of sequences of ten lessons, documented using three video cameras, and supplemented by the reconstructive accounts of classroom participants obtained in post-lesson video-stimulated interviews, and by test and questionnaire data, and copies of student written material (Clarke, 1998, 2001, 2003a). In each participating country, the focus of data collection was the classrooms of three teachers, identified by the local mathematics education community as competent, and situated in demographically different school communities within the one major city. This gave a data set of 30 'well-taught' lessons per school system (Berlin, Hong Kong, Melbourne, San Diego, Shanghai, and Tokyo), and, for the purposes of the analyses reported here, a total of over 180 videotaped lessons, supplemented by over 20 teacher interviews, and almost 400 student interviews. The teacher and student interviews offer insight into both the teacher's intentions in the enactment of the particular lesson event and the significance and the meaning that the students associated with that event type

### *Methods of Instruction and Patterns of Participation*

Greeno observed that “Methods of instruction are not only instruments for acquiring skills; they also are practices in which students learn to participate” (Greeno, 1997, p. 9). With regard to the learning of mathematics, some classroom practices will resemble those of other communities who habitually make use of skills specific to mathematics (the mathematical activities of accountants or surveyors, for example), and some practices will be classroom-specific in the sense of relating to the process of learning (providing particular forms of explanation, asking particular types of questions when in doubt, seeking and offering assistance, and so on). Greeno also made reference to “patterns of participation” developed by students (Greeno, 1997, p. 9). This is a particularly apt phrase, combining the fluidity of participation in a social setting with the implicit regularity of a pattern. If we are to understand what occurs in social settings, it is the patterns of participation that are likely to offer insight. As will be argued, in considering social interactions in the classroom, the teacher must be considered co-participant with the students in any practices of the classroom community.

Like Wenger (1998), this analysis of patterns of participation in classroom settings stresses the multiplicity and overlapping character of communities of practice and the role of the individual in contributing to the practice of a community (the class). Clarke (2001) has discussed 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 customizing 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. By examining classroom practice over sequences of ten lessons, the Learner’s Perspective Study provides data on the teacher’s and learners’ participation in the co-construction of the possible forms of participation through which classroom practice is constituted (cf. Brousseau, 1986).

But co-construction *of practice* and joint participation *in practice* do not connote commonality of purpose among the participants in that (classroom) practice. To some extent both teacher and student share a common interest in advancing the student’s learning, but they are not positioned identically within that purpose (cf. Davies & Harré, 1991), and their classroom participation will both confirm these positionings and co-construct them.

In this paper, the proposition is examined that not only can the lesson event “Kikan-Shido” (Between Desks Instruction) serve as the basis for useful comparison of classroom practice across several countries, but it also provides evidence for the co-constructed nature of a particular whole class pattern of participation. This suggests that such Lesson Events, while deriving from the teacher’s instructional intentions and reflecting structural characteristics of the mathematics lessons of that classroom, also represent the consequence of a co-constructive process by which particular patterns of participation are established in the classroom.

Classroom Practice is a form of communal collaborative activity constituted as it is constructed through the participation of both teachers and learners and only understood (and optimised) through research that accords value and voice to all participants. Teaching

and Learning are not simply distinct but interdependent activities that share a common setting, rather they should be conceived as aspects of a common body of situated practice and studied as such. It is ironic that recognition of this fundamental unity is enshrined in several languages other than English and that the dichotomisation of Teaching and Learning may be, in part, an artefact of our use of English as the lingua franca of the international Education community. This paper and the analyses reported in this symposium provide evidence of the mutuality of teaching and learning and support their interpretation as components of a single body of communally constituted practice. We are assisted in this argument by Harré's work on social positioning (Davies & Harré, 1991) as this gives recognition to the mutuality of social practice, where the positioning of an individual carries both rights and responsibilities and is only sustained by mutual compliance. Of course, a position can be contested and negotiation is a constitutive element of classroom practice (see Clarke, 2001). Classroom Practice as a form of communal collaborative and negotiative activity is constituted as it is constructed through the participation of both teachers and learners and only understood (and optimised) through research that accords value and voice to all participants. It is for this reason that the Learner's Perspective Study supplements the multi-camera documentation of classroom activity with post-lesson reconstructive interviews of the participants.

### *Participation*

Lave and Wenger provide a plausible connection between practice and learning, in which the learning is constituted as participation in practice and the mediating mechanism is the situated negotiation of meaning: "Participation is always based on situated negotiation and renegotiation of meaning in the world" (Lave & Wenger, 1991, p. 52). In this view, participation is not the medium by which learning is afforded, it is the thing itself. As such, patterns of participation take on a heightened significance as established forms of practice. Legitimate participation in institutionalised practice is taken to signify learning or the acquisition of knowledge. One focus of this paper is those patterns of participation that stand in the same regard to the practices of the disciplines of science or economics as the classroom does to the research laboratory or the stock exchange.

In the remainder of this paper, I discuss the lesson event (kikan-shido or between desks instruction) from several perspectives: Its form as observed on the video record of class activity; its meaning as reconstructed by teacher and students in post-lesson video-stimulated interviews; and its function (intention, action, and interpretation). My main purpose in this paper is to use kikan-shido to establish the legitimacy and utility of lesson events as one basis for international comparison of classroom practice. A secondary purpose is to examine the legitimacy of the characterisation of kikan-shido as a whole class pattern of participation, and to situate the actions of teacher and learners in relation to this pattern of participation. It will be argued that while engaging in kikan-shido, the teacher and the students participate in actions that are mutually constraining and affording, and that the resultant pattern of participation can only be understood through consideration of the actions of all participants. As will be seen, a characteristic of kikan-shido, as it is practiced in the Australian classrooms, is the implicit devolution of the responsibility for knowledge generation from the teacher to the student, while still institutionalizing the teacher's obligation to scaffold the process of knowledge generation being enacted by the students. Comparison with the enactment of kikan-shido in other classrooms provides significant insight into the pedagogical principles underlying the practices of different

classrooms internationally. In making this argument, I am positing lesson events as a category (and kikan-shido as a particular instance) with the capacity to sustain useful international comparisons of classroom practice.

### KIKAN-SHIDO (BETWEEN DESKS INSTRUCTION)

Japanese teachers possess an extensive vocabulary with which to describe their practice. Among the myriad terms available to them is the term ‘Kikan-Shido,’ which means ‘between desks instruction’ in which, while the students are engaged in “practice”, either individually or in groups, the teacher walks around the classroom, observing students at work, and may or may not speak or otherwise interact with the students. This activity is a familiar one to teachers in American and Australian classrooms, and to teachers in many other countries as well. As the translation (Between desks instruction) makes clear, the Japanese term for this activity focuses on describing the teacher’s actions. If I were to use the English translation as the label for this pattern of participation, I would be maintaining the focus on the teacher’s activity, whereas the whole purpose of my argument is to demonstrate the mutuality of teacher and student participation in this activity. So, for the purposes of this discussion, I will use the Japanese term, ‘Kikan-Shido’ as a signifier or cipher for a more general conception of the particular activity – one that takes into account the patterns of participation of both teacher and students in the activity designated by ‘Kikan-Shido.’

#### *Kikan-Shido in Australian Classrooms*

In analyzing the Australian LPS video data, it was clear that all three teachers made extensive use of “between desks instruction” in every lesson, and commonly for extended periods of many minutes. During this time, the Australian teachers monitored the students’ current activities and, sometimes, whether or not homework had been completed. While walking around the classroom, the Australian teachers frequently conversed with the students: Questioning, prompting, and generally scaffolding the students’ activity. In the lessons analysed in this study, the scaffolding activity was much more likely to involve questioning students than simply telling them an answer or a procedure to use.

For the Australian teachers, the activity of “between desks instruction” appeared to have at least three principal functions: (i) monitoring and encouraging current on-task activity, (ii) actively scaffolding this on-task activity, and, sometimes, (iii) monitoring the completion of homework. On many occasions teachers would kneel or sit beside a student (or students) and engage them in conversation about the task they were attempting.

One aspect of this event type that varies even within the Australian data is what the other students were doing during this activity, particularly while the teacher was ‘tutoring’ a particular student. This (what the others are doing) may be one of the more useful characteristics that distinguishes the version of kikan-shido practiced in one classroom from that practiced in another.

The first three examples included in the Appendix to this paper show how each of the three Australian teachers engaged in the activity of “Between desks instruction” – the

three examples were chosen to illustrate the diversity in the enactment of kikan-shido evident within the Australian data.

Example 1: A1-L8 (0:33:47 to 0:36:26)<sup>1</sup> Guided Questioning by Teacher – Non-Routine Task

Example 2: A3-L8 (0:27:59 to 0:31:52) Guided Questioning by Teacher – Routine Task

Example 3: A4-L12 (0:31:18 to 0:33:27) Explicit Teacher Demonstration

### *Kikan-Shido in China, Japan and the USA*

LPS researchers in China, Japan and the USA identified examples of kikan-shido from within their data. The examples selected from each country's data set were intended to illustrate whatever variety was evident in the enactment of kikan-shido in the classroom data collected in that country. The resulting compilation of video excerpts could then be analysed for similarities and differences in the ways in which the basic form of kikan-shido was enacted in the different classrooms, and, to some extent, the apparent similarities and differences in function.

*China* – The classrooms in Shanghai and Hong Kong appeared to appeal to different pedagogical principles. Specifically, in Shanghai, teachers appeared to assume a capacity in their students to develop new mathematical knowledge. In post-lesson interviews, the teacher from Shanghai School 2 made comments such as: “During the process, don’t teach them mechanically, don’t teach them mechanically, let them brainstorm, enhance their flexibility” and “I was not afraid that students had all sorts of questions, I just let them appear . . . Sometimes if you restrict them from doing this or that, their problems won’t appear, right? But the problems will appear tomorrow even if they didn’t today, right?” (SH2 – TI3).

This teacher made reference in all three interviews to an activity that was translated as *inspecting around*. “I *inspected around* and took a passing glance. You have to discover those good points from the students. If there are any mistakes, you have to sort them out” (SH2 – TI2). This echoed the statement by one student: “Because the teacher, when we were working on the exercises, he came and looked at what we wrote, that can tell us what’s wrong, and then we have to avoid making the mistakes again. (SH2- L3 – Cathy 1). In several interviews, students expressed their appreciation of teacher explanations and the correction of their errors in both whole class and one-on-one settings. The significance of kikan-shido as a component of teacher practice is underlined by this teacher: “The teacher should have an objective when *inspecting around*, right?” (SH2 – TI2). This particular teacher made immediate and explicit public use of observed student misunderstandings or difficulties. The following examples from SH2 – L09 (00:32:00:00 to 00:43:10:00) make clear just what the teacher meant by “If there are any mistakes, you have to sort them out.” On recognizing a particular difficulty, the teacher would typically make very explicit corrective statements to the whole class.

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<sup>1</sup> Using the data referencing convention A1-L8 (0:33:47 to 0:36:26) should be interpreted as “Australian School 1, Lesson 8, classroom episode from 33 minutes and 47 seconds to 36 minutes and 26 seconds from the commencement of the lesson.” In other such references: HK = Hong Kong, J = Japan, SH = Shanghai, and US = United States. References to TI and SI are to Teacher and Student post-lesson Interviews. Student interviewees for a particular lesson are named in CAPITALS other students in lower case.

00:32:00:00	T:	[T walking around]
00:32:46:25	T:	Work on the two groups at the same time, work at the same time.
00:33:22:15	T:	Stop for a while. Stop for a while, work according to the format I taught you, see that? Work at the same time. That won't be so confusing, and it's easier to get the right answer, you should get equations four and five then, form a system of equations, and solve the system. [CASTO, CRYSTAL working on the questions] [T walking around]
00:34:02:19	T:	[to S] Why didn't you choose to eliminate z, but...
00:34:24:19	T:	I said, work according to the format I taught you! [Cathy writing on the blackboard] [Case writing on the blackboard]
00:40:46:07	T:	Check your answers by substituting it into the original equation if you have finished it! [Walking around]
00:42:44:17	T:	Check your answers by substituting it into the original equation if you have finished! Find out the reason if you get a wrong answer.

Consistent with the conclusions drawn by Huang (2002), the practices of teachers in Hong Kong appeared predicated on different pedagogical principles from those underlying practice in Shanghai. In Hong Kong School 1, the teacher would walk between desks, observing student work in order to understand any student difficulties. Instruction would then be given to the whole class, drawing on the insights gained from observations during kikan-shido. In Hong Kong School 3, student expectations were very clearly expressed in one student's complaint: "Sir. I have been calling for help for so long, you still can't hear me!" The nature of the teacher's interactions with students in such situations is illustrated in this example [translated from Chinese]:

Gary: Teacher, the two lines are really close.

Teacher: Yeah, they are close!

Gary: So how do we do it?

Teacher: You drew them wrongly. Your table is wrong. The numbers on your table are wrong. For one, for one, it is zero point four. For three, twelve. It's two! For five, it's three point six. Right! This line is fine. This line is correct. It's zero point five for one, right! It's nineteen for three. One point nine. Correct! But you drew the line wrongly

Gary: Maybe I drew the line wrongly.

Similarly, in Hong Kong School 2, the teacher's guidance during kikan-shido was typically quite directive: "So you have to write a few more steps here. The first equation becomes this, and the second equation becomes that" (HK1 – L11 – 28 mins. 22 secs. – original in English).

*The USA* – In the US data, only the teacher from School 3 made extensive use of "Between desks instruction." In School 1, the teacher worked almost exclusively with the whole class. In School 2, the teacher sometimes circulated when students worked on small group activities, but her use of kikan-shido appeared to be purely for monitoring purposes, and she did not help students individually.

In US School 3, in nearly every lesson the students worked on practice problems for the last 20 minutes of class, while the teacher circulated around the classroom. The students always sat in small groups of four. When they were assigned problems, they were allowed to work with each other. Some did so and others worked individually. After most students had completed the problem, the teacher interactively worked through the problem with the whole class. She then assigned practice problems, which typically included a mixture of items putting the new information into practice and some ‘spiraled’ routine practice on old skills. The students would typically work for about 20 minutes while the teacher engaged in “Between desks instruction,” walking around the room, stopping at small groups.

Joanne Lobato identified a wide range of functions associated with Kikan-Shido as a Lesson Event in the mathematics classroom of US School 3:

- a. monitoring progress (e.g., “Are you doing OK?”)
- b. encouraging students to help each other
- c. actively scaffolding and providing hints for the current problems
- d. managing work for students who have missed assignments
- e. giving voice to students’ ideas
- f. evaluating solutions
- g. getting students on-task
- h. encouraging students; telling them that they can do it
- i. reminding students of what math “rule” to use

Example 4 in the Appendix illustrates how some of these functions were realized in the mathematics classroom of US School 3 (US3–L5 (00:46:15 to 00:51:28)).

*Japan* – The teacher in Japanese School 1 affirmed the significance of Kikan-Shido as a Lesson Event in the post-lesson interview following Lesson 9, where she stressed the monitoring function of Kikan-Shido: “I was walking between desks (kikan-shido) and seeing how students were doing. I could see how most of the students are doing by looking from the front of the class. But I cannot see ALL the students, and it is hard to see how those who are most likely to be behind are doing.” This teacher also used the Kikan-Shido activity to give hints to students who have difficulties. The information gained by Japanese teachers during Kikan-Shido is available for use in the Matome (Summing Up) stage of the lesson (see Shimizu, 2004, this symposium). This use of information gained during Kikan-Shido appears to be idiosyncratic to Japanese classroom practice.

## LESSON EVENTS AS WHOLE CLASS PATTERNS OF PARTICIPATION

Of major interest for the purposes of this paper is the evidence that Kikan-Shido was a pattern of participation to which both teacher and students subscribed and which was co-constructed by them. The proposition is that such lesson events are co-constructed patterns of participation to which members of the classroom community subscribe. The Appendix to this paper provides the transcript and some descriptive comments taken from the video record of three different instances of kikan-shido in Australian classrooms. These three examples convey something of the form of the interactions occurring between teacher and students during kikan-shido. The video record documented sufficient instances of kikan-shido for it to be classified as a recognisable classroom activity. In designating kikan-shido as an example of a “whole class pattern of participation” I need to demonstrate that

it had a recurrent form, recognisable to those participating in it. This is not to say that the meanings attributed to the activity by those participating in it were correspondent. The point has already been made that individuals can participate in a practice whilst being positioned differently within it, and whilst attributing different characteristics to the activity. That is, without being identical, the participants' descriptions of the activity make it clear that they are talking about essentially the same form, but they may attribute quite different functions to that form. The other essential element is the need to demonstrate that all participants can shape the particular body of practice signified by kikan-shido. That is, that the pattern of participation is co-constructed. Since my purpose here is to posit a form of existence proof, it is sufficient to focus only on the Australian data.

### *Relating Teacher and Student Perspectives*

The interview protocol placed the remote control for the VCR in the hands of the interviewee (teacher or student), who was asked to "fast forward through those sections of the lesson that were not important to you, but play at normal speed those sections that were important to you and tell me what you were doing, thinking and feeling at that time." The interviewer would elicit additional information from the interviewee where the account was unclear or appeared to be incomplete. In the interview transcripts that follow, ". . ." is used to signify a pause, and "//" signifies an interruption and italics signify that a word or phrase was spoken emphatically.

### Interview with Teacher 1 (T1)

Int That bit of the lesson where you come up to an individual student . . . they are looking for it and and and they // smile

T1 // oh really oh *good* [delight in voice]

Int in the interview and they say 'it's my turn

T1 //Mmh

Int // Mrs T1's spending her time // with me' so I am very interested

T1 // yeah yeah

Int in the thinking

T1 //oh good

Int //behind the ah.

T1 um it's just a way for me to connect with them.

\* \* \* \* \*

T1 and I get down a lot too

Int yes

T1 like I get down on my knees a lot and try not to be . . . I don't want my presence to be *overpowering*. I don't want them to think, "Oh she's *over* me just telling me what to do." I don't want to come down on them

Int Yes

T1 and so a lot of the time I

Int Yes

T1 I do kneel down . . . and I try to get on their level.

\* \* \* \* \*

T1 Oh . . . this was *terrible* [slow] . . . I-I ar as soon as I started going around oh I felt bad about this . . .

It just sort of . . . was made *very obvious* that I hadn't . . . but that that's also another thing that I do, I do go to see them straight away so they can tell me . . . what they don't understand – that that gives me a much better . . . understanding of whether . . . what I have done up the front is of is of any value at all.

#### Interview with Students from School 1

S1 It's really good when Mrs T1 comes around to everyone individually . . . it's so if you are not sure about anything . . . you just like . . . she'll come around.

Int Alright . . . it's pretty good you say can you tell me more . . .

S1 Yeah like . . . say if you um don't know something when . . . she's talking . . . when she's up the front and . . . yeah of the class and she comes round to everyone to see like how . . . how you've been doing . . . see . . . so you can see like . . . if you are doing well or not and understanding you can just ask her individually.

\* \* \* \* \*

Int When did you come right . . . did you say // when Mrs T1 came around?

S1 // When – when um . . . um no

Int Um no?

S1 Um yeah . . . yeah when Mrs T1 was coming around individually

Int Right . . . okay and so what happened then?

S1 Yeah and then . . . *I got it* [pleased laugh] . . . I just did it

Int So did Mrs T1 *see* which bit you didn't have? . . . Was it when she talked about . . . ?

S1 Like when . . . when she was explaining it? Yeah it was when everything like . . . when I got what I did wrong [understood what I did wrong].

\* \* \* \* \*

Int Is there a little bit you are looking for in particular?

S2 Ah . . . probably the bit where Mrs T1 came over and helped me out with . . .

Int Oh

S2 Because um . . . before she came I was . . .

Int //yes

S2 //getting pretty *frustrated* because I didn't know how to do it . . . and then . . . when she came over and explained how to do it yeah

\* \* \* \* \*

S2 But I – I *couldn't get it* . . . but as *soon* as Mrs T1 just . . . in less than *two minutes* . . . she just showed me um . . . how to use pi for them and then . . . I just did it.

Int Oh okay! So that's a *very* big help? As you said yes . . . [thoughtful] *okay*.

S2 She's a *big* help . . . it's such a *change* from . . . last year um I had . . . a pretty *bad teacher* . . . and I spent most of the lesson with my hand up wanting to get help but she didn't – and she didn't help me . . . and . . . I *failed* . . . *every* maths test – I can't remember if I passed . . . *even one* . . . but Mrs T1 . . . this year she *explains* . . . *everything* to *everyone*.

\* \* \* \* \*

S2 It is good to know you have got a *good teacher* who can . . . *help* you . . . and . . . if you don't know anything . . . she's there.

There are four key aspects to Teacher 1's participation in kikan-shido that emerge from the data cited above:

- The students' perception of the teacher's commitment to be "there" for "everyone"
- The teacher's deliberate use of physical positioning to minimise any intimidation of the students and, implicitly, to reduce the prominence of the inevitable power difference between teacher and student
- The inadequacy of the student's use of the term "explain" to encompass the teacher's instructional action, hinted at in S1's use of "I got it . . . I just did it." Video evidence suggests that the teacher's actions were commonly much less directive or transmissive than is suggested by the term "explain" (see Examples 1 and 2 in the Appendix).
- The teacher's utilisation of kikan-shido as the means by which to gauge the success of her whole class presentation.

Teacher 1 also said "so I went around and checked with some key students whom I know struggle" indicating, from the teacher's perspective, that particular students serve as barometers of class understanding. These students are assigned a particular role by the teacher within the practice of kikan-shido. It may also be that this role entails specific positioning of the students by the teacher as 'needy' or 'deficient' or simply as 'class spokesperson' (see Davies & Harré, 1991). Further analysis will be required to establish the extent to which such positioning occurs and whether or not students challenge any such positions assigned to them. Given Darren's comments, quoted below, it is possible that some students might see advantage in being positioned as needy for the purposes of kikan-shido.

Teacher 3 referred to two other aspects to kikan-shido: Insights into student thinking and providing motivational support to students.

T3 I could see . . . I could actually . . . pick what was going on in her head  
And

T3 She needs that encouragement . . . she . . . she's not . . . particularly independent and she's not well skilled and she relies . . . heavily on a lot of other students . . . on this day she was by herself doing the task . . . and that . . . that was . . . really pleasing.

Both teachers (T1 and T3) attached a high level of significance to the pattern of participation that I have referred to as kikan-shido and their students seemed to share this valuing. Indeed the students' participation in classroom practice in general seemed to be predicated significantly on the belief that kikan-shido would provide them with valued support should they need it.

Evidence that students contribute to the form taken by a pattern of participation such as kikan-shido can be found in a statement from a seventh-grade student in an earlier study.

Int That takes care of all the girls. But you're not saying surely that the boys never muck around.

Davy Oh we do muck around (both laugh). When me and Darren we just talk. When we've got our hands up we just talk during so she comes. Then when she comes we get back to work. Or maybe some hot day we're just talking or mucking

around, or pushing people around. Something like that . . . 'Cause sometimes I might have me hand up for five minutes. She's right next to me and she goes over the other side of the room. And that's why I start mucking around . . . so I get her attention.

This provides explicit acknowledgement by the student that the teacher's participation in kikan-shido can be manipulated. Kikan-shido as a pattern of participation is clearly a dance done by teacher and students, where the steps are improvised according to need.

The extent to which kikan-shido, as practised in the Australian classrooms analysed in this study, has distinctive cultural or national features is immediately suggested when classrooms in other countries are investigated for evidence of the same practice. From the comparison of sequences of ten lessons, taught by three competent Australian teachers, with matching data sets from countries such as the USA, Hong Kong, Mainland China, and Germany, it appears that, in general, the Australian teachers commit more time to Kikan-Shido than do the teachers in the other countries.

This observation has certain implications:

- If the teacher is devoting significant proportion of class time to interacting with students either individually or in pairs or small groups – that is, engaging in the Australian form of Kikan-Shido – then certain assumptions are implied as to the capacity of the other students to work independently of teacher whole-class direction.
- This assumption of a capacity for independent activity could be read as a relocation of the agency with regard to knowledge construction. Certainly in the Australian classrooms described by Barnes (2003) and Williams and Clarke (2003) the students were accorded significant agency for the construction of knowledge.
- If a significant proportion of class time is devoted to kikan-shido, then other activities must be allocated proportionately less time. Most noticeably, the Australian teachers appeared to devote less time to presentations to the whole class than their counterparts overseas.
- It appeared that the teachers prioritised individual assistance over whole class explanation.
- The viability of the Australian version of Kikan-Shido as a classroom pattern of participation is highly dependent on class sizes of less than 30 students per class. In Hong Kong, where classes of over 40 are the norm, and The Philippines, where classes frequently consist of more than 60 students, the Australian version of Kikan-Shido becomes extremely problematic.

For the purpose of the discussion here, I have attempted to characterise Kikan-Shido as a Lesson Event with a particular visible form (Between desks instruction) and to argue that Kikan-Shido and other such lesson events should be interpreted as locally-defined patterns of participation, co-constructed by all classroom participants. As a Lesson Event, Kikan-Shido has a recognizable structural form evident across classrooms, but the specific enactment of Kikan-Shido in each classroom displays distinct functional features reflecting patterns of participation specific to that classroom.

## CONCLUDING REMARKS

This paper opened with the proposition that Lesson Events might serve as the basis for international comparisons of classroom practice. The nomination of Lesson Events for this purpose was represented as an empirical product of the Learner's Perspective Study. Kikan-Shido has provided a specific example of such a lesson event.

In this paper, I have also argued that any theory of classroom practice must conceive of the activities in the classroom as co-constructed to a significant extent. Acceptance of this point has implications for the research designs by which we study the activities occurring in classroom settings. A corollary of this point is the problematisation of learning and teaching as distinct processes and of Learning and Teaching as disjoint bodies of practice - at least to the extent that this disjunction is applied to classroom settings. The need has been identified for a single term to encompass the conjoint, co-constructed body of practice signified in Russian by *obuchenie*, in Dutch by *leren*, and in Japanese by *tagushushido*, and approximated in English by *teaching/learning* (Clarke, 2001).

But co-construction of *practice* and joint participation in *practice* do not connote commonality of purpose among the participants in that (classroom) practice. To some extent both teacher and student share a common interest in advancing the student's learning, but they are not positioned identically within that purpose. Even where all participants recognize and subscribe to a particular lesson event (the example used in this paper is *kikan-shido*), they may interpret its function differently.

If we conceive of institutionalised patterns of participation as taking on the status of bodies of practice in the form of characteristic 'lesson events', then their co-constructed nature has further significance. Rather than progressively increasing the competence of their participation in a culturally or socially pre-determined practice (eg Lave & Wenger, 1991), this conception of the origins of practice accords significant agency (however constrained by institutional or cultural norms) to the participants to shape their particular pattern of participation and thereby to influence the nature of that practice. Wenger's more recent writing (Wenger, 1998) assigns significant agency to the participants in a practice. In this paper, some simple examples have been given of how that agency is enacted.

Eugene Ionescu is reputed to have said, "Only the ephemeral is of lasting value." Social interactions are nothing if not ephemeral and, since it is through social interaction that we experience the world, the understanding of social interactions must underlie any attempts to improve the human condition. Our difficulties in characterizing social interactions for the purpose of theory building are compounded by the fluid and transient nature of the phenomena we seek to describe. Attempts to categorise social behaviour run the risk of sacrificing the dynamism, contextual-dependence and variation that constitute their essential attributes. This poses a challenge both for methodology and for theory. The ephemeral nature of social interactions is something that must be honoured in the methodology but transcended in the analysis.

This paper embodies the aspiration to find structure in the ephemeral. To some extent this goal is realised in the conception of Kikan-Shido as an internationally-recognisable Lesson Event: a whole class practice, having a certain visible form, with a locally-enacted

pattern of participation to which teacher and students subscribe and which teacher and student have agency to exploit and to shape. One approach to the characterisation of a social setting is through the documentation of its practices, and to some extent the practices of the classroom can be identified with the activities that we have called Lesson Events. But, while a particular Lesson Event may characterise a recurrent form evident in many classrooms, the function of that Lesson Event will be a consequence of the emerging patterns of participation in which the members of that particular social group engage. Further, the theory that identifies learning with the iterative refinement of participation in practice, can accommodate the fluidity and dynamism of social interactions more successfully through the careful distinction of form and function. In the case of Lesson Events, this means recognising that similar organisational forms can structure our comparison of classrooms internationally, where the substance of those comparisons is the function served by the Lesson Event in each classroom, and the distinctive positioning of classroom participants in relation to that function.

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## Appendix

Three examples of “Between desks instruction” taken from the Australian data

The following three examples show how each of the three Australian teachers engaged in the activity of “Between desks instruction” – the three examples were chosen to illustrate the diversity of practice evident within the Australian data.

Example 1: A1-L8 (0:33:47 to 0:36:26) [Country, School, Lesson Number, Start and End Times]

Example 2: A3-L8 (0:27:59 to 0:31:52)

Example 3: A4-L12 (0:31:18 to 0:33:27)

EXAMPLE 1: A1-L8 (0:33:47 to 0:36:26) – Guided Questioning – Non-Routine Task

0:33:47	T	[to Joe et al.] How're we going? How are we going?
<i>Teacher walking around surveying students' work.</i>		
0:33:50	T	[to Joe] What, why aren't you working...
0:33:54	Joe	[To T] I don't know, I...
<i>Teacher sits with student discusses progress</i>		
0:33:54	T	... as hard as you normally work?
0:33:55	Joe	[to T] I don't like this sh... I don't get it. It's, well, I don't know if they're corners, I don't know if they're...
0:34:00	T	All right. He's [referring to Leon?] on the right track. They're not corners, you're going to get a...
0:34:03	Joe	A circle, a circle...
<i>Teacher gestures to help student visualize the circles arc.</i>		
0:34:05	T	You're going to get a quarter circle, you're going to get a, an arc, that's a quarter circle. All right?
0:34:09	Joe	With a two centimeter diameter.
0:34:11	T	Yes. Radius.
0:34:12	Joe	Oh, O.K.
0:34:13	T	[to ?] He, he won't be able to tell what you've done. All right. Does that help you?
0:34:16	Joe	Can I have my calculator?
0:34:20	T	[to Martin] What have we got?
<i>Teacher moves along same bench group positioning herself between two students. She then assists the group of students at that bench.</i>		
0:34:22	Mart	I got one hundred and twelve point five six [laughs] No I didn't.
0:34:26	T	One hundred and twelve point five six. No, they're not necessarily right. Now, tell me why two hundred first of all.
0:34:32	Mart	Well...

0:34:32	Mart	No, I got one hundred and eight to start off with because I got two centimeters and I put it there and I added on to that which was twenty seven and then I just did it like that.
0:34:45	T	Well we've got this, we've got this square, right, and then we've got this, this circle that's traveling, right, that's traveling around. And when it gets to a corner it's doing that. [Points to board]
<i>Teacher draws on students note paper/book drawing the problem.</i>		
0:34:58	Joe	[to T] one hundred and twenty five point five
0:35:01	T	How'd you get that?
0:35:02	Joe	I worked out the corners and then added everything on.
0:35:06	T	How'd you work out the corners?
0:35:08	Joe	Well I ... two times pi times four .
0:35:10	Leon	It's wrong, It's wrong!
0:35:13	T	four ...which is?
0:35:14	Joe	For four corners, and plus one hundred , well twenty five...
0:35:14	Leon	[to ?] Hey, you don't know which way the coin's going to go?
0:35:16	T	two times pi times four ? This is where you're getting a bit confused. You've got the, you've got all these distances. Do you know what they are?
<i>Teacher explains the next part of the problem in students book.</i>		
0:35:26	Leon	Ow! Ow!
0:35:26	Joe	The length?
0:35:27	T	Yeah, which is? How much?
0:35:29	Joe	twenty five
0:35:30	T	All right, they're each twenty-five, so you're on the right track to start with.
0:35:33	Joe	That's what we had from before.
0:35:35	T	Yeah, that's what you had [points to Martin], you had [points to Carl], no you had first [points at Martin]
0:35:38	Mart	Yeah
0:35:39	T	Right, now the interesting thing is what the coin does when it gets towards the end. Now it doesn't just drop. The coin is rolling so the centre... Or does it drop? I'm confusing myself now.
0:35:52	T	No 'cause the arm... You imagine... The circle's rolling... It would have to be.
<i>Teacher uses arm to demonstrate the action of the coin and the arc of the corner.</i>		
0:36:00	T	So, you've got this happening [moves arm in a curve], and you know that's a quarter circle.
0:36:06	T	So you have to find out what the distance of that line is. How could you do that?
0:36:13	Mart	Um, I dunno.
0:36:15	T	Yeah you do.
0:36:15	Carl	That's two cms, that's twocms
0:36:17	T	What's? Yes good, so how would you find out what I've drawn in dark blue...?

0:36:22	Mart	I'd do what you did there. [Points to board]
0:36:24	T	Yes, can you do that?
0:36:26	Mart	Oh yeah.

EXAMPLE 2: A3-L8 (0:27:59 to 0:31:52) – Guided Questioning – Routine Task

0:27:59	T	Of course you can. Not a problem. Okay, That's fine. How we going here girls?
<i>Teacher goes to end of row and sits down with group of students.</i>		
0:28:07	Robyn	Good.
0:28:08	T	Good? [...] Yeah, good.
<i>Teacher points to example in book.</i>		
0:28:10	Robyn	I don't actually know where I'm up to [...]
0:28:11	T	Because you haven't got your book. Had you done, you hadn't done question four yet have you.
0:28:19	Robyn	Nuh.
0:28:21	T	Okay, let's do that. Because this is what we did the last time we were together, okay, so let's do this together.
0:28:36	T	Good. [...] Mmmhm. [...] What are you going to do with that one?
<i>Teacher focuses on one girl.</i>		
0:28:46	Robyn	Twenty-five over four.
0:28:51	T	One of them is cents and one of them is in dollars. Remember I want them to be the same.
0:28:57	Robyn	Twenty-five...
0:29:03	T	Over...
0:29:03	Robyn	Four.
0:29:05	T	Twenty-five cents over four dollars. But can I mix up cents and dollars?
0:29:14	Robyn	Yep.
0:29:16	T	Well I can if I've got normal money.
0:29:23	Robyn	What am I doing, twenty-five over?
0:29:38	T	Good, now, way to go. Stephen are you writing the setting out down as well, thank you, not just answers. Listen up.
0:29:54	Robyn	Two thousand five hundred.
0:29:57	T	Ooh does that sound anything like it? I've got cents and I've got dollars mixed up.
0:30:01	S	Can you change the...
0:30:03	T	Listen up Robyn, listen here.
<i>Teacher draws girls attention to suggestion raised by a student who has come to the desk.</i>		
0:30:06	?	Can you change the dollars to cents?
0:30:08	T	Yeah course I can. Ooh what was his suggestion?
0:30:13	Robyn	To change the four dollars into cents.
0:30:16	T	Was that a good suggestion?

0:30:17	Robyn	Yes.
0:30:18	T	Will they have the same units then?
0:30:19	Robyn	Yes.
0:30:20	T	Ah, very good. That was handy that he came along, wasn't it?
0:30:23	Roslyn	Miss?
<i>Teacher looks over to other student.</i>		
0:30:25	T	Yes.
0:30:27	Roslyn	Where's Ahmet at?
<i>Teacher gets up and goes to Ahmet's desk. She leans over then sits on desk to check Ahmet's progress.</i>		
0:30:31	T	Now, Ahmet did these last time. Ahmet, can you do your conversions? Can you do your kilometers into metres and...
0:30:40	Ahmet	Yeah.
0:30:44	T	I think you probably can. Yeah, so these ones down here. He was doing a really good job with them last time, weren't you? Yeah, doing really well. Will, come on, let's go love. Yeah. Okay, good.
<i>Teacher goes back to girls' table and continues to help with the problem.</i>		
0:31:05	Viv	Oh.
0:31:08	T	Oh, something missing. Yeah, certainly is, that looks better. Good. Ah does that sound better? It does, does it?
0:31:28	Robyn	Yeah.
0:31:29	T	Certainly looks a whole lot better to me.
0:31:32	Kevin	Miss, now what do we do?
<i>Teacher now moves to assist other students on the same table.</i>		
0:31:36	T	Finished those? Okay. Eighty kilograms to eighty thousand. Do your answers look, sound right, do you think?
0:31:42	Kevin	Yes.
0:31:43	T	Oh, very confident. Okay. I like confidence. All right. I'll put the questions up. I want you to look at some of the worded questions.
0:31:52	Kevin	Alright.

EXAMPLE 3: A4-L12 (0:31:18 to 0:33:27) – Explicit Teacher Demonstration

0:31:18	Dwayne	I really don't get it.
<i>Teacher goes to students' desk and kneels down.</i>		
0:31:19	Tom	One twenty we got for the six-sided hexagon.
0:31:23	T	Let's have a look. Ah, it all seemed so simple before.
<i>Teacher looks at students' triangles.</i>		
0:31:26	Tom	It did.
0:31:27	T	Alright. So there's our triangle.
0:31:27	Dwayne	Yep.
0:31:28	T	Right. Tear, tear, tear. We get the pointy ends in together, and that gave us a hundred and eighty. Straight line.

<i>Teacher actually makes his own set of triangles to demonstrate the activity.</i>		
0:31:45	Dwayne	Oh.
0:31:46	T	One hundred and eighty.
0:31:46	Dwayne	Yeah, yeah, yeah, yeah, yeah.
0:31:47	T	O.K? Now we take the four-sided shape. Have you wrecked that yet?
0:31:49	Dwayne	No.
0:31:53	T	Alright. Four-sided shape.
<i>Teacher uses the triangle to demonstrate the measurement of angles in a square.</i>		
0:32:07	T	[to Scott] Scott, how we going there?
0:32:09	Scott	I have a shape.
0:32:11	T	Four-sided shape.
0:32:15	T	[to Tom and Dwayne] What do you reckon that is? Angle?
0:32:17	Dwayne	Three hundred and sixty.
0:32:18	T	Excellent. Five-sided shape.
0:32:20	Tom	How much was that? Hundred and sixty?
0:32:21	T	Three sixty.
0:32:22	Tom	Three sixty.
0:32:26	Darr	I'll just go with this one.
0:32:27	T	What is that? Five-sided shape.
0:32:29	Tom	Hey look at this ... I did mine one four five?
0:32:30	Darr	[...]
0:32:32	T	Excellent.
0:32:32	Darr	So you go, rip off the side...
0:32:36	T	O.K.
0:32:39	Tom	You're putting one eighty on all the time.
0:32:41	T	Oh, Tom.
0:32:44	T	[to Dwayne] What's happening?
0:32:49	T	Oh.
0:32:55	T	[to Dwayne] Yeah. Put it in there. Alright. So keep pointing them into there.
<i>Teacher helps student to position his triangles in a shape.</i>		
0:33:00	Darr	Oh. O.K.
0:33:02	Tom	Next one will be...four fifty or something. Wait a minute, five fifty.
0:33:16	T	[to Tom] So, what are you saying. Put on another one eighty?
0:33:20	Tom	Yep.
0:33:21	T	O.Alright- So what's three sixty plus one eighty?
0:33:22	Tom	Um...five fifty, five forty.
0:33:27	T	Ah ha. It is.

EXAMPLE 4: US3-L5 (00:46:15:05 to 00:51:28:27) – Organisation, Encouragement and Scaffolding

<i>Monitoring progress and encouraging students to work together</i>		
00:45:42:09	T	You guys are good? Don't leave Kevin out, you know.
00:45:52:00	S	Okay
00:45:54:08	T	I think he's good to go.

00:46:15:05	S	How do you tell on this if it's positive or negative?
<i>Encouraging students to get help from each other</i>		
00:46:18:16	T	Well, you can always- oh, ask Roseanna.
00:46:20:15	Roseanna	( No. ) ( ) ( I don't know ).
<i>Providing scaffolding and hints</i>		
00:46:22:27	T	Okay. You can always do FOIL to check back. What's it supposed to end up being?
00:46:30:12	S	//Uhh, negative forty five.
00:46:30:12	Roseanna	//Negative forty five.
00:46:33:12	T	Okay.
00:46:34:00	S	Okay.
00:46:38:11	Roseanna	It would have to be one ( ).
00:46:41:05	T	That's right.
00:46:56:12	T	I know. I know. //( Just reminding ).
<i>Monitoring to keep students on task</i>		
00:47:02:04	T	W- are you missing a page?
00:47:05:28	T	Oh no. You just flipped it over.
00:47:19:04	S	I couldn't find it. I was here, and then I went here, and then I went here ... //and then I went here ( ).
00:47:21:24	S	//I did that too, except I ( ).
00:47:28:16	T	She's having a Friday.
00:47:30:22	S	Oh man, I love Fridays. Today is Friday, yes.
<i>Monitoring progress</i>		
00:47:36:22	T	You guys are good with this? Easy? Are you doing it factor by grouping?
00:47:40:06	S	Yes.
00:47:41:06	T	Okay.
00:47:43:08	T	I'm just looking. //I'm just looking.
<i>Providing scaffolding and hints</i>		
00:47:46:18	S	//( )- is this right for B? Cuz //two x plus one-
00:47:51:23	T	//I don't know where you are.
00:47:55:21	S	This one. It would be two x plus one, so then x would equal negative five cuz it's two x?
00:48:00:06	T	( And on ) this one, divided by two, yeah. Some of these, when you get into factor by grouping, where it's a three and- it's more than just x, you are gonna have like two little steps to solve, where you subtract one and then divide by two.
00:48:15:20	T	But, ( ). Don't do a lot of them just in your head, without- you can go through the little steps to make sure that you're right. Yeah. Yeah, your late work.
<i>Managing work for students who have missed assignments</i>		
00:48:27:22	T	Um, you were out four days?
00:48:32:29	S	Three.
00:48:34:05	T	Three. Okay. So, //you get three days to get it in, so-
00:48:36:14	S	//I missed the group test.

00:48:39:14	S	So, I've got one of them ( right here ).
00:48:41:08	T	So you think you can get the rest in on Monday?
00:48:43:26	S	( ).
00:48:44:20	T	Um ... your group test and your in- did you miss the group test?
00:48:52:22	S	( Yeah ).
00:48:53:08	T	Okay. That's on next trimester's report card anyway. Alright, let me get caught up for this time cuz I need it for this report card. Alright, let me go get it.
00:49:30:14	T	Um, n- cuz it's a modified day, so I have meetings like, right away ... so I can't. Can I borrow your eraser? Thanks. Which one do y- hold on just a second. Yeah?
00:49:42:12	S	About our group tests, like, we keep- I like, keep saying I think I wanna do it today, but I- I always forget by the end of the day.
00:49:52:21	S	So, can I still take it or is it too late?
00:49:55:10	T	It's too late. F- because he was absent, okay? So he's talking about the one you just took. You guys are talking about ones from last trimester.
00:50:07:18	T	And is this the quiz, the group quiz that you were gonna continue to make up?
00:50:11:05	S	( Well, we did half of it ). So do we at least get half credit?
00:50:15:09	T	I'll have to look and see. And you never made that up. You can't- and that was like, in January? That's a little- yeah, that'd be a little late.
00:50:28:05	T	Okay. I also- you probably did this and then I- you weren't here to show me. I need uh, eighty three to ninety four.
00:50:40:13	T	Okay, so you ...
00:50:46:22	S	Three doesn't go into thirty seven, correct?
00:51:00:17	T	So you only have ... two to m- ... you only have one homework assignment to make up, one 'o seven to one twenty. You can do that by Monday?
00:51:11:07	S	( Yeah. )
00:51:11:16	T	Okay. And then Monday after school, group test. And you are the only guy that missed it. And period four is not there yet. So, you have the option of waiting.
00:51:28:08	S	( ) by myself.
00:51:28:27	T	Being a group of one?