Coding scheme for “The impact of negotiation for meaning on reading comprehension among Singapore primary students” (SOG) project

Classroom Observation and Coding

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February, 2010

This coding scheme is a simplified version of a coding scheme used in prior studies (Peer Work, Peer Talk and Language Acquisition in Singapore; Intervening in Peerwork, P1-P6; Expanding the Teaching Repertoire: Rethinking Groupwork and Language Learning). It was developed for use in the project “The impact of negotiation for meaning on reading comprehension among Singapore primary students” funded by the Office of Educational Research at the National Institute of Education, Singapore.

SCHEME DEVELOPMENT

The focus of this project is on a reading comprehension intervention which included negotiation for meaning (e.g. Pica, 1994). The scheme allows for basic coding of lessons to facilitate classroom descriptions across the different types of research groups. The more extensive PWPT coding scheme (Silver & Kogut, n.d.) was not needed for this purpose. Only categories relevant to the current study are included. Specific details about the study are not included in this manual. The manual is limited to a description of the coding categories and procedures for the classroom observations.¹

The coding scheme includes an MS Excel sheet with categories for general information about the school, class, teacher, etc.; framing of the lesson such as class size, time and physical arrangement of the lesson; and other categories related to the specific interests of the research project (resistance to learning, participation patterns, activities). Descriptors for each category are described below.

Also included is a ‘data summary sheet’ which calculates PP and lesson time. It is not used for any other purpose in this project.

The more detailed classroom coding scheme, with complete explanations, can be found in Kogut & Silver (n.d.).

¹ For information about the SOG study, contact Rita Silver: rita.silver@nie.edu.sg
DESCRIPTORS

Each category on the coding sheet is described below.

1. General information about the lesson can be found in the “Intro” sheet which contains the following:

   **School Name:** Name of the school in which the study is conducted. For confidentiality purposes, a pseudonym of the school is used.

   **Class Name:** Name of the class from which students are drawn for participation in the study. These are the names given to classes by the school (i.e. 2A, 2B, etc.).

   **Group:** Participation group for the project i.e. experimental (Exp), traditional reading-comprehension (TRC), and business-as-usual (BAU) groups. Usually students from more than one class can be part of a ‘group’. In these cases, names of all classes are indicated in the general information sheet. Note that the types of research groups differs in the pilot, mini, and the main study for this project.

   **Level:** Grade level of students participating in the study.

   **Subject:** This is usually English for the experimental and traditional reading-comprehension groups, however it can be any subject for business as usual groups.
**Study Type:** The overall study consists of a few stages, i.e. pilot, mini, and main (or full) study. Provide this information here.

**Date of Lesson:** Day, month and year of the lesson observed.

**Teacher Pseudonym:** For confidentiality purposes, pseudonyms are used for all participating teachers. (No students are named.)

**Gender:** Gender of the teacher is indicated.

**Main coder:** Some of the lessons are coded by two or more researchers for reliability checks; thus, the name of the coder has to be indicated on the information sheet.

**Note:** Drop down menus for school name, type of research group (Exp, TRC, BAU), Study Type (pilot, mini, main (full), teacher pseudonym, and teacher gender are provided.

2. Information about Lesson Framing, Participation Patterns (PPs) and Activities can be found in all other sheets. A separate sheet is used for each PP and all information relevant to that PP is given on that sheet.
**FRAMING**

**Time:** Beginning and ending time of the PP is rounded up or down to the nearest multiple of minutes (based on international convention: 13 hours 25 min). Hour is keyed in the hour cell and the minutes in the minute cell.

<table>
<thead>
<tr>
<th></th>
<th>hour</th>
<th>min</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time begin</td>
<td>1</td>
<td>25</td>
</tr>
</tbody>
</table>

**Physical Arrangement:** Coded in the beginning of the lesson and during peer work (if different from the beginning of the lesson). The following options are chosen from the explanation cell.

1 = Single Column  
2 = Double Columns  
3 = Cluster  
4 = Floor Group Seating  
5 = Laboratory Benches  
6 = Table Rows  
7 = Other (Please specify)

**Class Size:** Class size is indicated (i.e. number of students).

**Topic(s):** Topics/subtopics or skills that are taught during the lesson are indicated.

**Lesson Number:** Lesson number (to be chosen from the drop down menu).

**RESISTANCE TO LEARNING**

Overt signs of resistance to learning such as sleeping, walking around the room, leaving the class, etc. This category is left within the lesson framing coding field as it might be useful for a basic indicator of student engagement/involvement in the different types of groups.

**PARTICIPATION PATTERNS**

Each participation pattern in a lesson should be coded on a separate worksheet. Participation pattern is defined as the interactional pattern in the class (e.g. teacher fronted, student fronted, etc.). Select one participation pattern and code all of the activities that occur within that participation pattern.

The options for the participation patterns\(^2\) are

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\(^2\) The participation patterns and their definitions are based on those used for the LabSchool (\[www.labschool.pdx.edu\]).
Whole class teacher fronted: the students are working as a whole class and the teacher is leading the process.

Whole class student fronted: the students are working as a whole class and one or more students are leading the process. The student or students have ‘the floor’ in the sense that the whole class is supposed to be paying attention to the student(s). Take into account amount and type of teacher interventions. If teacher intervenes and interrupts frequently, this might be coded as teacher fronted.

Individual public: the students are working individually on a public space in the class (e.g. doing assignments near the whiteboard, putting up posters for everyone to view). This might also include working at their desks when teacher and student behavior indicates that public sharing of the work is accepted.

Individual private: the students are working individually at their seats.

Large group work: the students are working in groups of 6 or more people. Usually this follows the teacher saying the students are to work in groups or that they ‘can’; visually the children are observed to be sitting together as groups.

Small group work: the students are working in groups of less than 6 people. Usually this follows the teacher saying the students are to work in groups or that they ‘can’; visually the children are observed to be sitting together as groups.

Pair work: students are working in pairs. Usually this follows the teacher saying the students are to work in pairs or that they ‘can’; visually the children are observed to be sitting together as pairs.

Free movement: the students are free to move around the class while doing the tasks or may need to move around the class (e.g. individuals working in learning centers). Note that if groups are moving from one station to another (e.g. ‘play groups’ or learning centers, this should be coded as pair/small group/large group).

Other: If the grouping in class does not fall into any of the suggested participation patterns, use this option and provide a description.

Notes:

Group and pair work assume that the students are working together to complete the task/activity. These PPs do not cover simply looking over at another’s work (see ‘individual public’) or sitting together.

When groupings are not equivalent, determine pair, small or large group based on the dominant grouping pattern.

Activities

Determinination of the activity is based on what the teacher and students are doing (i.e. what is observable). Comments and clarifications to any activity (e.g. students are giving instructions) can be...
written in the adjacent column. There may be several activities carried out during one participation pattern. Code each one in order so that the sequence is indicated by the Activity 1, Activity 2, etc. columns on the coding sheet.

Activities are listed on the coding sheet with some of the most frequently used activities first. They are listed alphabetically in this manual.

The options for activity types are

**Admin Matters**: This is ‘School Administrative Matters’. It is only for administrative matters to do with the school as whole, not just this class. Examples include discussion of fun fair, announcement about fieldtrips, selling things, etc.

**Classroom management**: Activities focused on managing or controlling the class, maintaining the teacher authority, teaching correct classroom behavior or aimed at improving class dynamics among students (e.g. teacher reprimanding the class, students moving seats and desks to prepare for a new participation pattern, teacher organizing students to give presentations).

**Instructions**: Teacher (or student) is giving or clarifying instructions. The main focus is on how to proceed/what to do in a specific activity. To count as an activity, instructions are usually the focus while other activities have stopped. Teacher instructions, comments that are interspersed with other, on-going activities would not constitute a separate activity).

**T correction/answer checking**: Activity in which the main focus is on the teacher correcting/checking student work. If the teacher is correcting/checking student work while the students are continuing to work, code for the activity the students are doing and make a note of the teacher's activity under ‘comments’. This includes feedback which is not about answers that are ‘right’ or ‘wrong’ (e.g., feedback on group presentations).

**T exposition**: The emphasis is on the teacher explaining. It is generally monologic but might include some modeling or limited questioning. The main function is for the teacher to explain and/or elaborate on information.

**T questioning**: This is distinct from ‘elicitation/discussion’ in that T questioning involves short students responses to teacher questions. In this case, the teacher questions are usually not open-ended and the discussion is not substantive.

**Elicitation and discussion**: Teacher or student elicits a class, group or pair discussion. Including substantive and open ended questions. Discussion is free flowing, students are in dialogue with other students, teacher might make connections between comments, ideas or redirect the flow of discussion. Someone (teacher or student) might record or note student contributions verbally or on whiteboard
**Reading Aloud/Recitation:** Students or teacher are reading aloud. This includes when 1 or more students are reading aloud from a passage while the other students listen. If the teacher is reading aloud and students are listening, make a note in a comment.

**Reading Silent:** Students are reading silently, either the same text or different texts.

**Writing:** Students are writing. Usually compositions at their desks but might involve other writing such as 'note taking'.

**Reporting:** Students report back on what they have done (usually a group or a representative of a group reporting to the class). Teachers may refer to this as a 'presentation' but there is usually little preparation to present—students simply report what was done or what answer they got.

**Assessment:** Engagement in any formal assessment (e.g. taking a test, a mock test, or a spelling/dictation). This is largely defined by the teacher’s definition of a task as an 'assessment'.

**Peer Editing/Correction:** Activity in which students are engaged in correcting their own or each others’ work at the direction of the teacher.

**Hands on/experiment:** Activity in which students engage in experiential learning with objects, manipulatives, scientific or technical equipment, or other apparatus. In this case, the use of objects, etc. is an integral part of the activity (i.e., it must be used), it is not simply a visualization or aid which can be ignored.

**Brainstorming:** Free flowing elicitation of ideas around a particular topic, usually with short answers and none or very little evaluation of responses. Ideas are usually recorded by teacher or group representative for use in subsequent activity (e.g. brainstorming ideas for a composition).

**Game:** Activity which intentionally has an enjoyment as well as learning; usually with some competitive aspect (scoring points); usually in teams. Usually designated as a 'game' by the teacher though watch for activities which are said to be games but really are not. In this case, additional notes may be needed for later discussion with other coders.

**Role play/Drama:** Dramatic or semi-dramatic activities in which students ‘read out’ from a text. or ‘act out’ a scenario. If the students are simply reading from a text, without any attempt to act it out or provide characterization, code for ‘reading aloud’. A reading can count as ‘role play’ if dramatization is done and/or expressiveness is highlighted (e.g. dramatic choral reading).

**Opinion/Debate:** This is an activity in which the students are supposed to state their opinions and either persuade other to agree or debate with others who have a different opinion. It is not simply ‘sharing’ their opinions – when each one states what their opinion is but there is not discussion or argument about the opinions. The latter would be coded as 'sharing/telling'. Opinion/Debate is intentionally set up so that students have different opinions and there is an element of persuasion or rationale argument.
**Decision-Making:** This is for activities that require the students to come to a decision together. They share the same information so there is no information-gap; the purpose is to come to an agreement.

**Information gap:** Activity in which all participants do not have the same information and thus, there is a ‘gap’ in what different participants know. It’s always pair or group work. (The sole exception is if the teacher leads an info-gap activity with the class – either the teacher or the students having only part of the necessary information. This might happen, for example, if the teacher is modeling how to do an information gap activity.)

**Sharing/Telling:** Describes group activities in which students are to share their ideas or tell each other their thoughts. The purpose is simply to hear/tell their thinking; there is no information gap. This might include students stating their opinions but unlike ‘Opinion/Debate’, the activity is not set up so that students do have different opinions.

**Other:** Any other activity that is not listed. If the students are engaged in multiple, different activities at the same time (e.g. learning centers), use ‘Other’ and then in the comment, list the different activities that are being done. Note, when working with several possible activities in ‘Other’, consider whether Knowledge Classification would change or not. If Knowledge Classification changes, list 2 (or more) ‘Other’ activities; if Knowledge Classification class remains the same throughout, list only one ‘Other’ activity.

**Notes:**

There is a drop down menu for lesson type relevant to SOG: pre-test, L1, L2-L6, post-test, delayed post-test (DPT).

**REFERENCES**
