

**DIALOGIC SPACE IN THREE LOWER
PRIMARY CLASSROOMS: A MULTIMODAL
APPROACH**

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ABSTRACT

This thesis uses a multimodal lens to explore how three lower primary teachers manage dialogic space in their respective classrooms during the Shared Book Approach (SBA) lessons, where they read big books to their students while holding whole class discussions.

Against the backdrop of recent policies and initiatives by Ministry of Education, Singapore and the aims of the 2010 English Language Syllabus, interactions between teacher and students have received much attention. The body of work on classroom discourse in Singapore mostly focuses on speech, to the exclusion of other semiotic resources that make meaning in the classroom. This study finds that during SBA lessons in the lower primary, teachers use a variety of other semiotic resources such as gestures, space, written words and images. Through a detailed consideration of these semiotic resources, the aims of this research are to investigate how three teachers manage dialogic space during whole class discussions in SBA lessons, the issues arising from their practice and insights specifically given by the use of the Systemic Functional - Multimodal Discourse Analysis or SF-MDA (O'Halloran, 2007, 2011) adopted in this study.

The employment of the SF-MDA has proven to be productive in establishing the way the teachers combine the different semiotic resources of speech and gesture to expand dialogic space by asking open-ended questions while gesturing with the supine hand position; and contracting dialogic space by, for example, asking seemingly open-ended questions

while pointing to the answers in the big books. This could be seen as a scaffolding technique in reducing the options available to students. Teachers are found to be less reliant on the prone hand gesture in contracting dialogic space.

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DEDICATION

My humble and most profound gratitude to the one who has made this journey possible for me.

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Contents

CHAPTER 1: INTRODUCTION	8
1.1 Rationale for research study	8
1.2 Educational landscape in Singapore	9
1.2.1 'Teach Less, Learn More'	11
1.2.2 Primary Education Review and Implementation Committee	15
1.2.3 Recent MOE policies.....	16
1.2.4 English in newly independent Singapore	17
1.2.5 English in present day	18
1.2.6 Characterising the students in Singapore	19
1.2.7 The English syllabus	20
1.3 Research questions.....	27
1.4 Conclusion	29
CHAPTER 2 : SYSTEMIC FUNCTIONAL LINGUISTICS & SF-MDA	31
2.1 Introduction.....	31
2.2 Key tenets of SFL	31
2.2.1 The functional in SFL	32
2.2.2 Language functions to make meaning	33
2.2.3 Context in SFL	34
2.2.4 Using language is a semiotic process	39
2.2.5 SFL and educational research	41
2.2.6 SFL and Multimodality.....	42
2.2.7 Multimodality and literacy.....	51
2.3 Conclusion	55

CHAPTER 3 : LITERATURE REVIEW	56
3.1 Introduction	56
3.2 Insights from Vygotsky and Bernstein	56
3.2.1 Vygotsky.....	56
3.2.2 Bernstein.....	58
3.3 Classroom discourse	60
3.4 Dialogism and Classroom Discourse	63
3.5 Multimodality and classroom discourse	67
3.5.1 Gestures in SFL tradition.....	70
3.5.2 Space as a semiotic resource in the classroom	73
3.5.3 Multimodal research in the local context	74
3.6 Conclusion	76
CHAPTER 4 : METHODOLOGY	77
4.1 Introduction	77
4.2 Ontological, epistemological and methodological considerations	77
4.3 Research methodology	79
4.3.1 Methodological approach	79
4.3.2 Locating the researcher in the research	84
4.3.3 Source of data.....	85
4.3.4 Research contexts and participants	89
4.3.5 Data collection procedures.....	90
4.3.6 Selection of data	90
4.4 Data analysis	91

4.4.1	Curriculum genres and macrogenres	92
4.4.2	Analysis of semiotic resources	99
4.5	Conclusion.....	126
CHAPTER 5 : CONTEXTUALISATION OF LESSONS.....		128
5.1	Introduction.....	128
5.2	Curriculum Macrogenre	129
5.3	Lesson Genres and Microgenres	135
5.3.1	Field	139
5.3.2	Tenor.....	141
5.3.3	Mode	144
5.4	Lesson Genres and Microgenres in the three lessons.....	145
5.4.1	Lesson Microgenres: Ms Fong’s Lesson.....	148
5.4.2	Lesson Microgenres: Ms Gan	154
5.4.3	Lesson Microgenres: Ms Naima.....	160
5.5	Conclusion	169
CHAPTER 6 : ANALYSIS OF SPEECH.....		171
6.1	Introduction.....	171
6.2	Enactment of social roles	171
6.2.1	Exploring social roles in Ms Fong’s lesson.....	172
6.2.2	Exploring social roles in Ms Gan’s lesson	181
6.2.3	Exploring social roles in Ms Naima’s lesson.....	188
6.3	Engaging students during instructional discourse	195
6.3.1	Presenting information as an undisputed truth	196

6.3.2	Contracting dialogic space	199
6.3.3	Expanding dialogic space.....	205
6.5	Conclusion	212
CHAPTER 7 : ANALYSIS OF SPEECH AND GESTURES		214
7.1	Introduction.....	214
7.2	Appraisal analysis: Expansion of dialogic space	215
7.3	Appraisal analysis: Contraction of dialogic space	227
7.4	Bottom-up approach: Gestures used by teachers.....	236
7.5	Multimodal speech function analysis	249
7.5.1	Opening speech functions used by teachers and students	250
7.5.2	Sustaining discussions: Continuing speech functions used by the three teachers and their students	253
7.5.3	Reacting moves made by teachers and students.....	263
7.5.4	Dynamic approach to multimodal speech analysis.....	279
7.6	Conclusion	294
CHAPTER 8 : DISCUSSION		295
8.1	Introduction.....	295
8.2	Framing student engagement within the PETAL framework 296	
8.2.1	Pedagogy	297
8.2.2	Experience of learning and Assessment	303
8.2.3	Tone of environment	317
8.2.4	Learning content	321
8.3	Contributions, limitations and further research.....	323

8.3.1	SF-MDA approach to classroom discourse	323
8.3.2	Possible contributions to teacher training.....	329
8.3.3	Contributions to theory	331
8.3.4	Contributions to research in the local context.....	333
8.4	Limitation of study.....	335
8.5	Further research	336
8.6	Final comments	337
	References.....	340
	Appendix 1: Lesson Genres in Ms Fong’s lesson.....	361
	Appendix 2: Lesson Genre in Ms Gan’s lesson.....	362
	Appendix 3: Lesson Genre in Ms Naima’s lesson.....	363
	Appendix 4: Sample of Lesson Microgenre analysis of Ms Fong’s lesson.....	364
	Appendix 5: Sample of transcript and transcript conventions ..	367
	Appendix 6: Screen-shot of analysis window of the Multimodal Analysis software.....	369
	Appendix 7: Sample of Excel Sheet imported from Multimodal Analysis Video for the analysis of gestures of Ms Gan’s lesson.	370
	Appendix 8: Ethics documents	371

List of Tables

Table 4.1: Description of videoed English lessons in terms of phases in STELLAR

Table 4.2: The lesson microgenre 'Teacher Disciplinary Interruption' contextualised to register variables (O'Halloran, 2004, p.196).

Table 4.3 Lesson Microgenres (O'Halloran, 2004, p.194)

Table 4.4: Speech roles and their functions (adapted from Halliday and Matthiessen, 2004, p. 107)

Table 4.5. Congruent and metaphorical realisations of the four basic speech functions (adapted from Eggins and Slade, 2006)

Table 4.6: Initiating and responding speech functions (adapted from Halliday 1994, p. 94 and Eggins and Slade, 2006, p. 184)

Table 4.7: Options for [contract]

Table 4.8: [Expand] options

Table 4.9: Summary of analyses

Table 5.1: The three teachers and their corresponding Big Books

Table 5.2: Stages in Curriculum Macrogenre

Table 5.3.1: Details of the three selected lessons based on a similar stage of curriculum macrogenre

Table 5.4: The Lesson Microgenres (adapted from O'Halloran, 2004)

Table 6.1 Summary of mood analysis for Ms Fong's lesson (adapted from Eggins & Slade, 2006, p.110)

Table 6.2 Summary of mood analysis for Ms Gan's lesson (adapted from Eggins & Slade, 2006, p.110)

Table 6.3 Summary of mood analysis for Ms Naima's lesson (adapted from Eggins & Slade, 2006, p.110)

Table 7.1: Frequency of supine hand gestures displayed by teachers

Table 7.2: Purposes of the supine hand position

Table 7.3: Frequency of prone hand gestures displayed by teachers

Table 7.4: Purposes of the prone hand position

Table 7.5: Ms Gan's use of the prone hand position within 12 seconds

Table 7.6: Ms Fong's use of the prone hand position

Table 7.7: Ms Naima's use of the prone hand position

Table 7.8: Gestures used by the three teachers

Table 7.9: Instances when [heteroglossic: expand: entertain] changes to [heteroglossic: contract: proclaim: concur] in consideration of the pointing gesture

List of Figures

Figure 1.1: Phases of STELLAR

Figure 2.1: The tri-stratal semiotic system of language (Martin, 2014, p.7)

Figure 2.2. The realisation relationship between language and social context (reproduced from Martin, 1997, p.61)

Figure 2.3: Language and context organised by metafunction (adapted from Eggins and Martin, 1997, p. 242)

Figure 2.4. Metaredundancy of genre and register (Martin, 2002a, p. 57)

Figure 4.1: Four basic designs for case studies [reproduced from Yin (2009, p. 46)]

Figure 4.2: Linear progression of Curriculum Genres (reproduced from Christie, 2002, p. 100)

Figure 4.3: Orbital sequence of Curriculum Genres (adapted from Christie, 2002, p. 132)

Figure 4.4. Simplified MOOD system (reproduced from Halliday, 2004, p.23)

Figure 4.5: Partial overview of the SPEECH FUNCTION system network from Eggins and Slade (2006, p. 193) (Asterisk [*] indicate further options are available)

Figure 4.6: The engagement system (Martin and White, 2005, p. 134)

Figure 4.7: ENGAGEMENT system of network for body language (Hood, 2011, p. 48)

Figure 5.1: Hall's distance sets (reproduced from Matthiessen, 2009, p.27)

Figure 5.2: Lesson Genres across the three lessons

Figure 5.3: Typical teacher-student interaction space during Big Book reading

Figure 5.4: Lesson Microgenres in Ms Fong's lesson

Figure 5.5: Lesson Microgenres during Ms Gan's lesson

Figure 5.6: Teacher-student interaction space during Follow-up Lesson

Figure 5.7: Teacher-student interactions within the higher spectrum of Public space during Ms Naima's Preliminary Lesson Genre

Figure 5.8: Lesson Microgenres during Ms Naima's lesson

Figure 5.9: AV's position during the Main Lesson Genre

Figure 5.10: Teacher-student interactions within the Social-Consultative space during Ms Naima's Follow-up Lesson Genre: Individual Seat Work

Figure 7.1: Engagement system of network for body language (Hood, 2011, p. 48)

Figure 7.2a: Rest position of Ms Gan with right hand on top of big book and the other hanging at the side

Figure 7.2b: Rest position of Ms Gan with right hand hanging in the air and the other holding the side of the book

Figure 7.3: Rest position of Ms Naima with one hand across lap

Figure 7.4: Rest position of Ms Fong with both hands folded across the lap

Figure 7.5: Supine hand position of the three teachers

Figure 7.6: Prone hand position of Ms Gan in the 12 second-block

List of Extracts

Extract 5.1: IRF Sequence in Ms Fong's lesson

Extract 5.2: Ms Fong's use of many semiotic resources during the Main Lesson Genre

Extract 5.3: Whole-class Discussion Lesson Microgenre – Ms Gan

Extract 5.4: IRF Sequence in Ms Naima's Main Lesson Genre

Extract 5.5: Ms Naima's instructions to students on the completion of the task

Extract 6.1: Typical teacher-student interactions during Ms Fong's lesson

Extract 6.2: Typical teacher-student interactions during Ms Gan's lesson

Extract 6.3: Ms Gan's mood selections and teacher authority to regulate a student's behavior

Extract 6.4: Typical student-teacher interaction between Ms Naima and her students

Extract 6.5: An example of Ms Naima's use of mood metaphor

Extract 6.6: Monoglossic utterances during Ms Fong's lesson

Extract 6.7: Monoglossic utterance during Ms Gan's lesson

Extract 6.8: Exception in Ms Gan's positioning of students

Extract 6.9: Contracting dialogic space: An example from Ms Gan's lesson

Extract 6.10: Interaction patterns: An example from Ms Fong's lesson

Extract 6.11: Expansion of dialogic space – Ms Naima

Extract 6.12: Expansion of dialogic space – Ms Fong

Extract 6.13: Expansion of dialogic space – Ms Gan

Extract 7.1: Fusion of interpersonal and textual metafunctions – Ms Gan

Extract 7.2: Ms Naima's use of other semiotic resources to acknowledge students' answers

Extract 7.3: Transcript of Ms Fong's use of the prone hand position

Extract 7.4: Transcript of Ms Gan's use of the rhythmic gesture

Extract 7.5: Transcript of Ms Fong's use of the rhythmic movement using her head

Extract 7.6: Ms Naima's use of rhythmic head movements for emphasis

Extract 7.7: Transcript of one instance of Ms Fong's use of the clapping gesture

Extract 7.8: Opening move by one of Ms Fong's students

Extract 7.9: Opening move by one of Ms Gan's students

Extract 7.10: Typical interaction in Ms Naima's class in selecting the option [continue: nominate]

Extract 7.11: Ms Gan's use of a variation of 'individual nomination' in selecting [continue: monitor]

Extract 7.12: Ms Fong's selection of [sustain: continue: prolong: elaborate] to restate questions

Extract 7.13: Ms Fong's selection of [sustain: continue: prolong: elaborate]

Extract 7.14: An instance where Ms Fong's student selected sustain: [continue: prolong: elaborate]

Extract 7.15: Ms Gan's use of sustain: [continue: prolong: extend]

Extract 7.16: Ms Naima's use of sustain: [continue: prolong: extend]

Extract 7.17: Ms Gan selecting the sustain: [continue: append: elaborate]

Extract 7.18: Ms Fong's student opting to introduce a new proposition opting for [rejoinder: support: track: clarify]

Extract 7.19: Ms Fong's use of [respond: support: acknowledge]

Extract 7.20: Ms Naima withholding the evaluation of a student's answer to her predicting question

Extract 7.21: Ms Fong's use of the [respond: support: develop: enhance] option

Extract 7.22: Ms Naima's selection of the option [respond: support: develop]

Extract 7.23: Ms Fong's use of the [respond: confront: reply: disagree] option

- Extract 7.24: Ms Fong's use of rejoinder: support: track: check
- Extract 7.25: Ms Naima's use of rejoinder: support: track: confirm
- Extract 7.26: Ms Gan selecting the option rejoinder: support: track: clarify
- Extract 7.27: Ms Fong selecting the rejoinder: support: track : probe
- Extract 7.28: Ms Fong selecting the option rejoinder: confront: challenge: counter
- Extract 7.29: Ms Fong's selection of the [rejoinder: confront: challenge: rebound]
- Extract 7.30: First variation of the modified IRF
- Extract 7.31: Second variation of the modified IRF
- Extract 7.32: Extended discussion of nightmares during Ms Naima's lesson
- Extract 7.33: An example of how Ms Fong extended her interactions with students
- Extract 7.34: Typical exchange structure during Ms Gan's lesson

CHAPTER 1: INTRODUCTION

1.1 Rationale for research study

This research study investigates multimodal teacher-student interactions in three lower primary lessons (seven and eight-year-olds) taught by three different teachers in Singapore. Specifically, it examines how teachers engage learners through a variety of modes (i.e. speech, gesture, body angle, written language and images) in managing dialogic space while mediating between the big picture books and students in meaning construction. Managing dialogic space refers to the dialogically expansive or contractive utterances produced or gestures made by teachers. In expanding dialogic space, teachers encourage the plurality of different perspectives or voices during whole class discussions (Martin and White, 2005). Contracting dialogic space involves “challeng(ing), fend(ing) off and restrict(ing)” (Martin and White, 2005, p.102) these multiple voices, either to make way for their own voices or the voices of selected students.

The view that “teachers are at the heart of delivering a quality education” (MOE, 2011a, para. 2) is central to this thesis. Many studies have emphasised the critical role of teachers in classroom learning (e.g. McKinsey & Company, 2007; Rivkin, Hanushek, & Kain, 2005; Stronge, Ward, & Grant, 2011). Teachers are described as “authoritative pedagogic agent(s)” and that “teacher competence is by far the most important factor in learner attainment” (Muller, 2007, p. 26). Teacher competence receives much attention from the Singapore Ministry of Education (hereafter, MOE). At the MOE Work Plan Seminar 2014, the Minister for Education, Mr Heng Swee Kiat outlined key professional development plans for teachers to support them through a structured three-prong approach at the individual,

school and cluster level¹ (MOE, 2014, para 43). More recently, MOE in collaboration with the National Institute of Education, set up the Singapore Teaching Practice portal for teachers to share teaching strategies across 24 areas (Chan, 2017).

The motivation for this research comes from a number of factors. Firstly, the introduction of various educational policies by the MOE targeting the quality of teaching and learning in classrooms provide fertile ground for investigating teacher-student interactions. Secondly, the field of multimodality has been gaining much respectability within the academic community evidenced by the numerous scholarly articles and books published in recent years (see e.g. Kress, 2010; Lancaster, 2012; Lim, O'Halloran, & Podlasov, 2012; Wang, 2013). Although it has been described as “a relatively new approach to research” (Jewitt, 2009c, p. 13) and an “emergent field” (O'Halloran & Smith, 2011, p. 1), multimodality has proven to be a useful lens in analysing classroom data. Thirdly, my experience as a primary school teacher and later on, a Research Associate involved in educational research of primary classrooms set the stage for me to embark on my own research in the same setting. The next sections will expand on each of these factors.

1.2 Educational landscape in Singapore

This section will outline the educational landscape in Singapore and the educational reforms introduced by the government since the late 1990s in a move to better reflect the social and economic development of the city-state. The policies and initiatives discussed here are only those that bear relevance to the current research study.

¹ Schools in Singapore are grouped in clusters to ease the sharing of teaching methodologies between teachers and facilities.

Singapore, a small city-state with limited natural resources, has its people as its greatest asset. Because of this, the growth of the country is largely dependent on the knowledge and skills of the population. Education plays an important role in ensuring the economic well-being of the country, with schools “preparing students for employment” (MOE, 2007a) and education policies are closely tied to the economic directions of the country.

The Singapore education system is centralised and controlled by the government under the purview of the MOE. In the early years when Singapore first became a nation, there was an urgent need to level up the education of its citizens. To serve this purpose, many schools were built rapidly and teachers were recruited in the masses. Efficiency was the key to attaining such a goal and thus, this was the foundation from which the education system was founded (MOE, 2007b). Due to the need to quickly level up the education of the people, the quality of the teachers hired and the training received by them were not necessarily of high priority. It could therefore be said that quality was inevitably sacrificed to ensure basic education for all. However, this is no longer applicable in the new, globalised era of today where critical thinking and problem-solving skills are highly sought after in the job markets - skills which were in the blind spot of an education system built on efficiency.

With the government’s decision to move from an industrialised economy to a “globally competitive knowledge economy” (Ministry of Trade and Industry Singapore, 1998, para. 28), educational reforms became necessary. The vision of the MOE was reviewed to take into account this shift. The new vision ‘Thinking Schools, Learning Nation’, which was first announced by the then Prime Minister in 1997, marked the beginning of a wave of related educational policies rolled out in the past

two decades (MOE, 1997). 'Thinking schools, Learning Nation' aims to prepare students for the challenges of the 21st century by developing their creative thinking and learning skills and imbuing in them a passion for lifelong learning in order to create a resilient and competitive nation.

1.2.1 'Teach Less, Learn More'

One of the most significant of these educational policies is 'Teach Less, Learn More' (TLLM) introduced in schools in 2006, "shifting the focus from quantity to quality in education" (MOE, 2005b, para 1). At the core of this policy is the emphasis on "richer interaction between teacher and student" and on "engaging minds" (MOE, 2005c, para 12).

Because of the "bottom-up initiative and top-down support" (MOE, 2005a, para 5) approach taken by MOE in implementing TLLM, several initiatives were introduced in its support. These initiatives continued the emphasis on quality interaction between teachers and students.

Firstly, in the spirit of 'Teach Less', the content in the curriculum for all subjects except for subjects like Physical Education, Music and Art was reduced by 10 to 20% in a bid to allow teachers more time to reflect and design lessons that are better able to meet their students' needs (MOE, 2005a). In order for teachers to do this, 'white space' was introduced in schools, where teachers meet or an hour each week during curriculum time to reflect and share best practices. The aim of these initiatives is to "improve the quality of interaction between our learners and teachers in the classroom and beyond, to bring about greater engagement in learning" (MOE, 2005a, para 7) and to "better engage... students in their own learning through more effective pedagogies" (MOE, 2005c, para 14).

Secondly, schools are encouraged to develop their own curriculum tailored to meet the specific needs of their students. Termed School-based Curriculum Innovations (SCI), school leaders and teachers are

empowered to tailor the curriculum according to needs of their students. In a context where education is centralized and where teachers are used to top-down directions from the MOE, this poses challenges to teachers and school leaders. In a clear statement of MOE's commitment to TLLM, MOE pledged to give greater support to schools by providing selected schools a TLLM Ignite package comprising of a range of support structures with the aim of “engag(ing) students and cater(ing) to their learning needs better” (MOE, 2008, para 2). Amongst these, is the provision of “curriculum design, pedagogy and assessment know-how in the school's specific area of SCI from an MOE HQ curriculum partner, local and overseas consultants and TLLM Mentors” (MOE, 2008, para 3) to increase teacher competency.

Another form of support for teachers in carrying out TLLM found in the TLLM Ignite package is the document ‘PETALS™: The Teacher's Toolbox’ developed by MOE and schools that had been selected to trial SCI (MOE, 2008). Five dimensions of engaged learning are described in the framework. These dimensions are Pedagogy, Experience of learning, Tone of environment, Assessment and Learning (PETAL). The PETALS framework provides resources for teachers in “understanding the dynamics between what a teacher does and what a student experiences, and to provide a common language and professional vocabulary across all schools” (MOE, 2008, Annex B) and to support teachers in engaged learning. Briefly, engaged learning occurs in classrooms where teachers:

- a. “select Pedagogy that considers students' readiness to learn and their learning styles;

- b. design an Experience of learning that stretches thinking, promotes inter-connectedness and develops independent learning;
- c. create a Tone of environment that is safe, stimulating and which engenders trust;
- d. Assessment practices that provide information on how well students have performed and provide timely feedback to improve learning; and
- e. select relevant and meaningful Learning content that makes learning authentic for the students” (MOE, 2008, Annex B, para 3).

This list was compiled based on “a synthesis of teachers’ experiences, students’ feedback, researchers’ data and sound education theories” (MOE, 2005b, p.8).

The importance of interaction between teachers and students is evident in these five dimensions (MOE, 2005b). For example, under Pedagogy, teachers are encouraged to use effective questioning techniques to promote higher order thinking in their students whilst for Experience of learning, creating links between students’ prior knowledge and new knowledge has been highlighted as one of the ways to engage students. As part of Tone of environment, providing a safe environment for students to share their ideas through the teacher’s words and actions; and the teacher’s use of scaffolding to guide students’ thinking would result in student cognitive engagement as they are more open to taking intellectual risks. The teacher’s scaffolding and questioning techniques are crucial in paving the way for student engagement (Alexander, 2004). Student engagement in this thesis is defined within this narrow context where teachers employ various semiotic resources (such as speech to question

and gestures to point to the words or images in the big book) for the purposes of increasing student participation and developing students' critical thinking skills through, for example, open-ended questions such as requesting them to justify their answers or providing examples (MOE, 2005) during the big book reading lessons.

Student engagement can be observed in three areas: behavioural, cognitive and emotional (MOE, 2007). Students who are engaged behaviourally show “enthusiastic involvement in learning activities” (MOE, 2007, p. 15) with high concentration and participation levels and willingly select challenging tasks. Cognitive engagement can be observed in students who are able to “display thinking skills appropriate to their age” (MOE, 2007, p.15). Emotional indicators of engagement can be seen in students who “display positive emotions such as enthusiasm, optimism, curiosity and persistence” (MOE, 2007, p. 15).

A third initiative introduced by MOE was the move to reduce class size for Primary 1 students from January 2005 and Primary 2 students from January 2006 from about 40 to a maximum of 30 made it possible for teachers to “engage their pupils actively, providing each pupil with more support and attention” (MOE, 2004, para 10) especially so in the lower primary as students are of varying abilities². This was also to allow a smoother transition for students from pre-school to primary school as classes are generally small in pre-school settings (MOE, 2013a).

² Officially, pupils in primary schools are streamed at Primary 5 based on their performance on the school examinations in the previous year (See <http://www.moe.gov.sg/education/primary/files/subject-based-banding.pdf> for more information).

The class size reduction presented a unique opportunity for an initiative called Strategies for Effective Engagement and Development, or SEED, in 2004 to be introduced (MOE, 2006) at the lower primary levels i.e., Primary 1 and 2. The smaller classes “allowed greater scope for teacher-pupil interaction and more personalised attention in the classroom” (MOE, 2007b, p. 10). SEED stresses the “importance of the foundational years in school and the need to engage pupils effectively and meaningfully” (MOE, 2007b, p. 7). It is a “ground-up initiative” (MOE, 2007b, p. 6) that gives teachers the liberty to choose the pedagogical approach in which to deliver the content prescribed by the syllabi (MOE, 2007b).

1.2.2 Primary Education Review and Implementation Committee

The initiatives that spurned from TLLM were numerous and varied, targeting different aspects of the education system. Recognising a need for a system-wide review, MOE set up a committee in 2008 called Primary Education Review and Implementation Committee, or PERI, to look into ways of raising the quality of primary school education in Singapore (MOE, 2009b). The recommendations forwarded by this committee were accepted by the government in March 2009³.

PERI’s recommendations fall into three broad categories: balancing knowledge with skills and values; investing in a quality teaching force and enhancing infrastructure.

Recommendations specific to the lower primary include the implementation of Programme for Active Learning (PAL) in the areas of Sports and Outdoor Education and Performing & Visual Arts; and introducing bite-sized forms of assessment to remove emphasis on

³ More information on PERI can be found here: <http://www.primaryeducation.sg/about-primary-education/about-peri/>

examinations with the possibility of removing semestral examinations⁴ in Primary 1 to facilitate the smooth transition from pre-school to primary school.

1.2.3 Recent MOE policies

In recent years, MOE's policies have been focussed on the pre-school sector. In 2013, MOE displayed its commitment to the preschool education sector by setting up the Early Childhood Development Agency (ECDA). ECDA is the regulatory body responsible for overseeing the development of children below the age of 7. Prior to this, preschool education was under the purview of the Ministry of Community Development, Youth and Sports and as such, had different areas of concern in addition to the quality of education in preschools. In the recent National Day Rally 2017, PM Lee described a multi-pronged approach to the preschool education sector where more spaces would be made available for the 0 to 4 year olds to address the issue of high but unmet demands of the newer neighbourhoods; improving the quality of the kindergarten curriculum in the MOE kindergartens with the aim of raising the standard for the whole industry; attracting qualified and high quality individuals to join the preschool teaching profession; and providing quality teacher training programme in a newly established centre called the National Institute of Early Childhood Development (NIEC).

This section has given a brief overview of the primary education landscape in Singapore and recent MOE policies. Because of the research focus on the subject English in lower primary classrooms, the next section provides an explanation of the place of English in Singapore generally and also specifically in the field of education.

⁴ Semestral examinations occur twice a year, typically in April and October of each school year. Singapore primary schools work on a 12-month calendar starting from January.

1.2.4 English in newly independent Singapore

English is one of the four official languages in Singapore (the other three being Malay, Mandarin and Tamil – collectively called ‘mother tongue’ languages). The current status of English in Singapore is due to several factors: its colonial past, the government’s push towards globalisation and a knowledge-based economy and the multi-lingual and multi-racial composition of its people.

When Singapore became independent in 1965, the choice of making English the working language was made. The late Minister Mentor Lee Kuan Yew explained this decision:

“Political and economic realities led us to choose English as our working language. 75% of the population then was Chinese, speaking a range of dialects; 14% Malays; and 8% Indians. Making Chinese the official language of Singapore was out of the question as the 25% who were non-Chinese would revolt... our people had to speak English, the language that is either the first or second language of the major economies of the world. English was our best choice, the language of international diplomacy, science and technology, and international finance and commerce after World War II.” (MOE, 2011b, para 3)

English became the lingua franca to unite the various ethnic groups, to maintain social stability and foster better understanding of the cultures and heritage across ethnic groups (MOE, 2009b). Besides this, English was also perceived by the population then as being the gateway to a better life - a legacy from Singapore’s colonial past where English schools were set up by the British government so that there was a ready pool of English-speaking locals to fill entry-level jobs in the civil service (Alsagoff, 2012; Goh, 2013; MOE, 2007a).

Amongst the English schools set up by the missionaries and the British government, there existed a mix of ethnic oriented schools operating exclusively in the various ethnic languages (Alsagoff, 2012). English was initially made a compulsory subject in these schools as a first

language in English schools and second language in the ethnic oriented schools (Lim, 2010). Perhaps, due to the already prestigious status enjoyed by the English language, the transition to English medium schools was generally well accepted. By 1970s, many parents opted for English medium schools for their children even though the ethnic oriented schools were still in operation (MOE, 2007a). English became the medium of instruction across all schools in Singapore in 1987. The mother tongue languages, however, have remained a part of the education system in the primary and secondary schools up till today owing to the bilingual policy adopted in 1966; the aims of which are to “equip our students with the language competencies to access Asian cultures and develop a global outlook” (MOE, n.d.a, p. 1). The bilingual policy has been credited with producing school leavers that are rooted in their cultural heritage but at the same time, confident in communicating in a globalised economy.

1.2.5 English in present day

The decision to institutionalise English as Singapore’s working language has certainly served the nation well. Because of the wide exposure to and the population’s competence in the language, Singapore’s workforce becomes attractive to overseas investors and coupled with Singapore’s ‘investor-friendly’ policies, paved the way for multi-national corporations to set up their offices and factories in the city-state (Tupas, 2011).

However, the government’s push for an English-speaking population had the unintended outcome of what is seen as declining standards of English. This is a cause for alarm as it goes against the desired goals of the nation in building a globalised, knowledge-based economy. The government, concerned that this would threaten the competitive edge of the population in an increasingly globalised world,

took steps to curb the declining standards of English mainly attributed to the wide-spread usage of a local variety of the English language, Singlish (Prime Minister's Office, 1999). Besides working with MOE to ensure the teaching and promoting of 'good' English in schools (to be detailed in section 1.2.6), the exposure to Singlish through the local media was also highlighted with the then Prime Minister persuading a much-loved local TV personality, Phua Chu Kang, to improve his less than desired usage of Singlish by enrolling into a government-supported English language programme.

In another move to raise the standards of English, a movement was initiated in 2000. Called SGEM (Speak Good English Movement), the aim of the movement is "to encourage Singaporeans to speak grammatically correct English that is universally understood" (SGEM, 2000). Activities promoting good English are planned on a yearly basis, targeting schools and the public at large based on appointed themes. Responses to the SGEM are divided (Gupta, 2010). Advocates of the movement cite the economic advantage of having a population that could speak Standard English in order to be understood by the world while detractors argue that Singlish is part of the Singaporean national identity. Others, including Gupta (2010), choose the middle ground – Singaporean English speakers would benefit from speaking a variety of different styles of English to suit the different contexts in which they find themselves on a daily basis, from the standard variety, Standard Singapore English, to the non-standard variety, Singlish.

1.2.6 Characterising the students in Singapore

Silver, Alsagoff and Goh (2009) argue that speakers of English in Singapore should be placed in the wider context of English as an International Language and World Englishes. Kachru (1992), in his highly

influential Three-Circle Model of World Englishes, place Singapore in the Outer Circle, defined as “countries where English has a long history of institutionalized functions and standing as a language of wide and important roles” (Kachru & Nelson, 1996, p. 78). Beyond these institutionalized functions though, English has been gaining traction as the language of choice at home. A comparison between the Census data in 2000 and 2010 reveals an upward trend - English is the language most spoken at home for about 32% of primary school students in 2000 as opposed to 48% in 2010. This is in place of their respective mother tongues: Malay; Tamil or other Indian languages; or Mandarin or other Chinese dialects (Department of Statistics Singapore, 2010) and set against the rich multi-ethnic and multi-lingual diversity that permeates Singapore’s language tapestry. The choice of English as the home language reflects parents’ concerns about giving their children a head start in their school life as all subjects in government schools are taught in English with the exception of the mother tongue. Given that English is spoken in the less formal and social context of the homes, it follows that the local variety would flourish and there may be instances where Singlish could be the only variety known to students at the time they begin school. The uneven proficiency of English in students poses a challenge in classrooms where Standard Singapore English is the expected variety to be used. This is escalated by the fact that English is taught as a first language in schools. The next section outlines the current English syllabus used in primary schools.

1.2.7 The English syllabus

The government’s response to the perceived declining standards of English can be seen most markedly in schools. The English language syllabus was reviewed in 2001 which resulted in the explicit teaching of

grammar following the genre-based theory popularised in Australia with roots in Halliday's SFL (Systemic Functional Linguistics) but also a promising way forward with its focus on "communication and literacy development instead of just linguistic proficiency" (Rubdy, 2010) to "help pupils become ...creative thinkers and problem solvers" (MOE, 2001).

However, Rubdy (2010) pointed out two differences in the implementation of the genre-based model as originally conceptualised in Australia. Halliday's grammatical categories, which are functional in nature, were traded off for traditional grammatical categories, a move to perhaps avoid over-loading teachers with too many changes. This had the inevitable effect of fitting in a functionally-driven grammar into a traditionally-based paradigm with its prescriptive and rigid characteristics. Another departure is the lack of emphasis on "socio-cultural processes and principles" (Rubdy, 2010, p. 214) of the Australian model, the very foundation on which the genre-based pedagogy lies. These departures encourage a traditionalist view of grammar, with teachers slipping back to the all too familiar prescriptive teaching methods, going against the intentions of the syllabus.

In relation to literacy development, the 2001 English syllabus asserts that this is "the heart of an English Language instructional programme in school. Basic literacy is the ability to read and write" (MOE, 2001, p. 7). This conception of literacy could be seen as overly simplistic and as discussed in the next section, insufficient in meeting the demands of the workplace and life in the 21st century.

Another review of the syllabus started in 2005 when English Language Curriculum and Pedagogy Review Committee (ELCPRC) was set up to review the teaching and learning in schools (MOE, 2006). This led to several recommendations for the different levels. Specifically at the

primary level, the proposed EL curriculum will focus on “oral confidence, grammar knowledge and a love for reading to anchor EL learning” (MOE, 2006, para 7). For the lower primary, the SEED programme for English language called SEED-EL was implemented in all schools in 2009 and the Learning Support Programme for students who need additional help was enhanced “to provide for a more focused approach to building basic language and reading skills” (MOE, 2006, para 9).

These recommendations were taken into consideration in designing the new English syllabus implemented in 2010 with a significant revision to the definition of literacy. A wider view of literacy was adopted - besides the traditional skills of reading, writing, listening and speaking, skills in relation to information, visual and media literacy have been included (MOE, 2010). These manifest in the syllabus as ‘viewing’ for receptive skills and ‘representing’ for productive skills, a clear indication of recognising the growing importance of the plurality of literacies in present times. There is also a strong advocacy of multimodal literacy practices (see section 2.3) that was not found in the 2001 English Language syllabus. This is apparent in the Reading and Viewing specific learning outcomes called Skills, Strategies, Attitudes and Behaviours (SSAB) statements detailed in the 2010 English Language syllabus. For example, under the learning outcome: *Process and comprehend age-/ year level-appropriate texts at literal and inferential levels*, the following SSAB statements directly relate to multimodal literacy skills:

- “Construct meaning from visual texts (e.g., pictures, diagrams, charts, icons, maps, graphs, tables)”
- “Use contextual clues (e.g., visuals, titles, sub-headings, familiar vocabulary, and typographical and visual features)”

- “Make predictions based on e.g., prior knowledge, contextual clues (e.g., titles, headings, key words, pictures)”
- “Make inferences based on e.g., prior knowledge, visual clues, contextual clues” (MOE, 2010, p. 38)

Another outcome of the recommendations by the ELCPRC was the STELLAR (STrategies for English Language Learning And Reading) programme for the lower primary, which was designed to align with the 2010 English Language syllabus. The vision of STELLAR is articulated as “children who love reading and have a strong foundation in the English language” (MOE, n.d.b.). The emphasis on reading makes the revolutionary move to eliminate the use of MOE prescribed textbooks for the learning of English unsurprising. Instead, language is taught in context through the use of MOE prescribed big books⁵ with the aims of “strengthening both language and reading skills as well as promote a positive attitude towards reading in the foundational years through the use of well-established, learner-centred and developmentally appropriate pedagogical approaches using authentic children’s literature” (MOE, 2013b, para 1). There is also an emphasis on oral skills as students are encouraged to discuss and share their opinions on the big book with their teachers and peers (MOE, 2009a).

The STELLAR programme is part of the mandated curriculum carried out in the primary schools, including the schools that participated in this project. Hence, teachers in these schools are equipped with the same resources in their delivery of STELLAR lessons. These include lesson guidelines, big books and student worksheets (MOE, n.d.b.). The lesson guidelines stipulate the kinds of questions teachers should ask at each

⁵ Big books are books in large-print format that facilitates the whole-class reading setting where teachers position themselves in front of their students with the big book on a book stand.

page while reading the big book with students. The ways that teachers enact these curriculum documents present instances of resemiotisation (Iedema, 2003), where the mode of written words in the lesson guidelines are being transformed into a dynamic, social process of an ensemble of semiotic resources⁶ used by teachers to deliver their lessons.

STELLAR with its detailed lesson guidelines, big books and worksheets may be viewed as a top-down approach, potentially conflicting with TLLM, which is essentially an initiative fostering a bottom-up approach. MOE (n.d.b) maintains that teachers can only innovate from a position of strength, of which is provided to them in the form of the support given in implementing STELLAR. Besides the lesson guidelines, teachers are also mentored by MOE specialists through lesson observations and follow-up feedback sessions. Teachers are then encouraged to adapt their lessons according to their students' needs. Apart from this, STELLAR makes up only part of the English curriculum, albeit a considerable portion. Schools are free to design their own school-based curriculum (SCI, see page 7) to complement STELLAR.

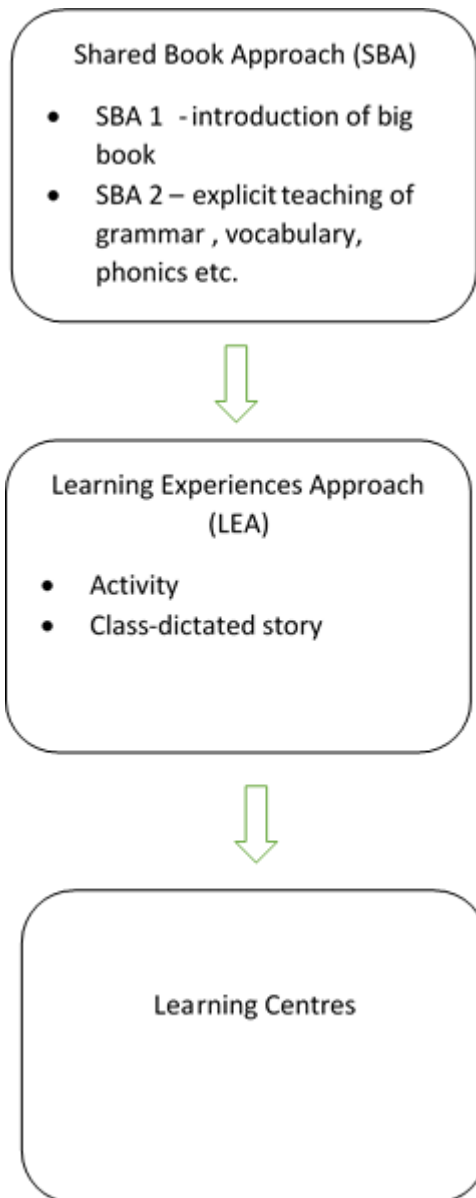
According to the STELLAR website, STELLAR is organised into three sequential phases (MOE, 2013c). The first phase is the shared reading experience which adopts the Shared Book Approach (SBA). Big books are the focus of these lessons. These lessons are further broken down into two stages. At the first stage, also known as SBA1, "the teacher introduces and shares a Big Book with the pupils" followed by the second stage, SBA 2, where the teacher carries out the explicit teaching of "language items, structures and skills ... including concepts of print, phonics and grammar" (MOE, 2013c, para 2). All the big books used in

⁶ The definition of semiotic resources can be found on page 22

STELLAR are multimodal, employing the visual and verbal modes with a mix of fiction and non-fiction genres. The second phase, the shared writing experience, employs the Language Experience Approach (LEA). This is again in two stages. At the first stage, students work through an activity related to the Big Book they have read. This is then followed by the second stage, where students write a class-dictated story led by the teacher. This may lead to an individual writing task based on the earlier group writing. The third stage called 'Learning Centres' comprise several stations in the classroom where students attempt language tasks such as listening posts, phonics exercises and extended reading corners in rotation. The phases of STELLAR are shown in Figure 1.1.

One major emphasis of STELLAR lessons is the quality of teacher-student interactions where “students are provided with opportunities to express themselves in an environment where language learning can be enjoyable and purposeful” and “students get to speak extensively, discussing and sharing their views with the teacher and their peers” (MOE, 2009a, para 5). STELLAR thus envisions classrooms where students are active agents in their learning, contributing their ideas and being given space during class discussions to do so. This thesis aims to shed some light on how teachers position themselves and their students during whole-class discussions and thereby manage the dialogic space resulting in either a learning environment where students are given space to contribute their ideas and/or experiences; or otherwise. As will be revealed later in the thesis, teachers use a variety of semiotic resources in managing this dialogic space.

Figure 1.1: Phases of STELLAR



With the current focus on teacher-student interactions in STELLAR, engagement in PETALS and multimodal literacy skills in both the STELLAR programme and the 2010 English language syllabus, a study that investigates how teachers make space for the various voices during STELLAR lessons using the semiotic resources of spoken language, written language, pictures and gestures in shaping students' learning at this level is relevant and timely.

1.3 Research questions

This thesis is primarily concerned about how teachers make dialogic space for students' voices in shaping their learning and engaging them through the deployment of the various semiotic resources. For the purposes of this thesis, the term 'semiotic resources' is defined as "resources (or modes) (e.g. language, image, music, gesture and architecture) which integrate across *sensory modalities* (e.g. visual, auditory, tactile, olfactory, gustatory, kinesthetic) in multimodal texts, discourses and events, collectively called *multimodal phenomena*" (O'Halloran, 2011, p. 121). This can be best observed during big book lessons where the main curricular objective would be the co-construction of meaning between the semiotic resources of pictures and written words in big books is being negotiated in the interactions between teachers and students. In their efforts to meet this objective, teachers simultaneously use their 'embodied' semiotic resources such as gestures, body positions and weaving these semiotic resources together to co-construct the meaning of the big books, thus engaging students in multimodal pedagogic discourse. Whilst co-constructing the meaning of big books, it necessarily requires teachers to address the multimodal literacy skills outlined in Section 1.2.7.

To address these concerns, the research questions for this thesis are formulated as below:

1. How do teachers interact with students in managing dialogic space in order to promote student engagement during big book reading lessons?
2. What issues does this raise in relation to teaching and learning?
3. How does a multimodal perspective contribute to a richer understanding of dialogic space in these classrooms?

The emphasis on multimodality in the ways that the teachers in the study co-deploy the various semiotic resources is apparent from the research question and is central to the aims of this thesis. The investigation of the multimodal pedagogic discourse of each of the teachers would reveal the different ways in which teachers use the different semiotic resources in order to achieve their curricular goals, while promoting student engagement and socialising students as pedagogic subjects.

The term 'pedagogic discourse' derives from the work of Bernstein. Bernstein (1990) defines pedagogic discourse as "the rule which embed a discourse of competence (skills of various kinds) into a discourse of social order in such a way that the latter always dominate the former. We shall call the discourse of transmitting specialized competences and their relation to each other *instructional* discourse, and the discourse creating specialized order, relation and identity *regulative* discourse" (p.183; italics in original).

Christie (2002, p. 25), working within the theory of Systemic Functional Linguistics (henceforth SFL), prefers the term 'project' instead of embed (the term used by Bernstein) - the regulative discourse projects the instructional discourse due to its alignment with SFL. For Christie, the regulative discourse has "to do with the overall goals, directions, pacing and sequencing of classroom activity" and the instructional discourse "to do with the particular 'content' being taught and learned" (2002, p.3). Within any lesson, the regulative discourse projects the instructional discourse to "bring the pedagogic activity into being, to establish goals, to introduce and sequence the teaching and learning of the field of

knowledge at issue and to evaluate the success with which knowledge is learned” (Christie, 2002, p.3); all of these being encapsulated in the term pedagogic discourse. The term multimodal pedagogic discourse is coined by Lim (2011) to highlight the multimodal nature of such discourse. For example, the management of behaviours in the classroom as part of the regulative register is often realised through speech alone (e.g., Stand!), through gestures alone (e.g., fingers to the lips to mean silence) but also, at times, through both modes (e.g. pointing finger to the direction that the student should stand together with the verbalisation, ‘Stand!'). Similarly, the instructional register could be multimodal in the ways that the teachers use pictures to reveal character attitudes through facial expressions, for example.

In exploring the above aspects of multimodal pedagogic discourse, it is imperative that the study begins with a theoretical standpoint that language and other semiotic resources construct knowledge instead of being mere conduits for knowledge. Systemic Functional Linguistics (SFL) takes such a standpoint and provides the theoretical foundation for this research study. Chapter 2 provides an overview of the theories that are relevant to this study including an introduction to SFL.

1.4 Conclusion

In this chapter, I started by introducing the rationale for this research which has to do with my personal experiences as a teacher, a post-graduate student and a member of a research team investigating teaching and learning in schools in Singapore; and my interest in multimodality in education. This research is also motivated by the current educational landscape, where the Ministry of Education (MOE) has introduced many initiatives and policies to improve teaching and learning

in schools including the STELLAR programme and 'Teach Less, Learn More' set against the backdrop of the economic development of the country since independence.

The three research questions investigate how three teachers managed the dialogic space in their classrooms during whole class discussions and the issues that may arise from this. The merits of undertaking this research using a multimodal approach is also considered.

The next chapter focuses on the theoretical underpinnings of this research study, which are the Systemic Functional Linguistics and a particular multimodal approach, the Systemic Functional-Multimodal Discourse Approach.

CHAPTER 2 : SYSTEMIC FUNCTIONAL LINGUISTICS & SF-MDA

2.1 Introduction

This study is grounded in the belief that teaching and learning in classrooms is a social endeavour where social beings interact, co-construct meaning and eventually come to a common understanding. In investigating such often-complex interactions, the study requires a robust and yet flexible theory that views language as a social semiotic and extends this view to other semiotic resources such as space, gestures and images. Given the complexity of these multimodal interactions, the theory must also provide tools for the systematic selection of data for analysis. Further, the theory has to be able to provide tools to investigate how teachers navigate student-teacher interactions and engage students in the co-construction of meaning. The following sections will outline the ways that SFL meets these requirements.

2.2 Key tenets of SFL

As mentioned earlier, the theory that underpins this research study is SFL (Halliday, 1975, 1978; Halliday & Matthiessen, 2004; Martin, 1992) by Michael Halliday and was originally conceptualised for the semiotic resource of language. Halliday began work on SFL in England, expanding the work of J R Firth, who was his teacher, and presented his first seminal paper in 1956 (Webster, 2009). His move to University of Sydney marked the beginning of what has been called the Australian Systemics or Australian Genre Theory. His work enjoyed great influence in Australia and elsewhere in the world. In the meantime, work on SFL in England continued to grow, resulting in the 'Cardiff grammar' associated with the work of Robin Fawcett, Tom Bartlett and Lisa Fontaine, among others.

Eggins (2004) listed four basic characteristics of SFL that form the basis for which SFL was chosen as the main theoretical framework for this research study. The four characteristics are: “that language use is functional; that its function is to make meanings; that these meanings are influenced by the social and cultural context in which they are exchanged; and that the process of using language is a semiotic process, a process of making meaning by choosing” (p. 2). These will be considered in turn below with reference to language, one of the semiotic resources available to us in making meaning. Because SFL was first conceptualised with language and language is one of the semiotic resources considered in addressing the research questions of this thesis, Sections 2.2.1 to 2.2.5 will focus solely on language whilst SFL and multimodality will be discussed in Sections 2.2.6 and 2.2.7.

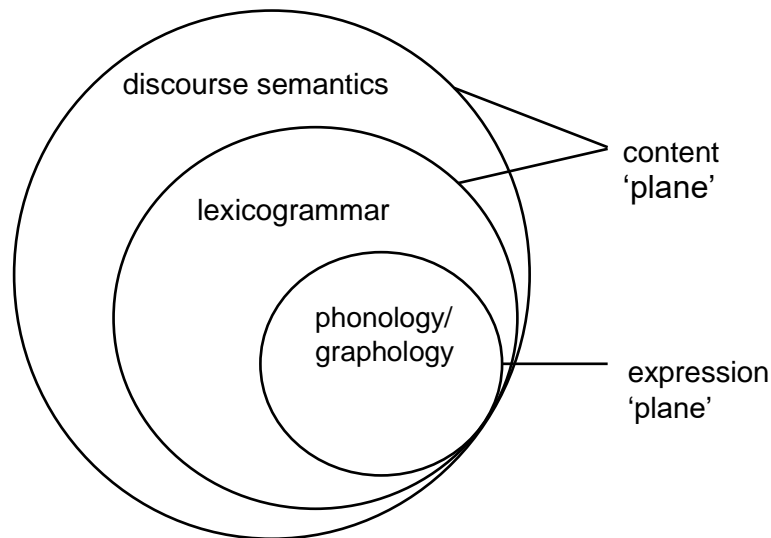
2.2.1 The functional in SFL

The term functional in SFL means “the conceptual framework it is based on is functional instead of a formal one” (Halliday, 1994, p. xiii). Halliday’s conception of how we use language in context is markedly different from other linguists of his time who preferred to focus on the structures of language instead. This is also referred to as formal description of language; the basis of which is the ways elements of language combine. Halliday’s contribution is to theorise that language is always used in context. SFL is therefore concerned with two basic questions: ‘How do people use language?’ and ‘How is language structured for use?’ (Eggins, 2004, p. 3). It is this attention to both function and form that makes SFL a flexible and productive theory.

2.2.2 Language functions to make meaning

Language is organised in a tri-stratal semiotic system of phonology/graphology, lexicogrammar and discourse semantics as shown in Figure 2.1.

Figure 2.1: The tri-stratal semiotic system of language (Martin, 2014, p.7)



The relationship between the strata is viewed as one of realization i.e., discourse semantics is realized in the lexicogrammar which is then realized through phonology/graphology (Halliday & Matthiessen, 1999). The focus of each stratum increases through the three levels of abstraction: syllables in phonology; clauses in lexicogrammar and texts in discourse semantics (Caffarel, Martin, & Matthiessen, 2004).

Hjemslev (1961) first proposed the stratification of language into two planes – the content plane that is the construal of meaning; and the expression plane, which is the sounds or writing we produce in communicating meaning. From this, Halliday further stratified the content plane into lexicogrammar and discourse semantics (Martin, 1997).

Lexicogrammar is concerned with the resources for the structure of

wordings in language and discourse semantics is concerned with the resources for organising texts. The expression plane articulates the content plane through phonology in speech or graphology in writing.

At the stratum of lexicogrammar, meaning in SFL lies in the three metafunctions of ideational, interpersonal and textual. The ideational metafunction is the means by which language construes human experience, reflecting both internal and external worlds of human consciousness. The ideational metafunction is further subcategorised into two other entities: the experiential and logical. The focus of the former is on the events, participants involved in those events and circumstances under which the events occurred while the latter describes the systems “which set up logical–semantic relationships between one clausal unit and another” (Halliday, 2003b, p.17).

The interpersonal metafunction is the means by which language enacts social relationships, providing the grammatical resource for realizing an interactive move in dialogue (Martin, Matthiessen, & Painter, 1997, p. 57).

The textual metafunction refers to the internal organisation of a text in creating a meaningful whole – the flow of information in a text. The interpersonal and ideational metafunctions are being actualised by the textual metafunction through its organising properties (Halliday, 1978) such as thematic progression and cohesive devices (e.g. ellipsis, reference, collocation etc.). These three metafunctions are at play simultaneously in every communicative act.

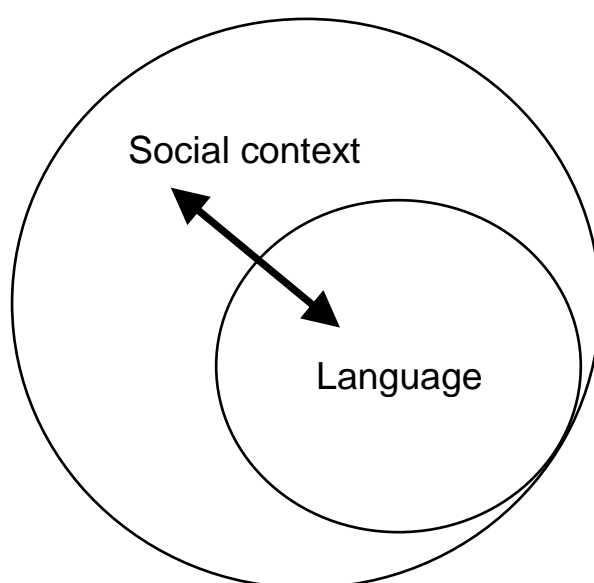
2.2.3 Context in SFL

SFL recognises language as social and as a resource for making meaning, thus modelling language as a social semiotic (Halliday, 1978).

The social aspect is central in Halliday's SFL. For him, it is through language that people interact with each other and transmit "the essential qualities of society and the nature of social being" (Halliday, 1978, p. 9). Thus, meanings in such interactions are grounded in the social and cultural context in which they are negotiated. It is through such interactions that "culture is being transmitted from one generation to another" (1978, p. 18) in a particular community.

The relationship of realisation between language and social contexts as semiotic systems (Martin, 1997) is shown diagrammatically in Figure 2.2. The double-headed arrow signifies how language reflects while at the same time constructs contexts of meaning. For example, for the interpersonal metafunction, language is viewed as enacting relationships but also as constitutive of those relationships. Following Lemke (1995), Martin (1997) describes the relationship as metarefounded; that is "social context comprises patterns of language patterns" (p. 4).

Figure 2.2. The realisation relationship between language and social context (reproduced from Martin, 1997, p.4)

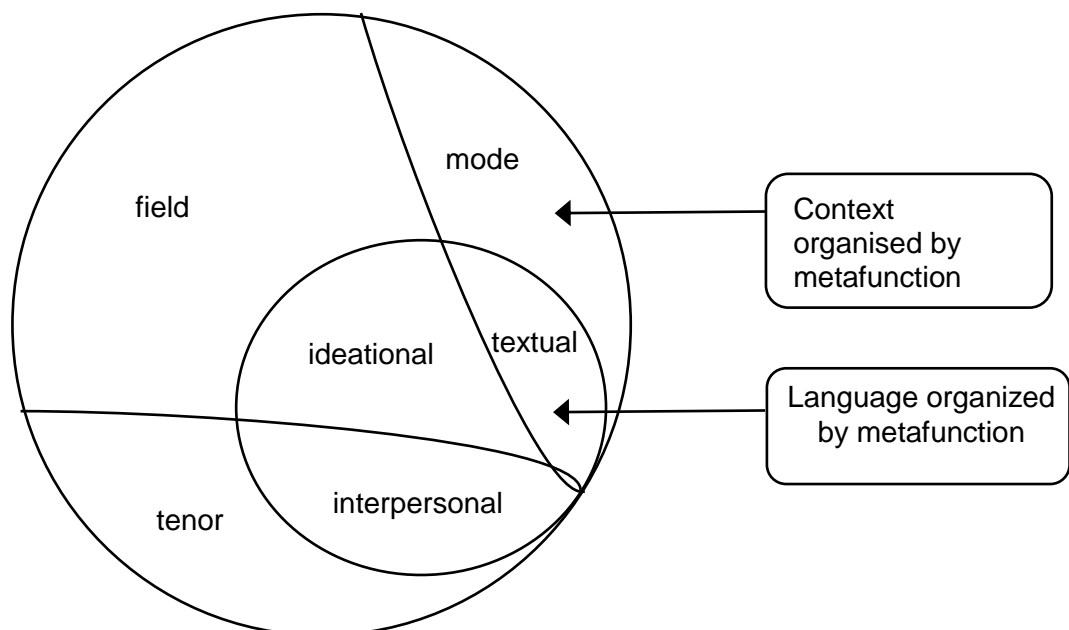


As in language, context in SFL is similarly stratified into two levels of abstraction: register and genre. Register or context of situation refers to the experience of language with respect to the context of situation as explained by Halliday (1978) as follows: "We do not experience language in isolation... but always in relation to a scenario, some background of persons and actions and events from which the things that are said derive their meaning. This is referred to as 'situation', so language is said to function in 'contexts of situation'" (p. 28). Halliday's view of this was heavily influenced by the work of Malinowski, who proposed that written texts could only be fully understood by the authors and their communities, introducing the notion of context of situation (Halliday & Hasan, 1985).

These contexts of situation can be described according to the register variables of field, tenor and mode. Field relates to the kind of social activity for which language is a part; tenor relates to the social roles enacted by the participants of the social activity and mode relates to the role that language plays (Halliday & Hasan, 1985). These variables form the context for the particular variety of language or register. For example, from the field of a text, one would be able to identify its topic or subject matter to be matters related to psychology, geography or history; from the tenor of a text, one would be able to discern the role relationship between the writer or speaker and his/her audience to be one of unequal status such as parent-child and employer-employee or equal status such as among friends or colleagues; lastly, from the mode of the text, one would be able to identify whether a text is written or spoken and planned or spontaneous. Each of the register variables is realised in the three metafunctions of language mentioned earlier: field is realised in the ideational metafunction; tenor is realised in the interpersonal metafunction and mode is realised in the textual metafunction - the organisation of

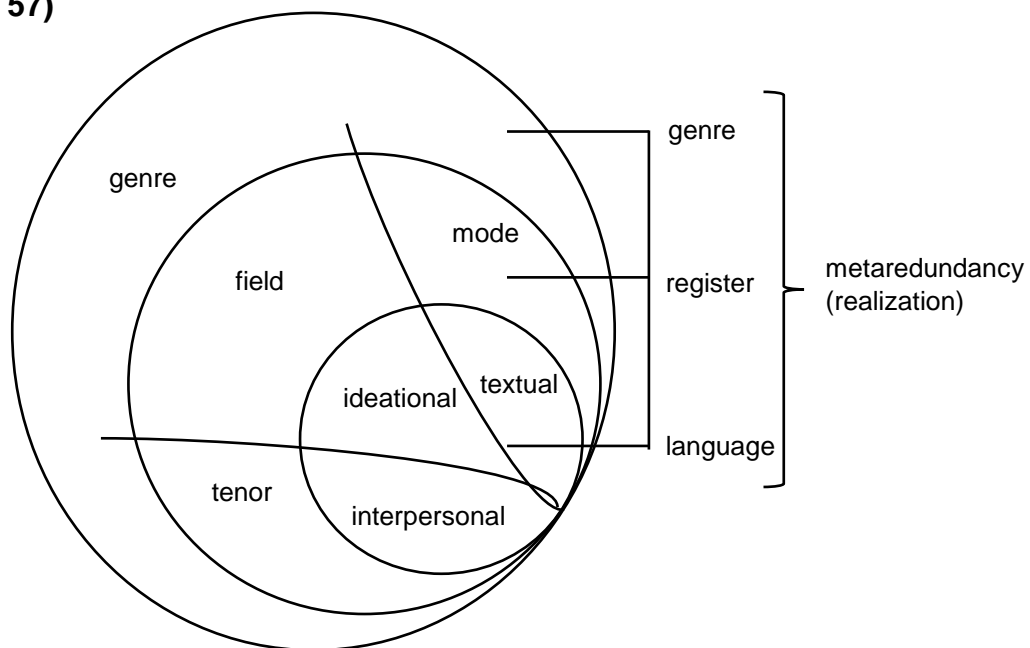
language is thus systematically related to the organisation of context thereby resulting in a natural relationship between the organisation of meaning in language and that of 'context of situation' (Halliday, 1978). This relationship of realisation can be viewed from two perspectives (Eggins & Martin, 1997). From the perspective of context, the field, tenor and mode constrains the potential meaning of the three metafunctions of language – ideational, interpersonal and textual. From the perspective of language, the choices made in constructing ideational, interpersonal and textual meaning in turn shapes the field, tenor and mode. Fig 2.3 shows the relationship between the register variables and the metafunctions; the former mapping on social context (outer circle) and the latter mapping on language (inner circle).

Figure 2.3: Language and context organised by metafunction
(adapted from Eggins and Martin, 1997, p. 242)



The model of 'context' in SFL has not been developed to the level of intricacy as that of SFL grammar (Flowerdew, 2014) and has been criticised for its lack of precision in defining the boundaries of the terms 'field', 'tenor' and 'mode', resulting in researchers working within this tradition to fall back on "common sense" (Hasan, 2009).

Figure 2.4. Metaredundancy of genre and register (Martin, 2002a, p. 57)



Genre or context of culture is viewed from the perspective of culture and is at a higher level of abstraction "above and beyond metafunctions to account for relations among social processes in more holistic terms, with a special focus on the stages through which most texts unfold" (Martin, 1997, p.6). Genre allows predictions to be made as to how a text unfolds; for instance, in a procedural text such as a recipe, one would expect instructions to be given in a sequential order. As such, "genre represents the system of staged social processes for which social subjects in a given culture live their lives" (Martin, 1997, p. 13). The relationship between

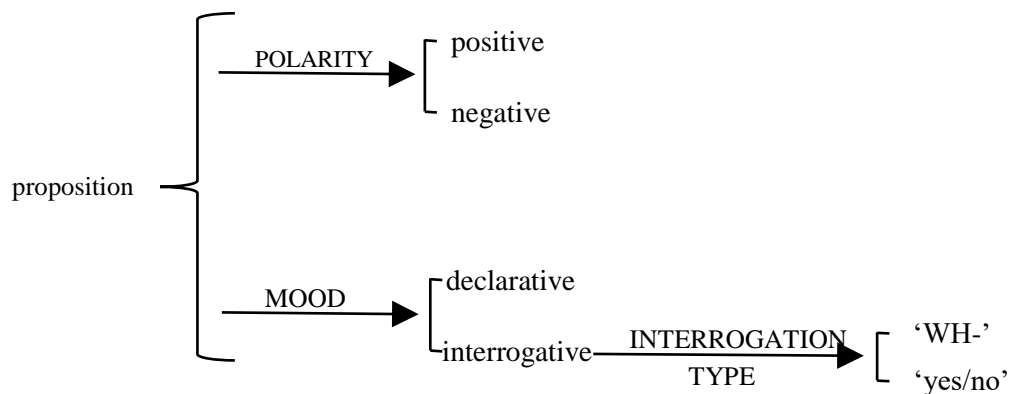
genre (context of culture) and register (context of situation) is similar to that between register and language: that of 'metaredundancy' as noted above (Lemke, 1995). Genre metaredundancy with register, representing patterns of register patterns.

2.2.4 Using language is a semiotic process

As stated earlier, following Eggins (2004), a semiotic process is defined as "a process of making meaning by choosing" (p.2). The concept of choice is fundamental to SFL. Language as a semiotic resource provides us with a system network in order to make meaning, a departure from formalist grammar where the focus is on structure, the syntagmatic axis of language. Systems, on the other hand, represent the paradigmatic organisation of language. As explained by Halliday, "A system is a set of options with an entry condition: that is to say, a set of things of which one must be chosen" (Halliday, 2003a, p. 180). Eggins (2004) elaborated on this concept, providing the crux of how language is a semiotic system: "If language is a semiotic system, then language use is a process of making meanings by choosing. In making a choice from a linguistic system, what someone writes or says gets its meaning by being interpreted against the background of what could have been meant (said or written) in that context but was not" (p. 20). Seen from this perspective, meaning-making is a dynamic process of making choices within the different system networks, which represent the meaning potential of the overall system of language. These system networks are represented both vertically and horizontally. On the vertical axis, options are represented by brace brackets '{' or square brackets '['. The former requires a simultaneous selection of what Halliday (2003a) calls 'terms'. A strength of system networks is that terms (such as 'declarative' and 'interrogative') are presented against alternative options – we understand what a particular term means because of its

relationship with other terms in the system network. In the system network in Fig. 2.5, the point of entry at ‘proposition’ requires the simultaneous selection of both terms POLARITY and MOOD. The square brackets require the selection of one of the terms presented. Referring to the same system network, when ‘interrogative’ is selected, either the terms ‘WH-type’ or ‘yes/no type’ must be chosen. On the horizontal axis, system networks are organised along a scale of delicacy operating from the left to the right – the least delicate choice is the first entry point into the system and as the system network progresses rightwards, more delicate choices are being made (Eggins, 2004). ‘Delicacy’ here is defined as the “degree of detail, or specificity, to which the description is taken” (Halliday & Matthiessen, 2006, p. 325). Fig 2.5 shows a system network and its degree of delicacy.

Fig 2.5: System network [reproduced from Halliday (2003b, p. 8)]



The string of choices made in the system network could be written as a “selection expression” (Halliday, 1996, p. 322). If the option ‘WH-type’ is chosen, then the selection expression could be written as [interrogative: WH-type; positive]. The colon indicates the options presented by the

square brackets while the semi-colon indicates simultaneous options (indicated by the brace brackets).

The four points presented above: language use is functional; language functions to make meaning; context in SFL; and using language is a semiotic process, give a brief overview of SFL and collectively demonstrate how SFL provide a strong foundation from which to investigate pedagogic discourse.

2.2.5 SFL and educational research

It is no coincidence that SFL research is flourishing in educational settings as Halliday was himself a teacher and it was in this capacity that his initial ideas on educational linguistics came to bear (Christie & Unsworth, 2005; Webster, 2009). Today, SFL-based research has had far-reaching impact on education. One example of such research is the work of Martin and colleagues on genre and writing (e.g. Eggins & Martin, 1997; Martin, 1997, 1999, 2009; Martin & Rose, 2007) involving action research with teachers in partner schools into ways of developing the writing curriculum to empower students to be producers of texts that orientate to shared social goals. Their work has enjoyed great influence locally in Australia and abroad. In Singapore, the 2001 English Language Syllabus adopted the genre-based literacy pedagogy by explicitly including the teaching of the various text-types and the grammatical features that characterise these different text-types. Martin's work began with primary school writing and later on to writing at the secondary school level (Christie & Martin, 1997). This then further expanded to reading (e.g. Rose, 2004; Rose, 2005) and the specific disciplines of school subjects such as history (Coffin, 2006; Martin, 2002b) and science (Macken-Horarik, 2002).

Research of other school subjects have also benefitted from the theoretical underpinnings of SFL. O'Halloran (2004) shows how teachers calibrate interpersonal relationships with students, thereby positioning them as learners in Mathematics classrooms through an exploration of the systems of mood and modality. Christie and Derewianka (2008) studied the writings of children from early childhood to adolescents to track the trajectory of their development in school subjects English, history and science. They concluded that students' control and use of grammatical metaphors in their writing was imperative to their academic success. Christie (2005) combines Bernstein's theory of sociology with SFL to address macro-level questions on the subject English literature such as who controls the national curriculum as well as micro-level pedagogic concerns such as the teachers' negotiation of interactions in the construction of shared understandings. Christie's work bears much relevance to this thesis than suggested here and hence will be elaborated upon in Chapter 4.

2.2.6 SFL and Multimodality

Thus far, the discussion has been limited to language as this is the semiotic resource for which Halliday had built his theory of SFL. Halliday and Hasan (1985) paved the way for the expansion of SFL to other semiotic resources when they acknowledged that "culture is a set of semiotic systems" (p. 4). The pioneering works of Hodge and Kress (1998), Kress and van Leeuwen (2006) and O'Toole (1994) further set the motion for the exponential growth of multimodal research that we witness today.

The research of Kress and van Leeuwen and O'Toole on the semiotic resource of images and displayed art respectively have been credited as the turning point for the SFL approach to the analysis of

semiotic resources other than language and have been particularly influential in the field of education such as the study of the interweaving of the various semiotic resources in the specific school subjects (e.g. Kress et al., 2005; Kress, Jewitt, Charalampos, & Ogborn, 2001; O'Halloran, 2005; O'Halloran, 2007a), through the different levels of schooling from pre-school to higher education (e.g. Barton & Ryan, 2014; Bourne & Jewitt, 2003; Crescenzi, Jewitt, & Price, 2014; Flewitt, 2006; Macken-Horarik, 2016), of specific space in the classroom (e.g. Kress et al., 2005; Lim et al., 2012; Stein, 2007).

The vast influence of SFL in education could be explained by the publication of the work by The New London Group (1996) being in the same year that Kress and van Leeuwen first published their work. The New London Group (1996) made the assertion that the future of education was in preparing students with the skills necessary to consume and produce a range of texts described as multimodal. At that time, this was considered revolutionary and has led to research variously labelled as multiliteracies, multimodality and new literacies. As the communication landscape changes, the dominance of the written word is brought into question with researchers asserting that a linguistic analysis on its own would result in a partial understanding of the meaning of texts of contemporary society, which are mostly multimodal (Kress & Van Leeuwen, 2006; Machin, 2009). Even at its plainest, texts are multimodal by way of the selection of fonts and font size for written language (van Leeuwen, 2006) and changes in voice quality in spoken language (van Leeuwen, 1999).

O'Halloran (2011) cited three reasons for the move from linguistic analysis to the analysis of language with other semiotic resources. Firstly, discourse analysts deemed it necessary to understand the different

semiotic resources at play in the multitude of multimodal texts found in contemporary society. The raising awareness of such multimodal texts has been attributed to the dominance of the visual in recent times. Historically, however, this dominance of the visual can be seen from texts from the past such as the illustrated manuscripts of medieval times and the tabloids of the 19th century. Multimodal texts are, therefore, not a new phenomenon. What is new, as suggested by Mitchell (2002), is how visual images are created by way of new technologies. He cautioned against thinking of this as a 'visual turn' "to declare a single great divide between the age of literacy (for instance) and the age of visibility" (Mitchell, 2002, p. 173); instead preferring to think of it as a historical turn in view of new technologies. The advantage of viewing multimodality as a recurring theme from the past to the present is that it reminds us that the computer technology of the present times makes it easier to produce images but it is not essential. A printed book with words and images is no more 'multimodal' than a drawing made by a student accompanied by an oral explanation.

The second reason given by O'Halloran is the availability of technological means in carrying out multimodal analysis. There are software programmes presently available for the analysis of multimodal texts such as Multimodal Analysis Video, ELAN and NVivo. With such software programmes, researchers are now able to analyse complex video data and organise their analysis easily. Coding from video data directly instead of having to rely on its transcription is also a benefit from using these programmes. A review of these software programmes is beyond the scope of this thesis but it is apparent that these contribute to the rising research on multimodality.

The third reason is the increasing number of researchers from various fields coming together to investigate problems that are similar is a contributing factor as MDA is interdisciplinary in nature. This can be seen from the work of, for example, van Leeuwen (1999) where his musical background provided unique insights into how the semiotic resources of speech, music and sound combine to make meaning and O'Toole (1994) whose profession in architecture combined with his interest in social semiotics led to one of the first known works in multimodality, "The language of displayed art".

Generally, multimodality acknowledges that the different semiotic resources such as images, stance, gesture, posture and language make meaning; each with the potential to be as important as the other semiotic resources. Kress and Van Leeuwen define multimodality as "the use of several semiotic modes in the design of a semiotic product or event" (2001, p. 20). Kress (2010) adds that multimodality "bring[s] all means of making meaning together under one theoretical roof, as part of a single field in a unified account, a unifying theory" (2010, p. 5) and sees language as only one of the available semiotic resources. It is then possible to think about how these semiotic resources are selected and combined in constructing meaning of a "multimodal phenomenon" (O'Halloran, 2011, p. 21). Indeed, how the semiotic resources combine and inter-relate in meaning-making or inter-semiosis is one of the main objectives of multimodal research (Jewitt, 2009) and is present, for instance, in the works of Ravelli (2006) and Martin (2008) as intersemiosis and coupling respectively.

The complexity of such an endeavour cannot be underestimated – the multimodal phenomena would have to be deconstructed into the different semiotic resources to explore how meanings are constructed

individually before examining how these semiotic resources combine to make meaning (Ravelli, 2006). This combination is not a process of adding the meanings from each of the semiotic resources to become a multimodal phenomenon. Rather, meanings of each semiotic resource interact and multiply to produce intricate and complex meanings more than the sum of the meanings of each of the semiotic resources (Lemke, 1998).

The close examination of this multiplication of meanings has led to the notion of multimodal cohesion (e.g., Liu & O'Halloran, 2009; Royce, 2007; van Leeuwen, 2005); that is how the semiotic resources work together or otherwise in a multimodal phenomenon. The term 'work together' here refers to the interaction of the three metafunctions – ideational, interpersonal and textual in the semiotic resources present in the multimodal phenomenon. Semiotic resources that work together are said to be in harmony as the meanings deriving from the three metafunctions of each semiotic resources are aligned with each other. When the various semiotic resources construct different meanings that are in discord, they are said to be in conflict. van Leeuwen (2005) gave the example of the Simon and Garfunkle song 'I am a rock' to show how the wistful and dejected meanings constructed by its lyrics are in conflict with the meanings constructed by the upbeat rhythm of the music. This has the effect of presenting the song as a "defiant, almost cynical piece" (van Leeuwen, 2005, p. 250) drawing attention to how semiotic resources can be orchestrated to be in conflict with each other to serve the goals of the sign-makers.

The grouping of the various semiotic resources under the term multimodality and the analysis of the semiotic resources following a model from linguistics have been contested. Leander and Frank (2006) contended that multimodality overlooks the differences of the various

mediums and groups these under the term semiotic resource whereas these should be “adequately distinguished as involving distinct social practices” (p. 185). Machin (2009) challenged the modelling of the analytical framework for language (SFL) to other semiotic resources such as images given their underlying differences. He acknowledged however the benefits of such a framework in that it allows for the systematic analysis of the visual semiotic resource.

The importance of language is by no means diminished in adopting a multimodal approach. Norris (2004) posits that multimodality “steps away from the notion that language always plays the central role in interaction, without denying that it often does” (p. 3) and Jewitt (2009b) echoes this by stating that “language is widely taken to be the most significant mode of communication, especially in contexts of teaching and learning” (p. 14).

Jewitt (2009a) describes three approaches that characterises multimodal research thus far – social semiotic multimodality, multimodal interactional analysis and systemic functional multimodal discourse analysis. The social semiotic approach to multimodal analysis is pioneered by Kress and van Leeuwen (2001) and is influenced by Halliday’s social semiotics. From this perspective, signs play a central role and make meaning simultaneously through three metafunctions; interpersonal, ideational and textual. The interpersonal metafunction enacts social relations, the ideational metafunction presents a version or versions of human experience and the textual metafunction refers to how coherence is achieved. Within this approach, “metafunctions are generally used as a conceptual tool to describe and explore the semiotic resources and meaning potential that people use to make meaning rather than to map the system itself” (Jewitt, 2009b, p. 17).

Social semiotics challenges the traditional view that there are stable and closed systems of representation and communication for us to 'use', where the relationship between form (signifier) and meaning (signified) is arbitrary (Saussure, [1916] 1974). Social semiotics sees sign-makers as active agents of making meaning by selecting the most apt available form at that particular moment in time (Kress, 1997, 2000, 2003). People can and do select from a range of available semiotic resources to make meaning according to their interests and the social contexts they are in. This is in essence the concept of the motivated sign (Kress, 1993). Every time a signifier is used, its potential to mean is being changed (Jewitt & Kress, 2003). The social semiotics multimodal approach has been adopted in two landmark studies in the school subjects Science (Kress et al., 2001) and English (Kress et al., 2005).

The second approach is the multimodal interactional analysis (MIA) as shown through the work of Scollon and Scollon (2003) and Norris (2004). The emphasis is on the construction of identity through multiple modes during interaction at any given moment. The concept of modal intensity plays a significant role in MIA. This involves taking into consideration the intensity of the communicative modes⁷ used by the actors when communicating such that those modes with high intensity are attended to the most by the participants and removal of such modes would result in a change in the communicative meaning.

The third approach is called systemic functional multimodal discourse analysis (SF-MDA) and is linked to the work of O'Toole (1994) in his analysis of displayed art such as paintings, sculpture and architecture and O'Halloran (2005, 2007a). This approach similarly originates from

⁷ In MIA literature, 'communicative mode' is used instead of 'semiotic resource'.

Halliday's social semiotics although the emphasis is different from that of the social semiotics multimodal approach described above. Jewitt (2009a) explains that the emphasis of SF-MDA is the metafunctions; the mapping out of system networks across semiotic resources and the intersemiotic relations of these semiotic resources whereas the social semiotics approach to multimodality emphasizes on social semiotics and the agency of the sign-maker. In addition to social semiotics, the theory underpinning SF-MDA is systemic functional linguistics. As such, whilst social semiotics pave the way for the recognition of semiotic resources other than language, systemic functional linguistics provides a solid foundation from which to map out the functions of these resources in a systematic way.

The SF-MDA approach is favoured in this thesis due to the nature of multimodal phenomena being studied. The close analysis of the semiotic resources, linguistic and non-linguistic, deployed during the interactions between teachers and students would reveal patterns of interpersonal relations that bring about intersubjectivity. Further, the SFL framework used to analyse across semiotic modes provides a systematic and consistent tool to examine the complex and dynamic video data. As a novice researcher working alone, the analysis of such data can prove to be a daunting task. The systematic nature of SFL provides assurance that the analysis is grounded in the experience of other researchers working within similar contexts and is a useful starting point.

Although there is much interest, multimodality still is an emerging research field (Jewitt, 2009b) due to its relatively recent introduction - the first publications on multimodality are found only in the mid-1990s in the seminal work of O'Toole (1994) in his analysis of displayed art, sculpture, architecture and paintings; and Kress and van Leeuwen (2006) in their description of visual design in images. Because of this, a 'loose'

application of terminology exists in multimodality as noted by O'Halloran (2011) where, for example, the different terms 'semiotic resources', 'modes' and 'modalities' refer to the meaning-making resources we use to communicate. van Leeuwen (2005) defines semiotic resources as "the actions, materials and artefacts we use for communicative purposes, whether produced physiologically – for example, with our vocal apparatus, the muscles we use to make facial expressions and gestures – or technologically – for example, with pen and ink, or computer hardware and software – together with the ways in which these resources can be organized. Semiotic resources have a meaning potential, based on their past uses, and a set of affordances based on their possible uses, and these will be actualized in concrete social contexts where their use is subject to some form of semiotic regime" (p.285). O'Halloran (2011) defines the same term as "the resources (or modes) (eg., language, image, gesture and architecture) which integrate across sensory modalities (eg., visual, auditory, tactile, olfactory, gustatory, kinesthetic) in multimodal texts, discourses and events, collectively called multimodal phenomena" (p. 121). Differences between the two definitions are apparent. Examples of van Leeuwen's semiotic resources would be speech and writing whereas for O'Halloran, these would be language in the auditory and visual modalities respectively. It would thus seem that van Leeuwen's conceptualisation of semiotic resources is an integration of O'Halloran's resources and modalities. The way that these resources are materialised, similar to van Leeuwen's physiological and technological means of production, are what O'Halloran calls 'medium' (2011, p.121). If one were to adopt the social semiotics approach to multimodality, the term 'mode' defined as "organised, regular, socially specific means of representation" (Jewitt, Kress, Ogborn, & Tsatsarelis, 2001, p. 5). This

thesis adopts the term 'semiotic resources' in line with the current literature on SF-MDA, following the definition offered by O'Halloran (2011).

2.2.7 Multimodality and literacy

Literacy in current times is an elusive term that defies a single, universal definition. This is caused by the ever-changing advances in technology that continually revolutionise the way we communicate. Dismissing the notion that literacy is "achieved once and for all", Colombi and Schleppegrell (2002, p. 2) argue that literacy is "a process of meaning-making that continuously evolves both in society and in the individual".

Educational institutions have unfortunately been slow to recognise the impact of technology on the way we communicate. A review of the traditional notion of literacy which is primarily language-based is needed, especially since the kinds of literacy students engage in outside of school are far from 'traditional' (Blanchard & Moore, 2010; Marsh, 2004), often incorporating screen-based texts that are animated as compared to the static texts in books. This textual shift indicates that other semiotic resources apart from words such as images, sound and movement have become increasingly prominent in everyday texts, changing the way we communicate (Kress, 2000). As such, many scholars have pushed for a broader conception of literacy in education in order to achieve the overarching goal in education of preparing students to fully participate in the social, economic and political dimensions of their daily lives (e.g. Jewitt, 2005; Jewitt & Kress, 2003; Lankshear & Knobel, 2006; The New London Group, 1996; Unsworth, 2008). Unsworth (2002) asserts that "while many of the fundamentals of established, language-based literacy pedagogies will endure in the foreseeable future, they are by no means sufficient for the development of the kinds of literacy practices that already

characterise the continuously evolving information age of the new millennium” (p. 62). In order to fully participate in society, students need to process and produce the kinds of multimodal texts that are typically found in the digital age of today. Research in this area has been growing and are variously named ‘multiliteracies’ (e.g., Cope & Kalantzis, 2000), ‘new literacies’ (e.g. Lankshear & Knobel, 2006) and ‘multimodality’ (e.g., Kress & Van Leeuwen, 2001; Kress & Van Leeuwen, 2006).

There is still, however, a place for traditional language-based literacies in the school curriculum. The semiotic resources of spoken and written words have a long history in human communication and would continue to play a significant role in the future. A curriculum that interweaves traditional language-based literacies and literacies that recognise other semiotic resources seems ideal in the present times. Djonov alludes to this when she writes that “literacy should not be fragmented into different kinds of literacy such as visual literacy, digital literacy, emotional literacy, etc., which ultimately leave the hegemony of traditional literacy untouched. It should be defined as design, as an active dynamic process of creating meaning out of multimodal semiotic resources” (2010, p.119).

Similarly, Bearne (2009) describes how “literacy has taken on a spatial turn” (p. 156) where writing often includes images and different fonts; and reading texts are both print-based and screen-based; the latter combining other semiotic resources such as gestures and sound. This leads her to question the aptness of the term ‘literacy’ as it connotes linguistic imperialism and suggests the term ‘text’ instead to encapsulate the multisemiotic resources combined through different media for the purposes of communication. She stresses the importance for students to be equipped with the skills necessary to compose such texts.

Whilst composing texts, or what has been called productive skills of speaking and writing, is necessary, it has to be complemented with receptive skills - that of reading and listening or, in keeping up with terminology that acknowledges the multimodal nature of all texts, viewing skills. Reading words in a linear fashion is markedly different from reading a multimodal page, where the various semiotic resources vie for the readers' attention, opening up multiple possibilities of a reader's point of entry into the text (Jewitt, 2005). The complex process of reading multimodal texts, both print-based and screen-based, has proven to be challenging to students as highlighted by Jewitt (2005) in her study of Science lessons. When viewing a CD-ROM on the concept of 'particles', it was necessary for students to read the labels as well as the images. However, some students seemed to attend to the images more than the labels as they misinterpreted an image to be that of a solid even though this was clearly labelled 'liquid'. Jewitt attributed this to the students' misinterpretation of the colour and reflectivity of the liquid. Her argument that the teacher's mediation is crucial in ensuring that students interpret the images correctly is indeed compelling. The same argument could be made during Shared Book Approach lessons, where teachers navigate students' interpretation of the words and images in the big book in order to achieve global understanding of the stories.

O'Halloran and Lim (2011) used the term 'multimodal literacy', which can be viewed from two dimensions. One of these dimensions refers to the kinds of skills that are required for students to produce and access information in multimodal texts, echoing Bearne's view. The kinds of texts students are exposed to in and out of school are mostly, or quite possibly, all multimodal. It is difficult to make an argument that monomodal texts exist in this day and age when there is easy access to technology

that create texts and images as single, unified texts. Even a printed page of words would be multimodal, considering the semiotic resources of colour, layout and typography (Kenner, 2004; van Leeuwen, 2006). In the lower primary classrooms in Singapore, reading multimodal big books forms the basis of the STELLAR programme. Hence, the multimodal literacy skills required to read these books become all the more important as the written words contribute only part of the meaning in these books; other semiotic resources such as colour, images and layout contribute to the overall meaning as well.

The other dimension of multimodal literacy refers to the multimodal experience of teaching and learning in classrooms where the teachers' co-deployment of the various semiotic resources in orchestrating their lessons and how an understanding of the affordances and constraints of these semiotic resources would lead to more effective teaching.

'Multimodal literacy' as presented in this thesis will take into consideration these two dimensions - the skills required to process multimodal texts and the semiotic resources used by teachers in constructing classroom experiences based on multimodal big books. Whilst reading multimodal big books, teachers teach these multimodal literacy skills using the semiotic resources within the multimodal books (i.e., images and written words) and those that are 'embodied' through their gestures and speech.

As mentioned in the introduction chapter, there is evidence that the learning outcomes in the 2010 English Language Syllabus in Singapore are making small steps towards multimodal literacy. However, how these are achieved in classrooms has yet to be seen. This study aims to address this gap and document the ways in which teachers engage students in

discussions of multimodal literacy skills during big book reading using a variety of semiotic resources.

2.3 Conclusion

This chapter gives an overview of Halliday's Systemic Functional Linguistics in relation to how it views language as a meaning-making resource based on the three meta-functions of ideational, interpersonal and textual. This is followed by a discussion of how SFL has been used productively in educational research. The complementary employment of SFL and multimodality is also discussed together with its impact on literacy practices in schools.

The next section is the literature review, where a scan of the past research on classroom discourse, dialogism and multimodality will be carried out to identify gaps in the literature.

CHAPTER 3 : LITERATURE REVIEW

3.1 Introduction

This chapter aims to discuss scholarly work relevant to this research beginning with the theoretical constructs of Vygotsky and Bernstein, which play important roles in enriching the discussion throughout the thesis. This is followed by an overview of research on classroom discourse as it relates to dialogism and multimodality, with particular emphasis on the semiotic resources of gesture and space.

3.2 Insights from Vygotsky and Bernstein

Jewitt proposes that “[m]ultimodality, it could be argued, strictly speaking, refers to a field of application rather than a theory” (2009d, p.2). Similarly, Kress (2009) contends that “multimodality as such is not a theory even though it is often used as if it were. The term maps a domain of enquiry” (p. 54). As such, multimodal research has benefitted from insights from various theories. The works of Vygotsky and Bernstein have been particularly productive in SFL and multimodal research. Aspects of their work that are relevant to the present research study are discussed in the following section.

3.2.1 Vygotsky

Wells (1994) observed that both Halliday and Vygotsky have made “important and compatible contributions” (p. 43). The employment of Vygotsky’s theory of mind and SFL in education research has created much interest (e.g. Hasan, 2005; Hasan, 2005 [1992]; Martin, 1999; Williams, 2005). Both theorists place much emphasis on social interactions. For Halliday (Halliday, 2004 [1980]), it is through social interactions that younger children develop cognitively through language –

learning language; learning through language; and learning about language.

Similarly, social interactions are at the heart of Vygotsky's theories. According to Vygotsky, "Every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological) and then inside the child (intrapsychological). This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals." (Vygotsky, 1978, p.57). For children to develop cognitively, they must first participate in social interactions that allow for such developments to proceed. Ideally, these social interactions take place within the child's 'zone of proximal development', defined as "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers" (Vygotsky, 1978, p.86). This guidance or collaboration has been interpreted as scaffolding, a term first used by Wood, Bruner and Ross (1976), described as instances where teachers provide the cognitive support required for students to achieve educational goals in tasks that they would not have otherwise been able to complete on their own (Bruner, 1978). Bruner terms this as a form of "vicarious consciousness" (1986, p. 72) as students adopt their teachers' consciousness to complete the task at hand successfully. These support structures are then gradually removed as students move into independent work (Hammond & Gibbons, 2001).

Whilst most researchers describe scaffolding using the resource of the linguistic mode, Sharpe (2006) recognised how other modes such as gestures and images play important roles in the process of scaffolding. In

her words, “(d)iscourse and multimodal strategies together act as critical mediating tools in students’ learning” (Sharpe, 2006, p. 211). In this regard, the present research will take into consideration the other semiotic resources available to the three teachers when they scaffold students’ learning (see Chapters 6, 7 and 8).

3.2.2 Bernstein

The call to move educational research beyond the pedagogic transmission and acquisition process to a focus on “*forms* of discourse, that is the internal principles of their construction and their social base” has been led by Bernstein (2000, p. 155). There have since been a number of researchers (Christie, 1998, 2002; Kress et al., 2005; O’Halloran, 2007a) who have not only heeded this call but also adopted an SFL and multimodal perspective to their work (Jones, 2008; O’Halloran, 2007a), providing evidence of how Bernstein’s sociological theories and SFL naturally complement each other. The adoption of Bernstein’s theories in this thesis is limited to the concepts of instructional and regulative discourse; framing and classification; and visible and invisible pedagogy.

Bernstein’s concept of instructional and regulative discourse has been explained earlier in Chapter 1. His other notable contributions are the concepts of classification and framing (Bernstein, 1975;1990). Classification refers to “the degree of boundary maintenance between contents” (Bernstein, 1973, p. 205). When clear boundaries exist between the various school subjects, there is strong classification. Weak classification is when the boundaries between the school subjects are fuzzy or unclear, such that the interdisciplinary co-mingling of subjects can be observed. Christie (2002) notes that classification may refer to the boundary between curricular subjects as just described or to the boundary between home and school knowledge. She maintains that both kinds of

classification are weak in early childhood education. Framing is defined as “the degree of control teacher and pupil possess over the selection, sequencing, pacing and evaluation of the knowledge transmitted and received in the pedagogical relationship” (Bernstein 1975, p.88).

Therefore, strong framing occurs when control is with the teacher in what can be described as ‘authoritarian’ style of teaching. Conversely, in weak framing, teachers favour a more open form of control, where students are accorded a degree of control in the way teaching and learning are carried out. Strong classification and strong framing realise visible pedagogies and weak classification and weak framing realise invisible pedagogies (Bernstein, 1975). Bernstein (1996) notes how visible pedagogies privileges the middle-class students as they have been prepared from young to distinguish between school knowledge and home knowledge. Perhaps as a response to this, a movement which has been called ‘compensatory education’ gained traction, where a weakening of classification is coupled with a strengthening or weakening of framing (Whitty, 2010). The argument for such an education model seems attractive at first glance – weakening the boundary between home and school knowledge and weakening the framing of the relationship between teachers and students may result in school knowledge being more accessible to students from all backgrounds. This, unfortunately, goes against Bernstein’s vision of equitable education in schools. His critique of this model of education is apparent in his late work on knowledge structures where he asserts that students need to be introduced to forms of “esoteric knowledge” (Bernstein, 1990, p. 181) by drawing from the existing knowledge that students already have from their home and culture (Bernstein, 1974). This involves teachers applying pedagogical strategies that would facilitate the movement of students from the mundane to the

esoteric knowledge using their everyday knowledge as foundation; for instance, weakening classification in the beginning when introducing a new concept before strengthening the boundaries of school and home knowledge in order for students to gain access to esoteric knowledge while varying between strong and weak framing. Such a situation was described in Pandraud (2011) where experienced teachers during French language lessons alternated between the invisible and visible pedagogical frames in consideration of the individual students they were teaching in meeting their educational goals. The kinds of classification and framing employed by the three teachers in this study will be of interest to the present study. The strong or weak classification of knowledge will point to the ways teachers control the kinds of information or knowledge available to students during the whole class discussion whereas the strong or weak framing will attest to the kind of relationship teachers share with their students. This will have implications on how teachers expand dialogic space by, for example, allowing students to share their home knowledge and forging close relationships with students.

3.3 Classroom discourse

Classroom discourse or “talk that takes place in the course of educational activities” (Mercer & Littleton, 2007, p.1) has been an object of study since the 1940s (Sinclair & Coulthard, 1975). Since then, studies of classroom discourse have flourished with views from various fields; notably anthropology, applied linguistics and psychology (Christie, 2002). The importance of classroom discourse in the business of teaching and learning is undeniable as the “quality of student learning is closely linked to the quality of classroom talk” (Nystrand, 1997, p.29). This is a powerful statement for teachers as the ways in which they navigate classroom interactions have an impact on students’ learning.

There has been a long tradition of research and debate around classroom discourse (Edwards & Westgate, 1994) with an emphasis on the language used by teachers and students, with many studies concluding that teachers and students engage predominantly in the IRE (Initiation-Response-Evaluation) or IRF (Initiation-Response-Feedback) exchange (e.g. Wells, 1993; Edwards & Mercer, 1987; Sinclair & Coulthard, 1975; Vaish, 2008 etc.). Critics of this exchange point to the asymmetrical power relations built into the structure and the resultant lack of democracy in the interaction – it is the teacher who initiates and ends the exchange whilst students are relegated to the role of the responder. With such an exchange structure, it is unsurprising that teachers occupy a larger interactional space than that which they accord to their students – for every turn students make, teachers would make two turns (Walsh, 2011). A further criticism lies in the kinds of questions asked by teachers at the Initiation stage. These are usually ‘display’ questions for which teachers already know the answers (Cazden, 2001) and are thus not ‘authentic’ (Nystrand, 1997). With fixed answers in their minds, the chances of them engaging in lively discussions with students is unlikely – anything deviating from their answers would be evaluated as incorrect. Despite numerous research studies suggesting that the IRF pattern of interaction greatly limits student participation in knowledge construction, this interaction pattern still persists in Western classrooms (Alexander, 2001; Myhill, 2006; Nystrand, 1997). The same also holds true in Singapore. In a study of 51 classrooms in Singapore in the subject English, Vaish (2008) found the IRF to be the most dominant pattern of interaction and this had an impact on the kinds of discussion that were happening during lessons.

Such criticisms have led to the close study of the IRF exchange that cast a positive light on such exchanges. Wells (1993) noted the many ways that the IRF structure are used by teachers; for example, at the end of lessons, IRF exchanges are necessary in ensuring that students have a common knowledge of the learning goals of the lesson. IRF exchanges are also useful tools for teachers in managing whole-class discussions in an orderly fashion to maximally benefit students (Nassaji & Wells, 2000). Cazden (2001) categorised lessons characterised by IRF exchanges as 'traditional' and lessons that give more interaction space to students as 'non-traditional'; concluding that teachers should employ both kinds of lesson structures depending on their educational goals. In her view, IRF exchanges are not necessarily undesirable – there may be occasions where the use of the IRF exchange may be appropriate such as at the end of the lesson, when teachers would like a quick way of assessing students' understanding of the key concepts covered in the particular lesson.

Research on exchange structures persist till today. In their review of classroom discourse in the past 40 years, Howe and Abedin (2013) noted that research publications on exchange structures numbered 15 in the last decade and these included varieties of the IRF structure beyond the basic three-turn exchanges. One of their conclusions propose that scaffolding, that is "calibrated guidance towards target understanding, allowing students to reshape their understanding gradually in response to questions and suggestions from expert partners" (p.341-342), and exploratory talk in whole-class discussions should feature in future research. Arguably, one characteristic of 'calibrated guidance' and exploratory talk could involve ways in which teachers engage students during class discussions - how teachers open the dialogic space for students or otherwise would impact largely on their learning experiences.

3.4 Dialogism and Classroom Discourse

Bakhtin's theories have had far-reaching influence encompassing fields such as "philosophy, semiotics, cultural studies, anthropology, feminist and postcolonial studies, Marxism, ethics and of course, Russian and Slavic studies" (Morris, 2003, p. 1). Bakhtin's theory of dialogism (1981) has been particularly productive in the field of education. This theory is based on the premise that all utterances have links to what has been spoken or written before and at the same time, these utterances anticipate the reaction of the actual, potential or imagined readers or listeners. Speakers or authors work in the present but are influenced by their knowledge of past utterances and their perceptions of the future resulting response to their words, whether spoken or written. It is in this sensitivity to the addressee that dialogic utterances are seen as those which invite others to consider alternative viewpoints or at least acknowledge that there are other viewpoints – what Bakhtin (1981) refers to as 'internally persuasive' (p. 345).

A dichotomy is set between dialogic (or heteroglossic) and monologic (or monoglossic) utterances. The latter is characterised by 'authoritative' utterances (Bakhtin, 1986) where alternative views are not brought to bear; where the speaker or author presents their words as non-negotiable truths to be accepted by their audience without question. This dichotomy, however, presents a seemingly conflicting logic. If all utterances are linked to the past, the present and the perceived future, how is it that some utterances can be considered monologic? Linell (2009) addressed this issue by contending that there are "monological practices in our dialogically conceived world" (p. 408). This can be taken to mean that instead of binary oppositions with monologic utterances at one end and dialogic utterances at the other end, we can visualise the scale to be

on a plane of increasing monologic tendencies. At the end of this scale, one would expect to find utterances of generally accepted truths such as ‘the sun rises in the east and sets in the west’ although this would still not be purely monologic given that all utterances are dialogic.

When brought into the field of education, dialogism offers insights on how teachers use monologic and dialogic utterances in achieving their learning outcomes. O’Connor and Michaels (2007) propose that the identification of monologic and dialogic utterances should take into account the power relations between the students and teachers, what they have referred to as ‘ideological stance’. When discussing dialogism in this sense, they suggest capitalising the first letters of these terms– Dialogic and Monologic. A teacher adopting the Dialogic stance would be willing to consider students’ views during classroom interactions while one who adopts a Monological stance would tend to discourage student input. This is distinguished from the other sense of these terms which is the structural difference that exists linguistically and interactionally in the monologic and dialogic utterances. The authors acknowledge their allusion to Gee’s (1990) big-D ‘Discourse’ in Dialogic/Monologic and small-D ‘discourse’ in monologic/dialogic, putting forth a continuum of ideological stance and of form respectively.

The two dimensions, ideological stance and form, forwarded by O’Connor and Michaels (2007) resonate with the work of Martin and White (2005) on the Appraisal theory, specifically the system of Engagement. This system takes into account the structure of language and the ideological stance, evident in the first line of Martin and White’s chapter on Engagement: “This chapter is concerned with the linguistic resources by which speakers/writers adopt a stance towards the value positions being referenced by the text and with respect to those they address” (Martin &

White, 2005, p. 92). Martin and White use the term 'heteroglossic', a nod to Bakhtin's concept of heteroglossia, to mean utterances that present multiple views. This is contrasted with 'monoglossic' utterances, which do not *explicitly* acknowledge past views although these utterances must be based on some earlier reference or crafted from a communicative backdrop of alternative, possibly competing views. At the same time, the monoglossic utterance fails to invite alternative views. Consequently, in Martin and White's conception of the monoglossic utterance, there is an underlying assumption that all utterances are dialogic. An utterance is considered monoglossic, at least at the time that it is produced, when it is formulated as a bare assertion. In Martin and White's example of bare assertion, "The bankers have been greedy" (2005, p.100), there is no overt reference to alternative views (e.g., According to XXX, the bankers have been greedy) and no invitation to solicit the views of the addressees (e.g., The bankers have been greedy, have they?).

The study of Bakhtin's dialogism has been influential in the field of education, specifically classroom discourse, and has been variously called 'dialogic instruction', 'dialogic enquiry' and 'dialogic teaching' (Skidmore, 2016, p. 98). 'Dialogic instruction' (Nystrand, 1997) underscores the importance of dialogic patterns of interaction between teachers and students in students' learning. These dialogic patterns of interaction include the use of authentic questions and the inclusion of students' input into the classroom discourse. Such interaction patterns are possible due to the positioning of students as co-creators of knowledge in the classroom, increasing student participation and ultimately, student learning. While Nystrand worked with coding schedules of real-time observations, Wells' (1999) study in Dialogic Inquiry involved analysis of classroom transcripts and therefore, could elucidate moment by moment classroom interactions

that are dialogic or otherwise. One of the highlights of Wells' work is the detailed analysis of the IRF triadic structure of teacher-student interaction. The last move, F for feedback, could be re-configured to extend students' responses by asking to students to explain, justify, clarify, or exemplify their answers. This increases student participation with interaction patterns moving away from the typical IRF configuration that is monologic in nature. Such moves by teachers are also documented in the work of Alexander in classrooms where interactions are described to be dialogic (2001, 2004). Dialogic exchanges happen when students are viewed as active agents in the building of knowledge, echoing Nystrand's (1997) findings as discussed earlier. Alexander's work differs from the preceding works of Nystrand and Wells as it was a large-scale study targeted at primary school education that spanned five countries – India, France, Russia, England and United States. Thus, valuable cross-cultural comparisons could be made of the kinds of teacher-student classroom discourse occurring in each country. His findings confirm that the IRF type of classroom interaction is the most dominant pattern in all five countries.

In Singapore, Lee's intervention research on promoting dialogic interactions in a Secondary Three classroom shows how a teacher was able to effect change in her interaction patterns with students, moving towards dialogically open interactions with her students (2016). Through close collaboration with the researcher, the teacher was able to increase the percentage of exploratory talk during the intervention observation phase of the research, allowing for a more democratic and open discussion with her students.

3.5 Multimodality and classroom discourse

The change in focus in classroom discourse research over time is apparent with the recent turn to multimodal semiotics (Jocuns, 2012) and functional linguistics (Christie, 2002).

Attention has mostly been focussed on only language as the mode of communication; although there have been studies that recognise “paralinguistic” or non-verbal forms of communication which are described as peripheral to the dominant, linguistic mode. This implicitly suggests that language is the basis for such communication; that non-verbal forms of communication serve only to support language. Within this traditional framework, “theories of communication were identical to all intents and purposes with theories of language” (Kress et al, 2001, p.2). A crucial limitation of this framework is the lack of acknowledgement to the materiality of the different semiotic resources. The semiotic resources of image and language, whether spoken or written, are configured differently and consequently, have distinct ways of conveying significance. The element occupying the central position in an image can be considered most important while in speech or writing, a similar significance could be achieved through the first clause in the linear sequence (Kress et al, 2001). Another limitation is the inability to take into consideration that which is silent - the gestures made by the teacher, the images in picture books, the posture of the teacher all contribute to the meaning of being and experiencing the classroom as much as the semiotic resources of the spoken and written word. These limitations highlight the importance of multimodal research in understanding how teaching and learning happen in classrooms.

To this end, research into classroom discourse since the millennium has taken these other semiotic resources into consideration in the tradition of social semiotics. In the study of Science and English classrooms, Kress et al. (2001) and Kress et al. (2005) made the connection between language and other semiotic resources such as gestures and images, proposing that teachers and students select a combination of these resources in order to communicate in the classrooms. Whilst explaining the blood circulatory system, a Science teacher in their study used a 3D model to show the parts of the system while gesturing the direction of the flow of blood. The orchestration of at least three semiotic resources was at play here: spoken language, gesture and image (i.e., the 3D model). The spoken language functioned to name the parts of the blood circulatory system while explaining how blood flows through this system. The teacher used his gestures to show students the direction of blood flow but also to anchor his spoken language when he named the parts of the system to the 3D model. The image in the form of the 3D model worked to make the abstract concepts introduced tangible for students. During an English lesson, Kress et al. (2005) observed how a teacher used the same three modes of spoken language, gesture and image to co-construct a visual representation of emotions in the play 'The Crucible' in the form of a graph. While interacting with students, the teacher drew a graph with 'hysteria' as the y-axis and Acts 1 to 4 as discrete units on the x-axis, transforming mode of spoken language to the visual mode while gesturing in the act of writing on the white board but also pointing at the different points of the graph where the emotions were present in the various Acts. From these studies, it can be seen that the way knowledge is represented through the semiotic resources selected by teachers in classrooms is integral to the kind of learning that takes place. Kress et al. (2005)

concluded that “talk alone, or even talk supplemented by writing” (p. 169) do not provide a comprehensive account of what happens in classrooms. The argument that knowledge is represented not only in spoken or written language but also in tandem with other semiotic resources gained much traction with these landmark studies on multimodal teaching and learning.

Among these semiotic resources, research on gesture and spoken language has been productive, mostly building from the works of Ekman and Friesen (1969), McNeill (1992, 2005) and Kendon (1972, 1983). When McNeill pronounced that gestures are “an integral part of language as much as are words, phrases, and sentences” (1992, p.2), he paved the way for the study of the two semiotic resources of gestures and spoken language. This view aligns with the basic tenet of multimodality in recognising the importance of other semiotic resources besides language. Similarly, Kendon (2004) stressed the importance of gestures but questioned the different materiality between spoken language and gesture, pointing out that these are two systems - speech proceeds in a temporal sequence whereas gesture is “expressive because it is depictive or pantomimic” (p. 2). In multimodal terms, spoken language and gestures are two different semiotic resources since they contribute to meaning-making in different ways.

Although McNeills’ work centres around communication in general, his ideas greatly influenced research on gestures and speech in classrooms (e.g. Alibali & Nathan, 2012; Edwards, 2009; Holler & Wilkin, 2009; Radford, 2009), especially his typology of gestures of which there are four: deictic (pointing), iconic, metaphoric and beat (McNeill, 1992). Deictic gestures, or pointing gestures, refer to movements that function to point to a particular object using the finger(s), hand, or any other extendable body part such as nose, leg and chin; iconic gestures are

those that reflect aspects of the concrete objects or events conveyed through speech, which could mean the same or complement that of speech ; metaphoric gestures are gestures of abstract concepts that are two-fold in meaning - the Base refers to the concrete entity of the gesture and the Referent refers to the concept conveyed by the gesture (McNeill, 1992, p. 79-80). These gestures are identified when co-occurring with speech and in this, there is a departure from theories of multimodality. While McNeill acknowledges the importance of the other semiotic resources (see earlier paragraph), his typology of gestures is “formulated only in coordination with the speech content” (McNeill, 1992, p. 76). In multimodality, gestures may or may not occur with speech. When gestures exist without speech, they have the potential to mean the same as speech does - consider the gesture commonly used by teachers of touching the index finger to the lips to mean ‘quiet’. This can be communicated without the need to say it in words.

3.5.1 Gestures in SFL tradition

Early work on gestures in the social semiotic tradition focuses on theorising gestures. Martinec (2000, 2001, 2004), taking the cue from the work of Kress and van Leeuwen (1996/2006) in creating system networks for images, similarly developed system networks for gestures according to Halliday’s three metafunctions – ideational, interpersonal and textual. Martinec (2000) placed gestures, or actions, in three categories – presenting action, representing action and indexical action. Presenting action is not a representation of meaning in that it can only have meaning in the immediate context - it communicates non-representational interpersonal meanings such as facial expressions and use of body in space. Representing action functions as a means of representation and so can have meaning in a context removed from the present. The example of

the index finger placed on the lips presented above is an example of representing action. Both the presenting and representing action can occur with or without speech. Indexical action, however, must coincide with speech – one can only understand its full meaning by “accessing the second order context which is represented simultaneously in indexical action and concurrent speech” (Martinec, 2000, p. 244).

Each of these three categories of gestures has the potential to mean interpersonally (Martinec, 2001). For instance, in presenting action, the interpersonal resources at play are engagement, modality and affect. Engagement is determined by the distance and angle of bodies, following the work of Hall (1968). Modality marks the willingness or unwillingness and the tentativeness or assuredness of the performance of an activity in presenting action, realised respectively by body angles, either forward or backward; and the tension of muscles – either tensed or relaxed. Affect in presenting action is realised in facial expressions.

In considering Martinec’s system network for gestures for the present study, two areas of concern surfaced – difficulty in observing tension of muscles and the development of the theory around characters in movies or sitcoms. While body angles are easily observed, it is less so in the tension of muscles as shown in the scene from a Bruce Lee movie used by Martinec to highlight the difference in muscle tension between two characters. The character that was described as ‘assured’, realised by relaxed muscles, was portrayed with his right fist clenched at his side. This implies some tension of the muscles and could thus be analysed as ‘tentative’ instead. This disparity puts into question the difficulty in observing muscle tension and the subjective nature of such an observation.

Martinec, in developing his theories on gestures, based his work mostly on characters in movies or sitcoms. While this may mimic real-life situations, the applicability to educational contexts may be questionable due to the complex nature of teaching and learning and teacher-student relations. An instance of this would be a teacher's use of the pointer to point at certain parts of a text; the act of which is likely to be pedagogically motivated. In doing so, a certain amount of tension in the hand or finger muscles is required; relaxing these muscles would cause the pointer to point in an unwieldy fashion. The tensing of the muscles during this activity may serve a practical objective rather than to show tentativeness.

In ascertaining the distance and body angles, multiple video recorders at different angles are required to capture the participants. Further, the tension of muscles and facial expressions require additional close-up shots of the teachers' faces and body parts. Given the limitation of resources for this research study, it was not feasible to have more than one video recorder in the classrooms. Therefore, the data of the present study does not allow for the close observation of the angle of bodies, tension of muscles or facial expressions, rendering the data unsuitable to be analysed by the system networks proposed by Martinec for gestures as interpersonal resources.

Hood (2011) developed a system network of gestures based on the Appraisal system for lessons conducted in higher education. Hood's study marks an important development for SF-MDA. Earlier works on gestures in classrooms were in the social semiotic perspective (Kress et al., 2005; Kress et al., 2001; Multimodal Analysis Lab, 2013) and therefore, the development of a system network on gestures was deemed irrelevant. Hood's work shows potential in the development of system networks that could theoretically be applied in any classroom, although the present

research aims to verify the reach of its applicability in a different context. Where studies were based on the SF-MDA perspective, these were not in the educational context as shown in the discussion of Martinec's work earlier. This is more suited to the aims of this research study and will be discussed further in Section 4.4.2.

3.5.2 Space as a semiotic resource in the classroom

Space is one of the semiotic resources identified in the Kress et al. (2005) study. In their study of English classrooms, they showed how space in the classroom can be considered as a semiotic resource in making meaning. One of the ways classroom space makes meaning is in the way in which the arrangement of furniture in the various classrooms. This is determined by the kind of student-teacher social and pedagogic relations the teacher subscribes to in delivering his or her lessons and subsequently continues to influence them. For example, in one classroom described by Kress et al., the teacher, Mr John, arranged students' desks in an arc in three rows and two columns and these were clustered such that four students were seated in a group, facing the front. The teacher's desk was positioned in front-centre of the classroom. The grouping of the students in fours suggested that student discussions were part of the pedagogical routine in the classroom. The arrangement of the students' desks in an arc suggested that the teacher would teach from the front with all of the students in full view. However, the constant movements of the teacher from the front to the side of the classroom in an arc meant that students would have to move their bodies and/or necks in order to maintain engagement with the teacher through their gaze in following their teachers' movements. As such, how space is configured in the classroom has pedagogical implications, which may not match the teacher's apparent intention.

The findings from Kress et al. (2005) paved the way for other spatial research in classrooms (e.g. Gana, Stathopoulou, & Chaviaris, 2015; Lim et al., 2012). In Singapore, Lim, O'Halloran and Podlasov (2012), in a study of two General Paper teachers at a local junior college, posit that the different sections of the classroom could be configured and re-configured according to the phase of the lesson, the positioning in relation to students, the movement of the teachers and the teacher resources available to teachers within the space in the classroom such as the whiteboard or desktop computers, realising the particular pedagogies adopted by them.

3.5.3 Multimodal research in the local context

The body of research in multimodality has shown increasing interest locally, especially in the school subjects Science and English. In Science, research has been focussed on whether students' disciplinary-specific literacy skills including consumption and production of multimodal representations are being developed alongside the mastery of scientific knowledge (Tang, 2016; Tang, Ho, & Putra, 2016); the development of an integrative framework for the analysis of scientific multimodal representations in middle school science (Tang, Delgado, & Moje, 2014) and the evaluation of students' use of technology in composing multimodal representations in learning tasks in lower secondary Science classrooms (Towndrow, Brudvik, & Natarajan, 2009).

Recent research in the school subject English has been geared towards literacies related to technology variously called multimedia literacy, new literacies and multimodal literacies. This is not surprising given the government's push for information and communication technology or ICT enabled lessons in all classrooms as articulated in the third Masterplan for ICT in education (Infocomm Media Development

Authority, 2016b) and the high computer ownership rate in Singaporean households at 86% in 2014 (Infocomm Media Development Authority, 2016a) such that most students are exposed to ICT in schools and at home.

Despite the focus on the use of ICT in schools, the role of the teacher in classrooms is not to be seen as diminished (MOE, 2016). Against the backdrop of the implementation of ICT initiatives, the decision to use big books as opposed to digital books in the SBA phase of STELLAR as described in Section 1.2.7 is testament to the central role teachers play in the lower primary English language classrooms in mediating students' understanding of the stories. The teacher's presence is pivotal in navigating students through the pages of the multimodal big book. The spontaneous, immediate scaffolding provided by teachers as they guide students through the complex, multimodal pages of the big book far surpasses any experience that digital books could offer.

Research on big book reading in the lower primary is scant in the local context. Sripathy (1998) reported that the teachers in her local study on the SBA adopted convergent interaction patterns described as "the teachers' emphasis on correct answer, pupil participation upon nomination, focus on checking of pupil understanding through closed questioning, the ignoring of spontaneous pupil responses and the continued questioning till the expected answer is arrived at" (p. 280).

This research, therefore, aims to address the lack of research in the local context on SBA lessons and use a multimodal approach in examining how dialogic space is managed and whether such convergent interaction patterns as reported by Sripathy are present in this study.

3.6 Conclusion

The first part of this chapter focuses on the theories of Vygotsky and Bernstein and how these might be usefully applied in the present research.

Following this, the discussion then centres around classroom discourse and how it relates to dialogism and multimodality, both internationally and locally. It is found that there is a lack of research in multimodal classroom discourse in SBA lessons and the study of dialogic space in Singapore schools, presenting an opportunity for this research study to contribute to the literature.

The next chapter discusses the ontological, epistemological and the research methodology adopted in this research. This is followed by a description of how the data will be analysed using the different frameworks.

CHAPTER 4 : METHODOLOGY

4.1 Introduction

In carrying out a research study, basic considerations such as the research approach, research methodology and type of analysis carried out are important to ensure a consistent and mutually informing research design. This chapter outlines these considerations and offers explanations and justifications for the decisions made in this regard.

4.2 Ontological, epistemological and methodological considerations

Many scholars have asserted the interconnectedness of ontology, epistemology and methodology in carrying out a research study (e.g., Guba & Lincoln, 1994; Morgan & Smircich, 1980). Ontology is concerned with the nature of social entities (Bryman, 2004). Social entities can be viewed objectively in that they “have a reality external to social actors” (Bryman, 2012, p. 32). Alternatively, social entities can be viewed as social actors who actively construct social phenomena and their meanings (Bryman, 2012). These two views are called objectivism; and constructionism or constructivism respectively in the literature. Objectivism views the actors as experiencing an objective reality independent of themselves while constructionism views the actors as constructing the experience in their own individual ways. In the words of Bryman, constructionism “asserts that social phenomena and their meanings are continually being accomplished by social actors” (2004, p.17). Due to the nature of this research where teachers and students are viewed as active agents of their teaching and learning, this research aligns with the latter view.

Epistemology has to do with “what is (or should be) regarded as acceptable knowledge in a discipline” (Bryman, 2012, p. 27) while Guba and Lincoln (1994) defines epistemology as the nature of relationship between the researcher and what can be known (p, 110). Following Bryman (2012), there are three epistemological stances: positivism, interpretivism and realism. Positivism and realism share the belief that a natural sciences approach to research can be usefully applied to the study of the social world and that there is an “external reality to which scientists direct their attention” (Bryman, 2012, p. 29). These stances conflict with constructionism and therefore cannot be usefully applied to the current research study. The discussion now turns to interpretivism, the stance adopted in this research.

Interpretivism “respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action” (Bryman, 2004, p. 30). In acknowledging the subjective nature of social action, research of this kind is in direct opposition to research that has been labelled ‘scientific’ which aims to provide ‘objective’ explanations of human behaviour. Unearthing single ‘truths’ are far from the aims of research which is oriented to interpretivism; instead, ‘truth’ is presented as the researcher’s interpretation of the social actions anchored in his/her beliefs, values and experiences. Whilst this might be viewed as a weakness, there is the view that objectivity in qualitative research may be an impossible or even undesirable goal (e.g. Letherby, Scott, & Williams, 2013). However, if one were to accept the subjectivity of qualitative research, how then do researchers of this methodology have any claim for knowledge? The inevitable tension between subjectivity and the claim for knowledge has been addressed by many (e.g. Hammersley, 2008, 2011; Letherby et al.,

2013). As a response to this, Letherby (2013) proposes 'theorised subjectivity' as a defence for both subjectivity and objectivity. In her words, "theorised subjectivity acknowledges that research is a subjective, power-laden, emotional, embodied experience but does not see this as a disadvantage, just as how it is" (Letherby, 2013, p. 80). This is, of course, not a call for researchers to be epistemologically careless in their production of knowledge; instead, Letherby suggests adopting a critical stance in acknowledging our subjectivities and understanding that "what we do affects what we get" (2013, p. 154). Theorised subjectivity starts with a position that recognises the subjective position of the researcher to begin to understand how this affects the research process, such that "biased sources' can themselves result in useful data" (Letherby, 2003) whilst still pursuing the notion of objectivity as these are inextricably entwined (Letherby, 2003). This is the position taken up in the current study.

4.3 Research methodology

The research approach adopted would have to be aligned with the ontological and epistemological stances of constructionism and interpretivism. This section outlines the theoretical underpinnings, data collection processes and the resultant interpretation of data of the current study.

4.3.1 Methodological approach

The approach adopted in the present research to data collection and data analysis can be characterised as a qualitative case study.

Case study research is defined by Yin as "an empirical inquiry that investigates a contemporary phenomenon in-depth and within its real-life context, especially when the boundaries between phenomenon and

context are not clearly evident” (2009, p.18). The decision to use this research design is due to its potential to generate a thick description of the video data set in the real-life context of three classrooms, which is essential in answering the ‘how’ research questions of this research study (Bryman, 2004). Nisbet and Watt (1984) quoted in Cohen, Manion and Morrison (2007, p. 253) describe case study as a “specific instance that is frequently designed to illustrate a more general principle”; the specific instance being a “bounded system” (Cohen, Manion and Morrison, 2007, p. 253). The bounded system in this study rests in the particularity of the context – three lower primary classrooms in Singapore where the Shared Book Approach 1 (see Section Figure 1.1: Phases of STELLAR) lessons were delivered as part of the STELLAR programme.

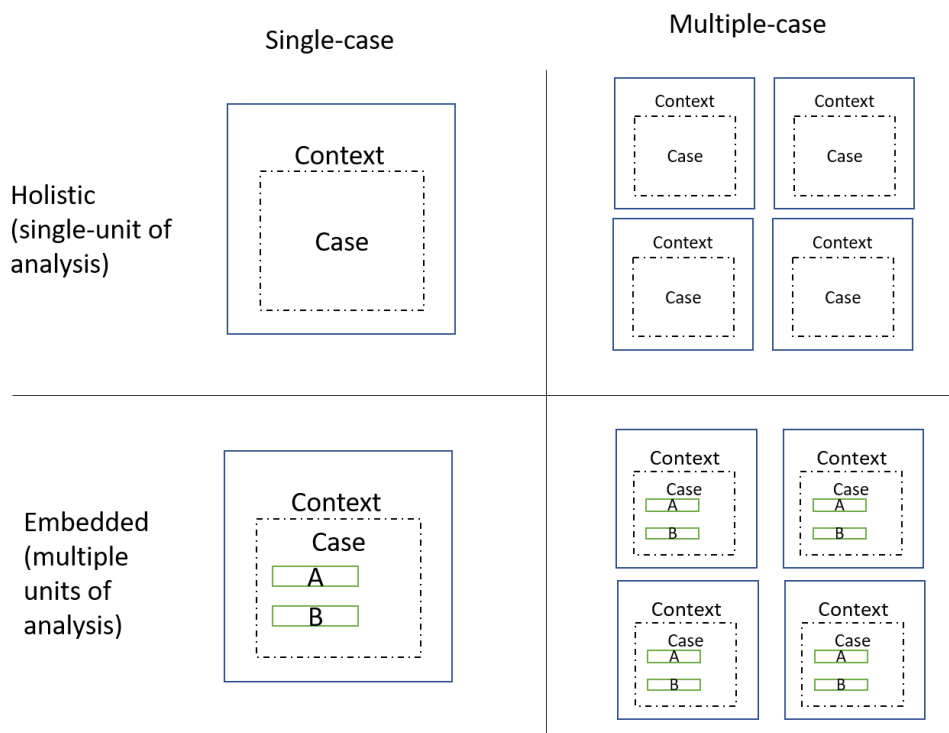
Yin (2009) proposes that there are four case study designs: the holistic single-case, the embedded single-case, the holistic multiple-case and the embedded multiple-case (see Figure 4.1). A single-case study is where there is only one case whereas a multiple-case study involves more than one case (Bryman, 2004). What is considered a case can be quite a challenge. Yin (2009) refers to the case as the unit of analysis of the case study, noting that this can be an individual or “decisions, programs, the implementation process, and organizational change” (p.29). The case in this study can be described as the whole-class teacher-student interactions in classrooms. Within this case, the three classrooms are the embedded case-studies – the overriding case is the same for the three classrooms, which make up the sub-units of the case. As such, the case study design of this study can be described as the embedded single-case. The embedded case studies have been selected using the framework of the lesson genres and microgenres (Christie, 2002) as described in

Chapter 5 to ensure that the context and the case are similar across all three classrooms.

Yin (2009, p.48) proposes five types of the single-case case study design: the critical case to test a well-formulated theory, the extreme or unique case to capture a rare occurrence of a phenomenon, the representative or typical case to capture the conditions of an ordinary situation, the revelatory case where researchers gain access to previously inaccessible data and the longitudinal case, where researchers investigate a phenomenon at multiple points in time. The representative or typical embedded single-case is adopted in this research study “to capture the circumstances and conditions of an everyday or commonplace situation” (Yin, 2009, p. 48) within the parameters of the context as outline earlier. This is observed in the data collection process described in Section 4.3.5.

Case study research can be either qualitative or quantitative in orientation, although it is often associated to qualitative research such as participant observation and interviews. Using these qualitative methods, it is possible to carry out “intensive detailed examination of the case” (Bryman, 2004, p.49). Further, Bryman (2004) noted that qualitative research has three other features: its inductive nature where theory is generated from research; the interpretivist epistemological position where the understanding of the social world is through its participants; and the constructionist ontological position where social beings actively construct meanings in their social world (see earlier discussion on epistemology and ontology in Section 4.2). It is for these reasons that the present research study employs qualitative methods.

Figure 4.1: Four basic designs for case studies [reproduced from Yin (2009, p. 46)]



Key: A & B represent the sub-units of the case

Qualitative research as a general phenomenon is particularly problematic to define. Bryman (2012) defined it as “a research strategy that emphasized words rather than quantification in the analysis and collection of data” (p. 36) although elsewhere, he noted that qualitative and quantitative research “both treat frequency as a springboard for analysis” (p. 409) with qualitative research using terms like ‘often’ and ‘most’. Yet further into his writing, Bryman contemplated how qualitative researchers do sometimes engage in quantitative analysis of their data, mainly as a response to the criticism of the anecdotal nature of their analysis (2012, p. 624). Bryman’s propositions attest to the diversity in what could be considered as qualitative research – from a ‘pure’ form where numbers have no place to a form where analysis is quantified, albeit to a limited extent.

Apart from the analysis stage, this diversity encompasses other areas of qualitative research as well. For example, Bryman noted the varied nature of research strategies that have been labelled as 'qualitative' for which he identified as "ethnography/ participant observation, qualitative interviewing, focus groups, language-based approaches to the collection of qualitative data, such as discourse analysis and conversation analysis; and the collection and qualitative analysis of texts and documents" (2012, p. 383). This view is echoed by Silverman (1993) in that there are many research methods and approaches that have been called 'qualitative' that differ greatly from each other. The situation is made more complex as researchers often adopt multiple strategies in conducting their qualitative research although Silverman (2005) expressed caution over such an effort because of the possible theoretical mismatch and hence, incompatibility between the strategies, strengthening the argument that these strategies are indeed different.

The discussion above reveals the difficulty of assigning a constant and stable definition of qualitative research and perhaps an endeavour that is not necessary at this point of time. The fluid and dynamic nature of qualitative research should perhaps be celebrated instead of regarded with scepticism.

There is certainly much value in looking at the particular with a small number of cases in order to generate rich data. Silverman (2011) attested to the strength of qualitative research in using "naturally occurring data to find the sequences ('how') in which participants' meanings ('what') are deployed...it can then ...move on to answer 'why' questions by examining the wider contexts in which the phenomenon arises" (p. 17). It is this process of answering the 'how' and 'what' questions that the researcher's subjectivity could usefully come into play. A deep

understanding of the research context is likely to put the researcher at an advantage in data analysis, as discussed in section 4.3.2.

4.3.2 Locating the researcher in the research

The interest in pursuing a research agenda in primary education stems from my years of experience as a lower primary teacher. Big book reading had been the focus of lower primary English literacy classes even before STELLAR came into existence, although with comparatively less structure. I understood the importance of the pictures in telling the story although I did not know at the time that there was a growing scholarship on multimodal classroom research in the UK (by Kress, Jewitt etc.) and Australia (by Lemke, Unsworth, Painter etc.) inspired by the work of Halliday, my introduction to multimodality was incidental – I signed up for a postgraduate course on grammar, expecting to be taught traditional grammar rules to be applied to my teaching. Instead, it was an eye-opening experience which viewed grammar as a system of choice and which could be applied to other modes in our daily communicative events. This knowledge was later applied when the opportunity to work in a research project in the National Institute of Education based on Halliday's Systemic Functional Linguistics (SFL) presented itself.

The data used for this research study comes from another project that I was involved in. Although the focus of this project was different to the aims of this research study, my continued engagement with the data allowed me to form preliminary approaches that had greatly influenced the decisions I made in designing the research. This, coupled with the experience gained as a lower primary school teacher, resulted in a natural progression to the undertaking of my own research on multimodality and SFL in lower primary classrooms with a focus on big book reading. In recognising that my interpretation of the data is influenced by my prior

experiences and therefore subjective, I take the view that this does not lead to contamination of the analysis; rather, the depth and complexities of the context can be brought to the fore, resulting in a rich analysis.

4.3.3 Source of data

The data used for this research study comes from a project “Curriculum Implementation in Early Primary Schooling in Singapore” funded by the Centre for Research in Pedagogy and Practice, National Institute of Singapore for which I was a part of the research team. The purpose of this research was to investigate the policy-pedagogy links in Primary One and Two classrooms in the Singapore educational context and the factors affecting policy work at the levels of class, school, zone and nationally. This is markedly different from the purposes of the present research, which is to investigate how teachers manage dialogic space in promoting student engagement during their big book reading lessons and how a multimodal approach can contribute to an understanding of dialogic space.

The funded project consists of two components – the case study component and the lesson observation component. The data collected for the case study component include field notes during lesson observations over a period of a total of eight weeks and interviews with school officials, teachers and parents from two schools. As this data does not form part of the current research study, any reference made to the funded project from this point onwards is to be taken to mean the lesson observation component. The data for this component comprise lesson observations, audio recordings and video recordings of a total of eighty lessons from ten schools, of which nineteen were for the subject English. Each lesson lasted about an hour each. Other data collected in this component are interviews with selected teachers, photographs of classrooms and student

work. The details of the nineteen English lessons are shown in Table 4.1. As the observations were carried out on a voluntary basis, the number of actual observations carried out in the schools varied. Two schools offered only one observation each while another school offered three observations.

Table 4.1: Description of videoed English lessons in terms of phases in STELLAR

School	Level	Phase in STELLAR
S1	P1	LEA
	P2	SBA2
S2	P1	SBA2
S3	P1	LEA
	P2	SBA2
S4	P1	LEA
	P2	SBA1
S5	P1	LEA
	P2	SBA2
S6	P2	SBA2
S7	P1	SBA1
	P2	SBA2
S8	P1	SBA2
	P2	LEA
S9	P1	SBA1
	P2	SBA1
	P1	LEA
S10	P1	SBA2
	P2	SBA1

Note: The phases of STELLAR are explained in Figure 1.1. P1 and P2 refer to the levels of lower primary i.e., Primary 1 and Primary 2. The ten schools have been assigned pseudonyms from S1 to S10.

These lessons were video-taped in naturalistic settings in that teachers had not been briefed about the specific purposes of the project; hence minimising the possibility of teachers carrying out their lessons to meet the project's objectives. Although they were free to choose any English lesson for the observations, all the teachers chose to be observed during STELLAR lessons.

Only the video and audio data and the accompanying transcripts form the primary data of the present research. Although I did not transcribe the lessons from the audio and video recordings, I was involved in checking the transcripts for all the nineteen lessons to ensure accuracy. Further work on the transcripts was also required for the current research since these had to be presented differently in order to account for the multimodal analysis of the data.

4.3.3.1 Issues with secondary analysis of data

The decision to perform secondary analysis of the video data was made with careful consideration of the fit between the research focus of the present study and the available video data. The video recordings from the funded project provide rich data that could be used for a multitude of purposes. The video data was of high quality visually which allowed for the analysis of multimodality to be carried out with ease. Where the audio was unclear in the video, the audio recordings provided a secondary source to rely on during the transcribing process. It was also important to ensure that the aims of the primary investigators in the funded project are different from the current study in order to establish that it is independent and original. Whilst the primary investigators analysed the data at the macro-level of curriculum implementation, the focus of this study is on the micro-analysis of the multimodal interaction between teachers and students.

Having ascertained the quality of the video data and the fit with my research focus, the advantage of using this secondary data became clear when it emerged that access to schools was proving to be a long and difficult process. Consent was obtained from one school but this was given for a very limited number of lessons. Secondary analysis of qualitative data may raise ethical issues due to the sensitive nature of the data (Bryman, 2012). This is especially so for video data due to ethical problems arising from the inherent difficulty in maintaining the anonymity of participants. However, this is not an issue in the present research. Being part of the research team of the original project, consent has been obtained from the participants for team members to access the data, following the stringent ethical procedures of the research centre. Part of the consent involves the anonymity of the participants and this is upheld with utmost care. Participants were given pseudo names in the transcripts and images of participants used in this thesis are outlined and/or blurred to protect their identity. The University of Nottingham's research ethics committee were consulted and gave permission for the data to be used for this study.

Besides the ethical issue, Hammersley (1997) pointed out the potential problem arising from the secondary analysis of qualitative data due to the analyst's distance from the site in which the data had been collected. This could lead to difficulties in analysis as the analyst has little understanding of its context. In the present study, my experience as a teacher in lower primary literacy classrooms (see Section 4.3.2) gives me an in-depth understanding of how literacy lessons are conducted or expected to be conducted and this, I would argue, places me in a privileged position as opposed to someone who has not had such experience.

4.3.4 Research contexts and participants

4.3.4.1 *The schools*

Most primary schools in Singapore are government schools. Private schools usually operate within international schools and follow the curriculum of their respective countries. These schools are mainly for the expatriate community in Singapore.

Government schools in Singapore are divided geographically into four zones – North, South, East and West. Schools within a zone, among other things, collaborate on teaching resources, hold sharing sessions for teachers to share their practices and set common tests or examinations. Data collection for the funded project was carried out in ten primary schools within a certain zone. These schools were selected based on practical reasons. The first ten schools to respond positively were selected as there was a need to keep within the timeline proposed for the data collection phase of the project.

There is little variation between primary schools in Singapore. All primary schools are required to follow the mandated curriculum as set by MOE. Special niche programmes delivered during co-curricular activities vary from one school to another but these do not affect the teaching of curricular subjects such as English. All primary schools also offer the Learning Support Programme for the subjects English and Mathematics. This is a pull-out programme for academically weak pupils who are identified at the start of Primary 1 based on the results of an MOE-administered written test.

4.3.4.2 *The teachers*

All teachers who teach in government schools in Singapore receive pre-service training at the National Institute of Education. Teachers who

teach the subject English at primary levels receive additional training in the teaching of STELLAR lessons.

4.3.5 Data collection procedures

Data collection for the funded project was carried out in the ten schools within a term (about ten weeks). This is done in the naturalistic setting of each classroom where participants were observed in their daily activities in their usual environment, characteristic of the representative or typical embedded single-case case study (see 4.3.1). The researchers were silent observers during the video recordings of the lesson, limiting to a certain extent the possibility of tainting the data collected. This method of data collection usually produces data that is most suitably analysed according to the interpretivism paradigm, as noted in Section 4.2.

A video camera was set up at the back of the classroom on a tripod, set at a wide angle to capture a wide view of the teaching and learning in classrooms. An audio recorder was attached to the teachers in order to record their speech. Due to the angle of the video camera, the teachers were recorded facing the camera and the students were seen only from the back. This fits well with this research as the focus is on teachers.

During the lessons, the researchers sat at the back of the classrooms occasionally checking on the progress of the video recording and took field notes should there be events that occurred which could not be captured through the video recording⁸.

4.3.6 Selection of data

Due to the laborious nature of multimodal video analysis, selection of a subset of video data was deemed necessary. This was carried out in

⁸ Full data collection protocols can be found at <http://hdl.handle.net/10497/4453>

systematic steps. First, all the videos were viewed and general descriptions were tagged to the video clips of the different lessons. This gave the researcher a wide view of the types of lessons conducted by the teachers as seen in Table 4.1 above. Thirteen lessons were based on the Shared Book Approach (SBA) using Big Books while the rest of the lessons were at the second phase of STELLAR which is the LEA. Upon further analysis, it was found that these SBA lessons were at different stages – the introductory lesson, also known as SBA1 or the follow-up lesson, SBA 2. Lessons at the SBA 1 stage were chosen for the practical reason that references to earlier readings of the Big Book were made in lessons at the SBA 2 stages. Analysing the data at SBA 2 stage would be problematic as the researcher had no access to the earlier lessons. Five lessons were at the SBA 1 stage. In three of these lessons, the Big Books used were of the narrative genre whilst in the remaining two lessons, the Big Books were of the factual genre. A decision was then made to select the video data of lessons that used Big Books of the narrative genre. Further narrowing of the data will be discussed in Chapter 5, where lessons are analysed for micro-genres.

4.4 Data analysis

Video data offers researchers studying the multimodal phenomena rich possibilities. In fact, one could argue that the rise in multimodal research is due to the ease in capturing and storing video data (Bezemer & Jewitt, 2010) and in more recent times, analysing such video data.

This section describes the analytical frameworks used for data analysis in this study. The framework for analysing curriculum macrogenres and genres will be described first followed by the speech and

gesture analysis. Before this, a quote from Halliday seems fitting at this juncture:

“A discourse analysis that is not based on grammar is not an analysis at all, but simply a running commentary on a text: either an appeal has to be made to some set of non-linguistic conventions, or to some linguistic features that are trivial enough to be accessible without a grammar, like the number of words per sentence (even the objectivity of these is often illusory); or else the exercise remains a private one in which one explanation is as good as another. A text is a semantic unit, not a grammatical one. But meanings are realised through wordings; and without a theory of wordings – that is, grammar – there is no way of making explicit one’s interpretation of the meaning of a text” (1994, p. xvi).

Following this, it is the aim of this thesis to carry out data analysis based on grammar using the tools provided by SFL.

4.4.1 Curriculum genres and macrogenres

Christie’s (1993, 1997, 2002) development of Bernstein’s conception of pedagogic discourse (1990) resulted in the notion of curriculum genres and macrogenres from research within the SFL tradition (e.g., Martin, 1997). Christie asserted that the theory of curriculum genres and macrogenres “provides a principled basis for making selections of classroom texts for analysis and interpretation” (Christie, 2002, p.22). The stage by stage analysis of multimodal pedagogic discourse would allow for cross comparisons of the different lessons conducted by the different teachers.

As discussed in Chapter 1, pedagogic discourse is the patterned ways in which the regulative and instructional discourse operate in the classroom; regulative discourse refers to how teaching and learning happens in classrooms including the goals, pace and sequence of activities and rules of behaviour while the instructional discourse refers to what is being taught and learned - the ‘content’ or instructional field of the

lesson. According to Christie, “pedagogic discourse can be thought of creating curriculum genres and sometimes larger unities referred to as curriculum macrogenres” (2002, p. 3).

The term macrogenre was first conceptualised by Martin (1994, 1995) to describe how the elemental genres such as explanations, recounts and procedures in a written text form a larger entity such as a science textbook. This larger entity is called the macrogenre. This has been extended by Christie (2002) as curriculum macrogenres defined as a complete unit of curriculum activity “marked by some clearly initiating stage which signals the commencement of some new learning about the topic, and it will be marked by a clearly defined closure, expressed for example, in completion of a piece of work which normally has significance as a tool for evaluation of the students’ learning” (p. 23). The curriculum macrogenres consist of smaller entities called curriculum genres which are “staged, purposeful social activit(ies) in which certain pedagogical goals are realised” (Christie, 1995, p. 224). Curriculum genres can be seen as lessons or groups of lessons that are directed to achieve some pedagogical goal. In her observations of English and Science lessons, Christie (1995, 1998, 2002) found that most curriculum genres begin with Curriculum Initiation, followed by Curriculum Negotiation or Collaboration, and end with Curriculum Closure. Curriculum Initiation usually has a few stages which serve to introduce the field of instruction, set goals, outline criteria for evaluation, and “crucially predisposes the students to work and think in particular ways” (Christie, 2002, p. 101). In early primary schooling, this often involves students’ related experiences of the field of instruction or what Bernstein (1999) calls common sense knowledge as

teachers use this as a basis to build curriculum knowledge. The Curriculum Negotiation or Collaboration genre shows the most variation between macrogenres depending on students' age, academic profile and overall goals set by the teacher (Christie, 1998). This middle genre often involves the completion of some task. In Curriculum Negotiation, students attempt the task together with their teacher whereas in Curriculum Collaboration, students work with each other to complete the task with teachers playing a supportive role. The Curriculum Closure marks the end of the curriculum macrogenre. This is where learning is consolidated and reviewed and evaluation of learning is carried out. Figure 4.2 shows the relationship between the curriculum macrogenre and the genres described.

The linear sequence of the Curriculum Initiation, Curriculum Negotiation or Collaboration and Curriculum Closure indicates an incremental accumulation of knowledge culminating to a peak at the end where students are being evaluated based on what they have learnt. In her observation of Geography lessons, however, Christie (2002) came to the conclusion that the curriculum genres for this subject were better characterised by an orbital structure. The relationship between Curriculum Initiation and the other curriculum genres called Curriculum Exemplification are not linear; instead, each of the Curriculum Exemplification is related to the Curriculum Initiation as shown in Figure 4.3.

Figure 4.2: Linear progression of Curriculum Genres (reproduced from Christie, 2002, p. 100)

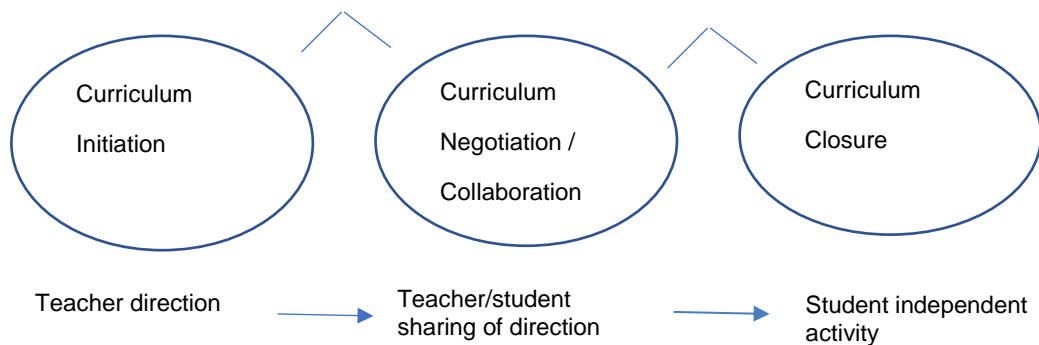
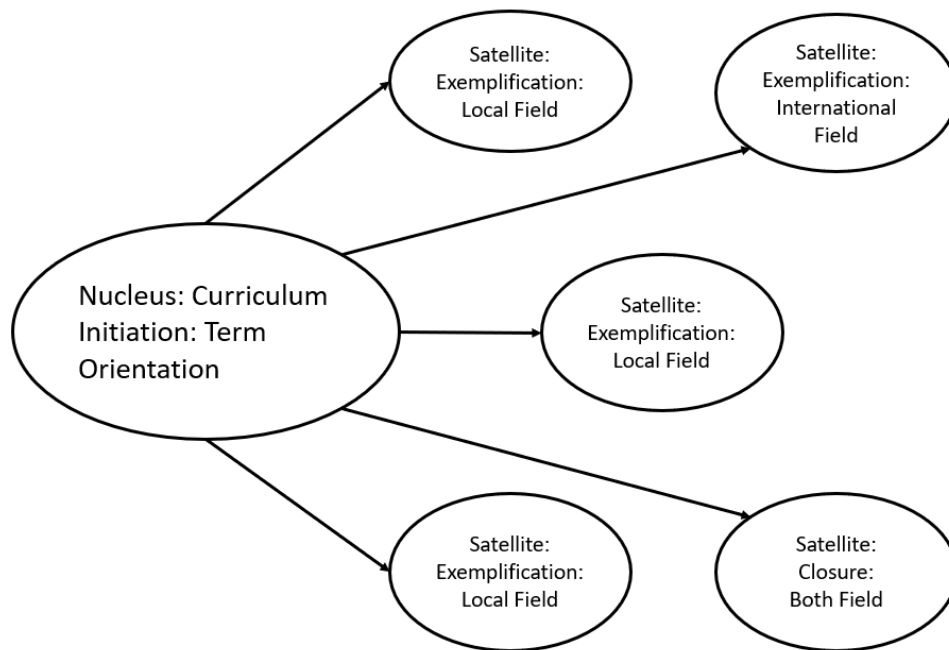


Figure 4.3: Orbital sequence of Curriculum Genres (adapted from Christie, 2002, p. 132)



Christie (2002) invokes the metaphor of satellites and nucleus in explaining the relationship between the curriculum genres: “Each of the Curriculum Exemplifications has status and significance primarily because of its relationship to the Curriculum Orientation, and not because of their relationships to each other” (p. 132). The activities in the Curriculum Exemplification do not follow one another; rather these activities often

overlap and this “leads to the development of knowledge which is accretive” (Christie, 2002, p. 132). Because of this, the re-ordering of the curriculum genres bears no pedagogical significance. This is in stark contrast to the linear macrogenre explained earlier, where the sequence from one curriculum genre to another is crucial to the learning process. Curriculum genres can be further broken down into stages of curriculum activity or what Martin and Rose called ‘schematic structures’, defined as “recurrent local patterns within genres” (2007, p.4). Although Martin and Rose worked mainly with written texts, Christie (2002) found schematic structures useful in describing classroom activities in the unfolding of pedagogic discourse as teachers often assign tasks that may be discrete in nature but work together to fulfil the pedagogical aims of the curriculum macrogenre. These schematic structures are realised in the form of tasks or activities carried out during the lessons (Jones, 2005).

The schematic structures are, in turn, made up of smaller units called phases or steps. These are particularly sensitive to learner’s responses and the immediate context of situation that is the classroom environment and so these are varied from one classroom to another. Phases could include the spontaneous teaching of a particular new word arising from the shared reading activity, the review of a previous lesson or instructions on assigned tasks. Phases are the smallest unit of curriculum macrogenres.

Table 4.2: The lesson microgenre ‘Teacher Disciplinary Interruption’ contextualised to register variables (O’Halloran, 2004, p.196).

Definition: The teacher interrupts the genre-in-progress
Field: Related to student behaviour
Tenor: Participants – teacher and student(s)
Affect: Low-high/neutral to negative
Power: Unequal relations with full exposure of the teacher’s position as dominating
Mode: i) oral (two-way, turn-restricted, turn-controlled, quasi-dialogue)
ii) constitutive (construction/reconstruction)

Adapting Christie’s work on Curriculum Macrogenre (1993, 1997, 2002), O’Halloran (O’Halloran, 1996, 2004) introduced the concepts of Lesson Genres and Lesson Microgenres. The Curriculum Macrogenres are realised through a series of stages known as Lesson Genres. These, in turn, are realised through Lesson Microgenres. Based on this, O’Halloran proposed seven Lesson Genres and forty-six Lesson Microgenres. The seven Lesson Genres are: Pre-Lesson Genres, Interpolated Disruptive Genres, Interpolated Genres, Preliminary Genres, Preliminary/ Main Lesson Genres, Main Lesson Genres and End of Lesson Genres. These are mapped against the clause time to show the development of the lessons and as such, “the synoptic description of the microgenres for the analysis of lessons is used to dynamically represent the unfolding of an actual text” (1996, p.65).

Table 4.3 Lesson Microgenres (O'Halloran, 2004, p.194)

PRE-LESSON GENRES	PRELIMINARY GENRES
1. Teacher Preparation 2. Settling into Work 3. Student Conversation 4. Teacher Conversation	16. Attendance 17. Classroom Business 18. Homework Collection 19. Homework Check 20. Review 21. Motivation 22. Lecture
INTERPOLATED DISRUPTIVE GENRES	PRELIMINARY/MAIN LESSON GENRES
5. Outside Interruption 6. Confrontation 7. Student Disruption 8. Teacher Disciplinary Interruption 9. Student Interruption 10. Disorientation 11. Teacher Side Play	23. Diagnostic Activity 24. Student Review Task 25. Student Review Task Discussion 26. Student Extension Task 27. Student Extension Task Discussion 28. Copying Notes 29. Test/Exam Discussion 30. Homework Discussion 31. Teacher Summary 32. Teacher Narrative
INTERPOLATED GENRES	MAIN LESSON GENRES
12. Liminal Activities 13. Teacher-Student Private Public Interaction 14. Teacher-Student Private Interaction 15. Student-Student Private Interaction	33. Teacher Exposition 34. Board Demonstration 35. Seat Work 36. Seat Work Discussion 37. Group Work 38. Group Work Discussion 39. Practical Activity 40. Practical Activity Discussion 41. Test/Exam 42. Media Presentation 43. Media Presentation Discussion 44. Computer Activity 45. Computer Activity Discussion
	END OF LESSON GENRE
	46. Closure

Lesson Microgenres are contextualised according to register variables of field, tenor and mode. O'Halloran (2004, p. 196) gave the example of 'Teacher Disciplinary Interruption' in Table 4.2. The list of forty-six Lesson Microgenres by O'Halloran (2004) is shown in Table 4.3. Because of the nature and focus of the present research, adaptations to O'Halloran's Lesson Genres and Lesson Microgenres are necessary. This will be discussed in detail in Chapter 5.

4.4.2 Analysis of semiotic resources

The multimodal discourse analysis of the semiotic resources would reveal the dynamic unfolding of meaning in text, thus representing a logogenetic analysis as opposed to an ontogenetic analysis, which is concerned with the development of an individual, and phylogenetic analysis, which involves the expansion of culture (Martin, 1999).

Due to the complex nature of multimodal analysis, the analysis will be done through the use of NVivo (QSR International, 2012). NVivo was chosen to facilitate the analysis of the video data in this research largely due to its ability to code from the timeline of the video data, hence isolating the two semiotic resources of speech and gesture and allowing for the coding of gesture even during a period of silence. Nvivo is also equipped with powerful analysis tools such as the creation of coding matrices to explore the data in-depth.

4.4.2.1 Analysis of the semiotic resource of speech

Analysis of the semiotic resource of speech is undertaken based on the selection of data arising from the curriculum macrogenre analysis described above. As the focus of this thesis is on how social relationships are enacted in the construction of knowledge in the teaching and learning activity and the stances adopted by teachers and students, the linguistic

analysis will be limited to the interpersonal metafunction (at the stratum of lexicogrammar and discourse semantics).

The major systems operating in the interpersonal metafunction are the system of mood at the stratum of lexicogrammar (Halliday, 1994); and the systems of speech function (Eggins & Slade, 2006) and appraisal (Martin & White, 2005) at the stratum of discourse semantics. The MOOD system provides tools to understand how power is distributed in the classroom between teachers and students; including the ways that teachers exert control over students in constructing knowledge and managing behaviours. Speech function analysis maps out the way classroom discourse unfolds in moves and exchanges whilst revealing the forms of knowledge being sought, legitimised and eventually constructed. Appraisal analysis gives us insights into how teachers manage dialogic spaces in build learning communities during classroom discussions through the system Engagement. These analyses therefore provide a solid foundation from which to form conclusions about the social roles enacted by teachers and students; and consequently, how the teaching and learning experiences differ from classroom to classroom.

4.4.2.1.1 [Preparation of transcripts for analysis of speech](#)

Transcription of the three lessons were carried out using the free software Express Scribe. A sample of the transcript and transcription conventions are detailed in Appendix 5. Cross checks of transcriptions were carried out to ensure accuracy of transcribing and adherence to transcription conventions.

The three ways of analysing the semiotic resource of speech require different ways of preparing the transcripts. For the mood analysis,

the clause is the basic unit of analysis, defined as a unit with one process type (Halliday, 1994).

For the Appraisal analysis (Martin and White, 2005), the raw transcript was used since the unit of analysis here is the rhetorical effect of the discourse; thereby taking the analysis beyond the clause. The unit of analysis can turn on a word, for example, 'claim' (Martin and White, 2005, p. 103) or a longer discourse unit, for example, "there's nothing wrong with meat, bread and potatoes" (Martin and White, 2005, p.118).

The speech function analysis requires the transcript to be divided into turns/moves. While these are close to the structure of the clause, there are differences. Eiggins and Slade (2006) highlighted two characteristics of moves. Firstly, the grammatical dependence or independence of the clause; the former would be treated as one move while the latter would be treated as two moves. Secondly, the prosodic features of the speech would determine whether more than one clause could be treated as one discourse unit and therefore one move.

The three analyses of the semiotic resource of speech have been carried out using NVivo 10 (QSR International, 2012). This software allows for sophisticated linguistic analysis in terms of filtering and extracting information.

4.4.2.1.2 The mood analysis

In Halliday's words, "(L)anguage has to express our participation, as speakers, in the speech situation: the roles we take on ourselves and impose on others; our wishes, feelings, attitudes and judgements" (Halliday, 1978, pp. 21–2). This emphasises the point that speakers position not only themselves but also their speech partners in any given speech situation. By taking on a particular speech role, the speaker is

ultimately assigning a complementary speech role to his/her audience (Halliday & Matthiessen, 2004). There are two basic speech roles in language: giving and demanding. This is mapped against the nature of commodity being exchanged; either goods-and-services or information. The interaction between speech roles and the nature of commodity being exchanged describes the four main speech functions which are statement, question, command and offer (see Table 4.4). When the commodity being exchanged in the clause is information, SFL terms this as ‘proposition’ as information can be argued about, contradicted or agreed upon and so on. When goods-and-services are exchanged, the term ‘proposal’ is used to show that such an exchange cannot be argued about – it can only be accepted or rejected (Halliday and Matthiessen, 2004).

Table 4.4: Speech roles and their functions (adapted from Halliday and Matthiessen, 2004, p. 107)

Speech role	Nature of commodity	
	Goods-and-services (proposal)	Information (proposition)
Giving	Offer (congruently realised as modulated interrogative) e.g. <i>Would you like a drink?</i>	Statement (congruently realised as declarative) e.g. <i>The earth is round.</i>
Demanding	Command (congruently realised as imperative) e.g. <i>Read the next line!</i>	Question (congruently realised as interrogative) e.g. <i>What is he reading?</i>

The analysis of the speech functions are carried out at the level of clause. The speech function of offer and question are congruently realised as interrogatives either as Wh-interrogatives or yes/no-interrogatives: *Wh-*

*element^Finite^Subject^Predicator*⁹ and *Finite^Subject^Predicator* respectively as shown below:

Wh-interrogative:

What	Is	He	reading?
<i>Wh-element</i>	<i>Finite</i>	<i>Subject</i>	<i>Predicator</i>

Yes/No-interrogative:

Is	He	reading?
<i>Finite</i>	<i>Subject</i>	<i>Predicator</i>

The speech function of statement is congruently realised as declarative in the form of: *Subject^Finite^Predicator*.

Statement

He	Is	reading.
<i>Subject</i>	<i>Finite</i>	<i>Predicator</i>

The difference between interrogatives and declaratives lies in the position of the Finite and Subject elements within the Mood constituent (Halliday & Matthiessen, 2004). In interrogatives, the Finite precedes the Subject; it is the inverse for declaratives. Commands are congruently realised as imperatives (*Subject*)[^]*Predicator*, the Subject being optional

⁹ The symbol '^' acts as separator between the grammatical elements of the clause.

and therefore placed in brackets. Where the Subject is specified, this usually indicates an added emphasis on the addressee to carry out the stated command such as “You read!”.

You	read!
<i>Subject</i>	<i>Predicator</i>

The speech functions can, however, be incongruently realised due to the flexibility between the stratum of lexicogrammar and discourse semantics. This allows for meaning to be expanded as interpersonal metaphors. Table 4.5 shows the configurations of congruent and metaphorical realisations of clauses.

For example, in classrooms, teacher commands are often incongruently realised in the form of questions such as ‘Would you please return the books?’ or declaratives such as ‘I would appreciate silence at this point of time’ instead of the congruently realised imperatives of ‘Return the books!’ and ‘Quiet!’ respectively. This is usually used by teachers to soften their authoritative stance and manage social relations with their students to contribute to a positive learning environment. A teacher’s selection of clause types and basic speech functions would give an indication as to the social roles played by the teacher and students.

In addition to the analysis of speech functions, analysis of the Subject within the Mood constituent within the clauses would be beneficial in revealing the focus of the proposition or proposal throughout the classroom discourse. The Subject is considered essential in the clause because it is the person or thing which is being “held responsible for the functioning of the clause as an interactive event” (Halliday & Matthiessen,

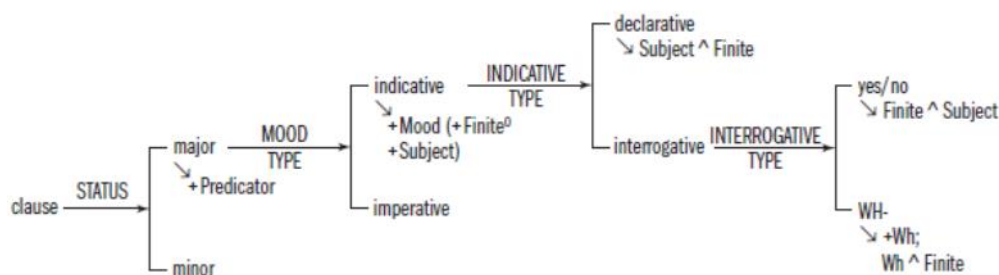
2004, p. 117). Because of the focus of this thesis on the positioning adopted by teachers, this analysis is limited to instances where the Subjects are the pronouns 'I', 'we' or 'you'. In a proposition such as "You read the next line!", the subject 'you' is responsible for responding either by obeying or rejecting the command.

Table 4.5. Congruent and metaphorical realisations of the four basic speech functions (adapted from Eggins and Slade, 2006)

Speech Function	Congruent realisations	Metaphorical realisations
Command	Imperative <i>e.g. Hand in your books now.</i>	Modulated interrogative <i>e.g. Will you hand in your books now?</i> Modulated declarative <i>e.g. You should hand in your books now.</i>
Offer	Modulated interrogative <i>e.g. Would you like a drink?</i>	Imperative <i>e.g. Have a drink!</i> Declarative <i>e.g. Here's a drink.</i>
Statement	Declarative <i>e.g. The book is due today.</i>	Tagged declarative <i>e.g. The book is due today, isn't it?</i>
Question	Interrogative <i>e.g. Can you guess her age?</i>	Modulated interrogative <i>e.g. Would you like to guess her age?</i>

Analysis of the MOOD system could therefore demonstrate how control is being exerted by teachers and how power is distributed in the classrooms. A simplified version of the MOOD system is shown in Figure 4.4.

Figure 4.4. Simplified MOOD system (reproduced from Halliday, 2004, p.23)



4.4.2.1.3 Speech functions analysis

Egins and Slade (2006) developed Halliday’s speech functions to expand the system to allow for a more delicate analysis of moves and exchanges in conversations. The approach adopted by Egins and Slade has been described as eclectic, combining perspectives from Conversation Analysis with its account of turn-taking; Systemic Functional Linguistics for its systematic analysis of discourse; and Critical Linguistics and Critical Discourse Analysis for the role of micro-interactions as realizing macro-social structures; amongst others. Although their work is on casual conversations in the home and workplace, they have suggested that their framework could be used in other contexts such as “pragmatic and pedagogic interactions” (Egins and Slade, 2006, p. 313-314). Their framework has since been employed productively in classroom discourse (e.g. Hirst, 2003; Kobayashi, 2006; Kress et al., 2005; Woorward-Kron & Remedios, 2007) to investigate interpersonal student-teacher and peer relations. Whilst it can be surmised that casual conversations are experientially different from pedagogic discourse, I would argue that the social relations operating during casual conversations are also existent during classroom discussions. Power and solidarity are as much a part of teacher-student conversations as they are in dialogues between co-

workers or family members. Due to this, the decision to utilise a framework that has been originally devised for casual conversations seems justified.

The mood analysis described in the previous section is at the level of lexicogrammar and the unit of analysis is the clause. The analysis of discourse function in the system of SPEECH FUNCTION, however, resides at the level of discourse semantics. Its unit of analysis has been identified by Halliday (1984) as a move. Building on this, Eggins and Slade (2006) define a move as “a unit after which speaker change could occur without turn transfer being seen as an interruption” (p. 186). They propose two criteria in identifying moves that are grammatical and prosodic in nature. The former criterion adopts Martin’s suggestion that a move is that “which selects independently for mood” (1992, p. 40). However, Eggins and Slade (2006) contend that this is not sufficient as the intonation contours of the spoken words would also play a part in determining a move. Therefore, for a clause to also be a move, it has to be uttered as a single intonation unit. To illustrate these criteria, the following turn by a speaker comprises two clauses with the sign ‘/’ demarcating the two clauses: *He was bored / so he went for a walk*. ‘He was bored’ is the main clause and ‘so he went for a walk’ is the dependent clause. Both clauses would be considered to be one move if the utterance was spoken without a pause in between the two clauses. The presence of a pause would indicate that a speaker change could occur at this juncture; hence resulting in two moves realised in the two clauses. Intonation is, therefore, crucial in identifying individual moves.

The four basic speech functions outlined earlier (offer, command, statement and question) are categorised as ‘initiating speech functions’ to show how dialogues often begin. Halliday (1984) offers four corresponding responses, ‘responding speech functions’, that are considered typical:

acknowledgement, answer, compliance and acceptance to underscore the interactivity of dialogue. This has been expanded by Eggins and Slade (2006) to take into account instances of compliance and non-compliance shown in Table 4.6, providing a basis for which to create a system network to describe in detail the options available to speakers involved in a dialogue. Within the system network, the speech function classes describe moves functionally (i.e., how the moves work in a dialogue) and grammatically in terms of the choices selected for mood and modality.

Table 4.6: Initiating and responding speech functions (adapted from Halliday 1994, p. 94 and Eggins and Slade, 2006, p. 184)

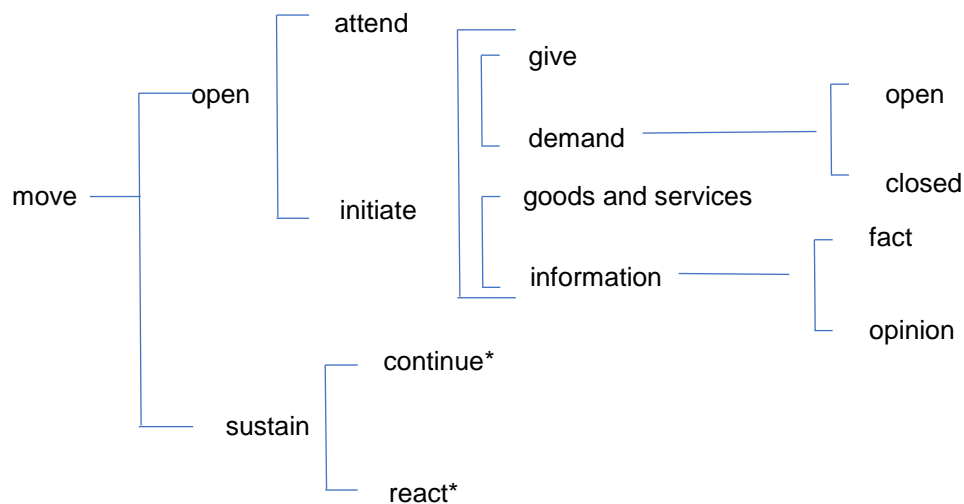
Initiating speech function	Responding speech functions	
	Supporting	Confronting
Command imperative <i>Give it to me!</i>	Compliance Minor O.K.	Refusal Elliptical declarative No
Offer Modulated interrogative <i>Would you like a drink?</i>	Acceptance Minor or non-verbal <i>Thank you.</i>	Rejection Minor clause <i>No thanks.</i>
Statement Declarative <i>This pie is delicious.</i>	Acknowledgement Elliptical declarative <i>Yes, it is.</i>	Contradiction Elliptical declarative <i>No, it's not.</i>
Question interrogative <i>Where is the library?</i>	Answer Elliptical declarative <i>Round the corner on the right.</i>	Disclaimer Elliptical declarative <i>I'm not sure.</i>

A partial overview of the system network is presented in Figure 4.5. The entry point is the move, which opens up two options, either 'open' or 'sustain'; the former begins a dialogue whilst the latter seeks to sustain a dialogue. The option 'open' provides further selections of either 'attend' or 'initiate'. 'Attend' prepares the situation for interaction by calling another party to attention while 'initiate' starts a dialogue. Further options for 'initiate' describe the commodity being exchanged (either goods and services or information) and, in parallel, the move gives or demands such commodity. Further options of 'open' and 'closed' are available for 'demand'; and 'fact' or 'opinion' for 'information'.

Opening moves introduce propositions or proposals for negotiation in a dialogue. 'Sustain' moves, however, maintain the proposition or proposal first introduced. This could be by the same speaker, thereby selecting the option known as 'continue', or the speaker turn could be passed on to another party, the option 'react'. Continuing moves can act to monitor, prolong or append 'React' moves can either propel towards completion of the exchange ('respond') or seek to prolong the exchange (rejoinder).

The analysis of speech function using the system network by Eggins and Slade (2006) provides means in which to study the dynamics of teacher-student whole-class discussions. Conclusions can be made, for instance, about what kinds of questions teachers ask (i.e., open or closed, fact or opinion), how supportive they are of students' responses, how they respond to student questions and whether they sustain elaborated discussions that result in a deeper understanding or otherwise.

Figure 4.5: Partial overview of the SPEECH FUNCTION system network from Eggins and Slade (2006, p. 193) (Asterisk [*] indicate further options are available)



4.4.2.1.4 Appraisal Analysis

In interactions between teachers and students in SBA (Shared Book Approach) lessons, there are at least four voices that are at play – the writer voice, the illustrator voice, the student voice and the teacher voice. As highlighted in MOE policy documents in Chapter 1, it is important for teachers to provide ‘space’ for student voice in providing opportunities for students to present and share their ideas. Whether this happens for the data in this study can be observed from the classroom discourse data through the Engagement system analysis within the appraisal theory. The analysis using the Engagement system provides tools in the form of networks that show how teachers engage in discussions with students in a way that opens up space for student voice or otherwise.

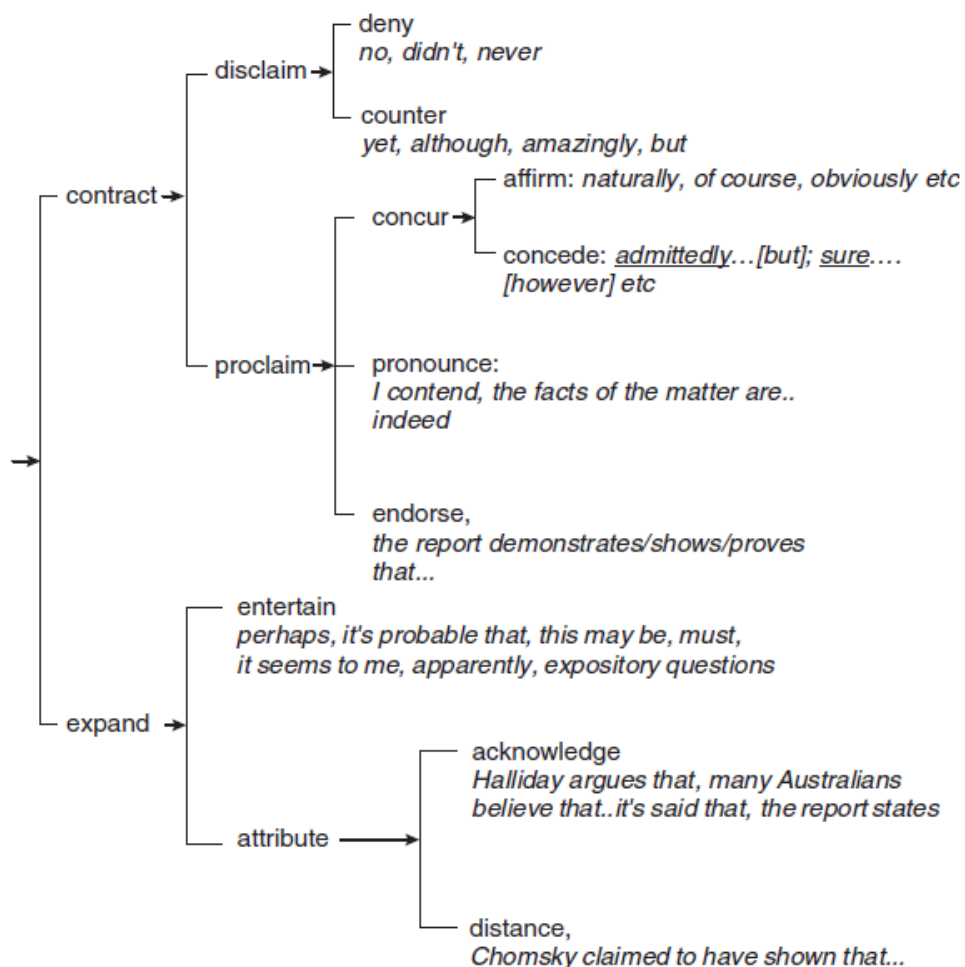
The appraisal theory functions at the discourse semantics stratum within SFL. The unit of analysis thus goes beyond clause boundaries and examines the text as a whole. It probes the relationship between

speaker/writer and the audience through particular linguistic resources that shows the positioning of the speaker/writer with regards to a value proposition made by the speaker in his utterance or writer in his speech/writing (Martin & White, 2005). The theory is anticipatory in nature as not only does it reveal the stance taken by the speaker/writer, it also shows the kind of response that is expected from the listener/reader. Martin and White (2005) describe the appraisal theory as a way for “the authorial voice to position with respect to and hence to engage with, the other voices and alternative positions construed as being in play in current communicative event” (p. 94), the foundation of which rests on Bakhtin’s theory of dialogism and heteroglossia (Bakhtin, 1981). When applied to the current data, the appraisal theory uncovers the ways in which teachers as the ‘authorial’ voices position themselves with respect to the visual and verbal modes in the multimodal text (the Big Book) and align or dis-align their students with these positions.

The Engagement system is shown in Figure 4.6. The analysis starts with ‘heteroglossic’ utterances. As such, the identification of utterances that are either ‘monoglossic’ or ‘heteroglossic’ must first be carried out. The former are utterances which do not recognize other dialogistic alternatives whilst heteroglossic utterances are those that recognize other dialogistic alternatives. An example of a monoglossic utterance by a teacher from the data is this: *A brontosaurus is a dinosaur that eats only plants*. This is a categorical statement for which no alternative voice is given recognition; it simply states a ‘truth condition’ (Martin and White, 2005, p.99) and suggests that the teacher did not expect any

disagreement with the said value proposition from the listeners i.e., the students. An example of heteroglossic utterance by a teacher from the data is this: *What do you think the class is having?* This is heteroglossic as the utterance serves to open dialogic space and include student voices into the dialogue.

Figure 4.6: The engagement system (Martin and White, 2005, p. 134)



Heteroglossic utterances, the starting point of the Engagement analysis, can be further categorized into either [contract] or [expand]. [Contract] utterances serve to “close down the space for dialogic alternatives” (Martin & White, 2005, p. 103) whilst recognizing that there may be such alternatives. They “challenge, fend off or restrict” (Martin &

White, 2005, p. 102) other positions that may be held by the listeners. Conversely, [expand] utterances open up dialogic space and give opportunities for listeners to offer alternative views at a “lower interpersonal cost” (p. 102).

Within the contracting option, Martin and White stipulate that there are two ways utterances can contract dialogic space. These are [disclaim] or [proclaim]. In [disclaim], the authorial voice “positions itself as at odds with, or rejecting, some contrary position” (Martin and White, 2005, p. 97). Further options are available for [disclaim]: [deny] and [counter]. The authorial voice in [proclaim] presents propositions viewed as reliable and thus “sets itself against, suppresses and rules out alternative positions” (Martin and White, 2005, p. 98). More delicate options of [concur], [endorse] and [pronounce] are available for [proclaim]. The examples found in Table 4.7 from the larger data set show the differences in each of these contracting options (the underlined portions exemplify the particular category – a longer stretch of data is sometimes necessary for readers to understand the context).

The five ways listed in Table 4.7 serve to contract dialogic space in different ways. The ‘proclaim’ options do this by narrowing or limiting alternative views against the backdrop of acknowledging these other views. Utterances that select the [concur] option represent some form of shared knowledge between the addressor and addressee. Both parties are so aligned with each other such that no rejection on the part of the addressee is expected (Martin and White, p. 122-123). This includes a particular kind of question, often labelled as ‘leading questions’, where the

“speaker is represented as assuming no answer needs to be supplied for a particular question on account of that answer being so ‘obvious’” (Martin and White, p. 123). Given the classroom context of this research where question-and-answer sequences make up a majority of the classroom discourse, instances where answers are being supplied by the students spontaneously and in chorus are also considered as [concur] as this would suggest that the information sought was shared within the classroom community. This option also includes instances where teachers repeated students’ answers and agreed with them. This is realised usually by the repetition spoken with a falling tone. In the given example above for [contract; proclaim; concur], the teacher’s question can be considered as a ‘leading question’ since the answer was plainly visible on the cover of the book. The answer given by the students followed almost immediately in chorus. There is therefore very little space for alternative views to surface.

The option of [pronounce] includes utterances that show explicit intervention or extrapolations by the authorial voice such as ‘I contend’ and ‘The facts of the matter are’ and intensifiers such as ‘really’ (Martin and White, 2005, p. 127). When applied to the current study, these are teacher utterances that explicitly highlighted her position or stance. This also includes explicit instructions made by the teacher. In the above example, the utterance ‘*I want to hear you expressing it so let’s read it again*’ is an explicit intervention of the teacher voice when students failed to read a particular sentence expressively. Again, there is minimal space for student voice to counter this and hence the contraction of dialogic space.

Table 4.7: Options for [contract]

No.	[Contract] options	Examples
a)	[contract; proclaim; concur]	<p>T: <u>Ok, this book is written by?</u></p> <p>CLS: Daisy Wall.</p> <p>T: <u>Daisy Wall.</u></p>
b)	[contract; proclaim; pronounce]	<p>T: <u>I want to hear you expressing it so let's read it again.</u></p>
c)	[contract; proclaim; endorse]	<p>T: Class, do you think the rumbling came from the book?</p> <p>CIN: It's from the stomach, stomach! Teacher's stomach! (overlapping)</p> <p>T: From the teacher's stomach?</p> <p>CLS: No!</p> <p>T: What makes you say that it's from the teacher's stomach?</p> <p><u>Can you see can you see from the picture the teacher's stomach?</u> No, right? OK, let's go on.</p>
d)	[contract; disclaim; deny]	<p>T: Where? Where? Do we have a closet in the classroom?</p> <p>CLS: No!</p> <p>CIN: There! There!</p> <p>T: Alright! <u>That's not a closet.</u> That's called a cupboard.</p>
e)	[contract; disclaim; counter]	<p>CIN: Do they eat human?</p> <p>T: Do you think a brontosaurus eat human?</p>

		<p>CIN: Yes!</p> <p>T: <u>But we never know, because during that time, human may not have really existed.</u> OK, and we have no record.</p> <p>CIN: The brontosaurus eats only leaves.</p>
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Endorsement is explained by Martin and White as “propositions sourced to external sources are construed by the authorial voice as correct, valid, undeniable or otherwise maximally warrantable” (2005, p.126). In the present data, the authorial voice can be the teacher’s or the student’s voice and external sources are mostly the author voice or the illustrator voice of the big book. The example given above shows how the authorial voice, in this case the teacher voice, placed much value on the illustrator voice. The students’ answer that the sound came from the teacher’s stomach was rejected by the teacher as this did not align with the illustrator voice – there was no indication in the picture that the sound could be coming from the teacher’s stomach as opposed to the picture of the girl where curvy lines at the sides of her body suggested movement presumably from the rumbling of her stomach. By highlighting the importance of the illustrator voice, the teacher voice aligned students with the illustrator voice. The effect of this is to contract the dialogic space available to students. Implicitly, the teacher hinted at what could be considered a ‘good’ answer – inferences must be supported by the semiotic resources of image and written language in the text.

The three ways above serve to contract or narrow the dialogic space. This is in contrast with the following two options in the system of [contract; disclaim], where the authorial voice out rightly rejects or oppose a proposal. These options are [deny] and [counter].

[Deny] or negation is maximally contractive as an alternative position is introduced so that it could be rejected (Martin and White, 2005, p. 118). These are manifested through the use of negations such as 'no' or 'not'. The example above highlights the teacher's rejection of the student voice that proposed the cupboard in the classroom was a closet: "That's not a closet". This utterance simultaneously acknowledged and rejected the proposition. Hence, even though it is heteroglossic, it contracts dialogic space rather than expands it.

[Counter] serves to "represent the current proposition as replacing or supplanting, and thereby 'countering', a proposition which would have been expected in its place" (Martin and White, 2005, p.120). The example above shows how [counter] contracts dialogic space. The proposition 'A *brontosaurus is a dinosaur that eats only plants*' was forwarded by the teacher as a monoglossic utterance representing a fact that cannot be denied and so position the students as aligning with this proposition. When a student asked whether brontosaurus ate humans, she replaced this proposition with a [counter] utterance, which is heteroglossic: *But we never know, because during that time, human (sic) may not have really existed. OK, and we have no record.* This unexpected replacement of a countering utterance to the monoglossic proposition earlier confused at least one student, who repeated that *brontosaurus eats only leaves*; presumably,

this is to emphasise that they are herbivores. The teacher’s countering move therefore risked the solidarity achieved with the previous monoglossic proposition.

Heteroglossic utterances that expand either [entertain] or [attribute]. The latter opens up the options of [acknowledge] and [distance]. Table 4.8 lists examples from the data that expand dialogic space.

[Entertain] option is selected when “the authorial voice indicates that its position is but one of a number of possible positions and thereby, to greater or lesser degrees, makes dialogic space for those possibilities” (Martin and White, 2005, p. 104). This option also includes questions that are expository in nature with the purpose of “entertain(ing) instead of assert(ing) some proposition” (Martin and White, 2005, p. 110). As seen from the example in Table 4.8 (a), the question posed by the teacher ‘*What do you think will make the sound the rumbling sound stop?*’ is expository. Such questions are maximally expanding as it creates space for student voice.

Table 4.8: [Expand] options

No.	[Expand] options	Examples
a)	[expand; entertain]	T: What do you think will make the sound, the rumbling sound stop?
b)	[expand; attribute; acknowledge]	T: Oh, you are saying that she has a sly smile.
c)	[expand; attribute; distance]	(No example found in the data for this teacher)

Whereas the position of the authorial voice in [entertain] is overtly stated, it is not so in [attribute]. Instead, the authorial voice disassociates itself from the proposition in question and attributes it to some external source and is therefore explicit in its subjectivity (Martin and White, 2005). This can be done in two ways. [Acknowledge] allows the authorial voice to avoid committing to a position or stance with regards to the proposition; alignment or disalignment is dependent on the co-text. This is achieved through the use of reporting verbs such as say, report and believe. The example of [acknowledge] above represents the teacher voice as neutral, using the reporting verb 'saying' to forward a proposition made by a student. From the present data, however, the teachers often repeat students' answers without the use of reporting verbs. Therefore, for the purpose of analysis here, this option includes instances where teachers repeat students' answers and did not commit to an evaluation, remaining neutral. This could be realised in a declarative statement but spoken in a rising tone. On the other hand, [distance] functions to "mark explicitly the internal authorial voice as separate from the cited, external voice" (Martin and White, 2005, p. 113) and can be identified by the use of words such as 'claim'. [Distance] is not found in the present data.

4.4.2.2 Analysis of gestures

Due to the complexity of gesture analysis, this undertaking could only be carried out with the advent of video recording facilities, one of the earliest research studies being the pioneering work of Ekman and Friesen (1969). Although much progress has been made in recent times, analysis of gestures is still a contentious area.

Two major issues concerned with gesture analysis are the difficulty in defining gestures (i.e., what can be considered to be gestures) and identifying a unit of analysis for gestures. McNeill defines gestures as “movements of the hands and arms that we see when people talk” (McNeill, 1992, p. 1). Kendon (1987) narrows this further by defining gestures as actions of body parts or bodily movements that convey meanings and are communicatively significant, co-occurring with speech. Gestures that are habitual and repetitive and that are used to regulate turns in conversation are not considered as communicatively significant in conveying meaning, including bodily movements that function to regulate the distance between conversational participants. What can be considered as communicatively significant is, however, open to interpretation. This subjective nature of identifying gestures could be a concern in studying gestures. To address this, the analysis of gestures will adopt a bottom-up and top-down approach which will be explained presently.

McNeill introduces what he calls “Kendon’s Continuum”, in honour of Kendon’s earlier contribution (McNeill, 2000). This continuum is divided into four continua – gesticulations, emblems, pantomime and sign language and describes the various types of gestures found. At one end is gesticulation, followed by emblems, pantomime and sign language at the other end of the continuum. Gesticulation is accompanied by speech and serves to emphasise the meaning of the speech content. Emblems are cultural signs embedded in the practices of a society that may or may not be accompanied by speech. Pantomime is not accompanied by speech but may require speech to anchor its meaning, either before or after the performance of the gesture. Similarly, sign language is not accompanied by speech but it comprises a language system that is regulated and predictable. An alternative view which will be adopted in this

thesis is offered by Cleirigh. Body language is categorised in three semiotic systems: protolinguistic, linguistic and epilinguistic (Cleirigh in Hood, 2011). Protolinguistic is a “development from protolanguage” (Cleirigh in Hood, 2011, p.33) and has only the expression and meaning; as such language is not needed to retrieve meaning. Examples of protolinguistic body language include crossing of arms realising disapproval and extending the hand with the palm facing outwards realising the command to stop. Linguistic body language occurs together with speech - movement of body language is synchronised with the rhythm and intonation of speech to “express salience and tone, co-instantiating textual and interpersonal meanings” (Hood, 2011, p.33-34). Lastly, the epilinguistic body language is “made possible by transition [from protolanguage] into language but [is] not systematically related to the lexicon of language (...) realis[ing] meanings rather than wordings” (Cleirigh in Hood, 2011, p.34) and may or may not co-occur with speech. Without speech, epilinguistic body language carries all the semantic load, constituting mime; with speech, it “makes visible the semantics of speech” (Hood, 2011, p.34) - these are similar to pantomime and gesticulation respectively in Kendon’s continuum.

The analysis of gestures is further complicated by the difficulty in determining the unit of analysis. According to Kendon (1980), there are three phases found in the performance of gestures. The main part of the gesture where meaning is conveyed is called the stroke. Prior to this is the preparation phase when the hands are in preparation to execute the stroke. This is followed by the optional retraction phase, where the hands move back to their resting positions. This phase is optional as it is possible for one stroke to move on to another preparation phase for the next stroke. In addition, optional phases of pre- and post-stroke hold are proposed by

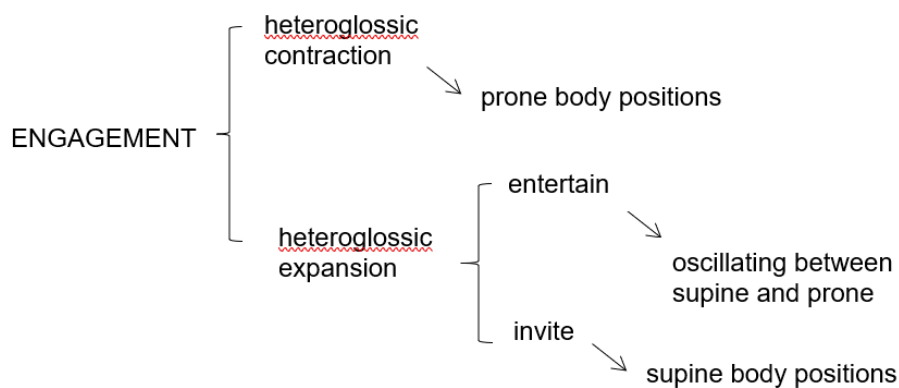
Kita, van Gijin and van der Hulst (1998). These phases occur either before or after the stroke phase and are temporary static gestures that function to retain the meaning of the stroke whilst co-ordinating with speech. These gesture phases collectively make up a gesture phrase. In this thesis, the purpose of analysing gestures is to determine how teachers manage dialogic space during their lessons. As such, breaking down the gesture phrases into phases is not necessary. For instance, whether a teacher goes through the optional retraction phase or not does not affect the analysis on management of dialogic space. Therefore, the unit of analysis is the gesture phrase – the preparation, the stroke and the optional retraction phase.

The analysis of gestures draws primarily on the work of Hood (2011). Gestures within this framework refer mostly to the movement of the hands, either in supine or prone position, although Hood reports the use of the oscillating head, for example, in entertaining students' answers. Expanding on the system of Appraisal to gestures, Hood posits a system network for gestures that convey interpersonal meanings for the sub-systems of ENGAGEMENT: heterogloss and GRADUATION: force from her study of tutors in higher learning institutions. Hood's study focused on the epilinguistic body language. This is a good fit theoretically – the Appraisal system for the analysis of speech as described earlier unhinges the interpersonal resource from the system of lexicogrammar, in much the same way as the epilinguistic body language. For the purposes of this thesis, only the Engagement system is adopted as this is particularly useful in showing how teachers manage dialogic space using gestures.

In contracting dialogic space, Hood found that the teachers in her study displayed prone body positions, mostly of the hands, where the palms are turned downwards. Supine body positions such as of the hands,

conversely expands dialogic space by inviting others' views with palms facing upwards. Gestures that oscillate between supine and prone body positions indicate entertaining of alternative views or possibilities. This is mostly realised by an oscillating hand or head. The three teachers in this study used mainly their hands in supine or prone positions.

Figure 4.7: Engagement system of network for body language (Hood, 2011, p. 48)



Nevertheless, in attempting to use Hood's Engagement system for body language, care has to be taken that the classroom context of Hood's study involved teachers in higher education while my research focuses on primary school teachers. To mitigate the effects of the differences in contexts and its subjective nature, analysis of gestures will be carried out using both the bottom-up approach and the top-down approach. The top-down approach would be beneficial in exploring whether there is a good fit between the video data of this research and that of Hood's engagement system. The bottom-up approach would reveal other gestures, if any, that function to expand or contract dialogic space. These gestures are primarily made using the hands but could extend to head positioning such as facing students or facing the big book, where the clarity of the video permits. By the careful analysis of data using the two approaches, a comprehensive

account of how teachers use gestures to engage their students could be produced.

One aspect of the Engagement system for gestures that has not been explored by Hood is the gesture for monogloss and it may be interesting to note whether there are gestures that are monoglossic. The presence of such gestures would reveal the meaning making resources that teachers use in managing dialogic space and would be relevant to the aims of this thesis.

To explore the harmony or discord in the meanings made by the teachers' gestures and speech, the gesture analysis by Hood (2011) is compared with the speech analysis by Martin and White (2005). Although both frameworks are based on the Appraisal system, there is a slight difference that needs to be addressed before comparisons between the analysis of the two modes could proceed. In the framework by Martin and White, the option [expand: entertain] includes expressions of modality such as perhaps and maybe; and expository questions whereas in Hood's framework, the gestures for entertain in expressing modality and inviting contribution form two categories. This differentiation lies in the different realisations of entertain and invite in gestures – the former with a supine position hand and the latter involves the oscillating movement of the hand or head. As such, where the option [expand: entertain] is analysed in the spoken language of the teacher, this could be realised in either of the two ways mentioned earlier in gestures.

4.4.2.2.1 [Computer software for analysing gestures](#)

The analysis for this thesis occurs in stages beginning with the linguistic mode followed by gestures. In analysing the linguistic mode, Nvivo 10 was chosen due to its powerful query capabilities. Unfortunately,

although Nvivo 10 promised new capabilities in the analysing of video files to facilitate analysing of gestures for example, the clumsy manner in which users are required to tag video timelines to the transcript is a source of many complaints, and at the time of writing, remains to be so (see for example, <http://forums.qsrinternational.com/index.php?showtopic=4037>). Users are required to insert the time stamp column line by line. As each line is completed, the line in question will be moved to the end of the transcript, requiring users to scroll back to the top to insert the timestamp for the consecutive line. Because timestamps are important in ascertaining the frequency and duration of the gestures in the video data, an alternative software is needed to ensure that this data could be captured and presented easily.

The Multimodal Analysis software provides a solution for this in that the coding of the video data is carried out without having to assign time stamps. This is done by inserting coding blocks for the different semiotic resources into pre-assigned strips along a time line while playing the video as shown in Appendix 5. This was done for the teachers, represented by blue coding blocks, and students, represented by the red coding blocks. As such, it is possible to view how the semiotic resources of speech and gestures were used – either simultaneously or one after another.

Apart from this, another benefit of using this software is that the results are easily exported to an Excel spreadsheet for analysis (see Appendix 7). The results can be filtered according to the different semiotic resources, the participants – either the teachers or students or the different lessons. In the sample shown in Appendix 7, the first four columns serve to describe and identify the results. The first column 'Analysis' is the name of the lesson identified by the title of the big book read during the lesson; the second column 'Tab' described the participant, the third column

'System name' describes the semiotic resource used; the fourth column 'Body part' is the body part used in the gesture; the fifth column 'Hand gesture' describes the gestures Ms Gan used during her lesson followed by three columns with the start time of the gesture, the end time of the gesture and the duration of the gesture. This table captures valuable information such as the range of gestures used by the teachers and the duration of each gesture.

4.5 Conclusion

This chapter begins with a description of the ontological, epistemological and methodological approaches of this research. This qualitative research sits within the interpretivist and constructionist paradigm. This is followed by a discussion of the sources of data, data collection procedures and the selection of data. Data analysis is carried out in three stages: the curriculum genres and macrogenres; speech analysis followed by the gesture analysis as shown in Table 4.9 on page 116.

The next chapter comprise the analyses of the curriculum macrogenres followed by the lesson genres and microgenres in order to select the data from the larger data set available from the funded project "Curriculum Implementation in Early Primary Schooling in Singapore".

Table 4.9: Summary of analyses

No.	Analysis	Theoretical framework	Purpose	Chapter/Section
1.	Curriculum genre/ macrogenre	Christie (2002)	To select data from the larger data set available for analysis in a principled and systematic manner	Chapter 5
2.	Speech	Mood analysis (Halliday, 1994)	To explore social roles between teachers and students	Chapter 6, Section 6.2
3.	Speech	Appraisal analysis (Martin and White, 2005)	To determine how teachers expand or contract dialogic space	Chapter 6, Section 6.3
4.	Speech and gestures	Speech function analysis (Egins and Slade, 2006)	To explore how teachers extend their interactions with students in expanding dialogic space or otherwise.	Chapter 7, Section 7.5
5.	Gestures	Hood (2011)	To explore how gestures are used to expand and contract dialogic space.	Chapter 7, Section 7.2 and 7.3
6.	Gestures	Bottom-up approach, following Lim (2011)	To explore other gestures than those identified by Hood (2011) used by teachers in the management of dialogic space	Chapter 7, Section 7.4
7.	Space	Matthiesen (2009) and Hall (1966)	To explore how space is used by teachers to mean interpersonally	Chapter 5, Section 5.3.2

CHAPTER 5 : CONTEXTUALISATION OF LESSONS

5.1 Introduction

The aims of this chapter are two-fold. Firstly, it aims to locate the lessons within the curricular unit following Christie's work (2002). This would allow for the systematic selection of the data as explained by Christie: "the notion of curriculum genre is useful because it provides a principled basis for making selections of classroom text for analysis and interpretation" (2002, p. 22). Secondly, it seeks to describe the learning contexts of the selected lessons using O'Halloran's constructs of Lesson Genres and Microgenres (2004). Throughout this analysis, Bernstein's notion of classification and framing will be applied to the data to illuminate the social roles of teachers and students. A brief outline of classification and framing is offered in Section 3.5.2.

Before proceeding, a brief description of the three lessons is apt at this juncture. As mentioned in Chapter 4, the three lessons are all based on STELLAR, a mandatory literacy programme designed by MOE for primary schools. These three lessons have been chosen because they are at the same phase of STELLAR - SBA1 (see section 1.2.7), which is the introduction of a big book at the start of a new curriculum unit. Further, these big books are of the same genre- the narrative genre.

For ease of reference, throughout this thesis, the three teachers will be addressed using their pseudonyms: Ms Fong, Ms Gan and Ms Naima. The teachers and the corresponding big book introduced in their lessons are shown in Table 5.1.

Table 5.1: The three teachers and their corresponding Big Books

Teachers (psuedonyms)	Title of big book
Ms Fong	The Fisherman and His Wife
Ms Gan	The Growl
Ms Naima	There's A Nightmare in My Closet

5.2 Curriculum Macrogenre

As mentioned in Chapter 1, the present study is based on STELLAR lessons that are organised in stages (see Figure 1, Chapter 1). The curriculum macrogenre of STELLAR lessons constitutes a curriculum unit of STELLAR lessons anchored on one big book. Because of the unidirectional and incremental learning in STELLAR, a linear curriculum genre best describes the progression of STELLAR lessons as opposed to the orbital curriculum genre. Christie (2005) proposes a linear macrogenre represented as follows (the '^' indicates the order of the macrogenre in sequence):

Curriculum Initiation^Curriculum Negotiation/ Collaboration^Curriculum Closure

Adapting this, the following linear macrogenre is offered to reflect the unique characteristics of STELLAR lessons:

Curriculum Review^Curriculum Initiation^[Curriculum Negotiation^Curriculum Application]^*^Curriculum Negotiation^Curriculum Collaboration^Curriculum Consolidation

The ‘*’ indicates sequence of events and the sequence of stages within the brackets are recursive. In proposing this curriculum macrogenre, it is acknowledged that it is based on my own experience as a lower primary teacher and observations of STELLAR lessons and is therefore not a representative description of all STELLAR lessons. The stages of the curriculum macrogenre correspond to the phases of STELLAR as shown in Table 5.2.

Each of the Curriculum Macrogenre will be explained in the following paragraphs. For the Curriculum Macrogenres that are in Phase SBA1 of STELLAR, examples from the three lessons selected will be given. Curriculum Macrogenres that do not fall within SBA1 will be discussed briefly in relation to the larger data set of English lessons.

According to Christie (2002), the purpose of Curriculum Initiation is to introduce students to the field of instruction, setting goals and evaluation criteria whilst positioning students to particular ways of thinking and working within the said field of instruction. For the lessons observed in this study, however, the goals and evaluation criteria of the curriculum unit were not explicitly communicated to the students. This could be due to the age group of the students where curriculum objectives are usually broken down and introduced right before each lesson instead of being presented at the beginning of a curriculum unit. Based on this, the phase SBA1 of STELLAR is presented as the curriculum macrogenre of Curriculum Initiation, where teachers conduct tuning-in activities. These activities serve to introduce students to the content of the big book, that is the field of instruction, and prepare students to think about this field of instruction in particular ways by, for example, activating their prior knowledge and making links with the anticipated new knowledge. The tuning-in activities were carried out by two out of the three teachers in this study. One of the

teachers, Ms Naima, read a poem and showed a video clip of the popular movie ‘Monsters Inc.’ prior to reading the book “There’s a Nightmare in my Closet” whilst Ms Fong used a hand puppet of one of the characters in the Big Book, a golden fish, to get students excited about the story that they were about to read.

Table 5.2: Stages in Curriculum Macrogenre

Stages in Curriculum Macrogenre	Lesson Genre	Phases in STELLAR	Explanation
Curriculum Review	Preliminary Lesson Genre	SBA 1- Re-reading of a Big Book from earlier lessons	Teachers and students re-read Big Book together to increase fluency
Curriculum Initiation	Preliminary Lesson Genre	SBA1 - Tuning-in	Teachers introduce Big Book, ask questions to activate students’ schema and relate the story to their past experiences
Curriculum Negotiation	Main Lesson Genre	SBA 1 -First reading	Teachers read Big Book while asking students questions about the story
Curriculum Application	Follow-up Lesson Genre	SBA 1 - Activity	Teachers ask students to do an activity based on the Big Book
Curriculum Negotiation	Main Lesson Genre	SBA 2 - Second Reading	Teachers and students read Big Book together
Curriculum Application	Follow-up Lesson Genre	SBA 2 - Activity	Teachers ask students another activity related to the same Big Book

Curriculum Negotiation	Main Lesson Genre	LEA - Shared experience and Class Dictated Story	Teachers and students talk about and share ideas about a particular topic related to the Big Book and construct a story together as a class
Curriculum Collaboration	Follow-up Lesson Genre	LEA - Individual writing	Students write another story individually
Curriculum Consolidation	Main Lesson Genre	Learning Centres - Activity	Teachers set up learning centres where students do various activities, taking turns in rotation.

The Curriculum Negotiation macrogenre involves the completion of a task by teachers and students; in this case, the reading of the big book at the SBA1. At this phase, teachers read the big books to students, pausing when necessary to ask questions or make comments. The purpose of this phase is mainly for students to enjoy and have a global understanding of the story. This is usually followed by the Curriculum Application macrogenre where the students are given a follow-up task that is based on the book. Ms Naima asked her students to draw their nightmares, following the reading of a big book on nightmares; Ms Gan gave students crossword puzzles to complete based on the words they came across in the book and Ms Fong's lesson ended just as they finished reading the big book and therefore any activity that she may have planned for her students was not included in the video data.

The Curriculum Macrogenre of the next phase, SBA2, is realised by the lesson genre 'Second Reading'. This involves a second reading of the

big book with emphasis on the grammatical features found in the text, specific vocabulary and certain skills. Drawing from the larger data set, one teacher, after the second reading of a book, focussed on verbs and asked students to pick out the 'action words' from the story. Following this, the lesson genre of 'Activity', involves some application of the knowledge gained from the earlier 'Second Reading'. For example, Ms Gan organised a game similar to 'charades', where a student from one group performed an 'action word' chosen from an envelope and the other students had to guess the word.

The Curriculum Macrogenre of the LEA phase of STELLAR comprise the lesson genres 'Shared Experience' and 'Class Dictated Story'. During 'Shared Experience', teachers set students tasks to complete that are hands-on such as going on a field trip or making a sandwich. These tasks relate to the big book in some way, expanding students' experience and in turn, enhancing their understanding of the field of instruction. This experience leads on to the lesson genre 'Class Dictated Story' where teachers and students re-create the experience together, with the teacher leading the discussion and then writing out the story on a big piece of paper. Again, drawing from the larger data set, Ms Gan's enactment of the lesson genre 'Shared Experience' involved a trip to the zoo and creating dioramas of the animals students saw at the zoo during their Art lesson. The practice of carrying out STELLAR related tasks during Art lessons is common in early childhood curriculum where there is a weak classification of knowledge (Bernstein, 1974) such that boundaries between subject areas often blend into each other. Even though the curriculum hours in school are planned in half-hour to forty-five-minute slots with the assigned subjects clearly stated, it is usually the case that lower primary teachers are form teachers of their classes and teach most

of the subjects. This facilitates the weak classification of knowledge as teachers seek to connect one domain of subject area to another using the themes in the Big Book as the anchor.

In the Curriculum Macrogenre 'Curriculum Collaboration', the teacher plays a supporting role while students complete the writing task set individually or in groups. There are no lessons exhibiting this lesson genre in the data set.

Christie's work (2002) is invaluable in showing the importance of considering curriculum macrogenres in analysing classroom data, highlighting how the nature of pedagogic discourse changes through the stages of macrogenres as teachers work towards equipping students with the knowledge and skills required to complete some task independently at the end of the macrogenre. Christie asserts the necessity of considering the full cycle of curriculum activity in order to draw conclusions such as how students learn over time and how teachers work towards promoting students' understanding, highlighting the dangers of analysing discrete lessons in isolation without considering their respective stages in the macrogenre and the lesson genres. The laborious collection and analysis of data of such a grand scale, however, is a massive undertaking for a lone researcher. Indeed, Christie acknowledged the difficulty involved in recording and transcribing classroom talk for such long periods of time. Studies that employ Christie's framework of curriculum macrogenres circumvent this in varied ways. Lim (2011) analysed two lessons that are located within the same curriculum genre and made comparisons between the multimodal pedagogic discourses of each based on the similar learning outcomes of these lessons. Jones (2005) analysed four lessons at differing stages of the curriculum macrogenre to show how teachers 'handover' knowledge and skills to their students. These studies have

shown the usefulness of the notion of curriculum macrogenres when applied to the analysis of lessons that form only part of the full cycle of curriculum activity.

Following Lim (2011), the three lessons selected for this research study are from the same curriculum macrogenre of SBA1. Although the Big Book titles are different for all three lessons, the curriculum objective for this stage is the same - reading for understanding and enjoyment. The details of the three lessons are shown below:

Table 5.3.1: Details of the three selected lessons based on a similar stage of curriculum macrogenre

Name of teacher (pseudonym)	Big Book title	Length of video (hh:mm:ss)
Ms Gan	The Growl	00:53:47
Ms Naima	There's a nightmare in the closet	01:10:37
Ms Fong	The Fisherman and his wife	00:46:29

The Curriculum Negotiation stage is chosen because this is the stage where the teachers' use of multimodal semiotic resources is most evident. The whole-class discussions at this stage also illuminated the teachers' enactment of social roles as they engaged in pedagogic discourse. As stated earlier, at this stage, the objective is for students to enjoy and understand the story read to them.

5.3 Lesson Genres and Microgenres

Instead of providing generic structures of English lessons, a list of lesson genres and microgenres is put forth, following O'Halloran (1996, 2004). This is so that the "actual text structure is described by the

sequence of these microgenres realising the lesson” (O’Halloran, 1996, p. 57). The register analysis takes into account the curriculum macrogenres and their respective register variables of field, tenor and mode.

The lesson microgenres proposed by O’Halloran (1996) are derived from Lemke’s (1990) notion of Activity Types. Activity Types are patterns of behaviour of teachers and students during lessons. Lemke (1990) describes his Activity Types in both structural and functional terms; for example, Teacher monologue and Teacher-Student Debate are structural whereas Review and Going over Homework are functional. Lesson microgenres as conceptualised by O’Halloran (1996), however, are all functional categories as shown in Chapter 4.

For the purposes of this research, O’Halloran’s Lesson Genres will be narrowed to the six categories that are relevant to the present data. These are: Pre-Lesson Genre, Preliminary Lesson Genre, Main Lesson Genre, Closure Lesson Genre, Interpolated Lesson Genre and Interpolated Disruptive Lesson Genre. The first four Lesson Genres occur in sequence whilst the Interpolated Lesson Genre and Interpolated Disruptive Lesson Genre may emerge during any of the Lesson Genres. Pre-Lesson Genres take place at the start of the lesson and involve the setting up audio visual equipment, organising students in preparation for the lesson which include student movement from one place to another and informal conversation between teachers and students. Due to the different timings of the recorded lessons, the varying needs for preparation for the planned activities and the teachers’ predisposition to engaging in casual talk with their students, highly variable configurations of this Lesson Genre are expected. The Preliminary Lesson Genre and Main Lesson Genre form the main pedagogical activities documented in curriculum documents; therefore, less variation is to be expected. During the Preliminary Lesson

Genre, teachers carry out varied tuning-in activities designed to activate students' prior knowledge of the Big Book to be read in the Main Lesson Genre. In addition, this Lesson Genre also includes the re-reading of a Big Book from a past lesson. The Main Lesson Genre comprises the main pedagogical activity of SBA1 which is reading of a new Big Book interspersed with teacher-student discourse. In the Follow-up Lesson Genre, students participate in activities that are related to the Big Book covered in the Main Lesson Genre. In the Closure Lesson Genres, teachers conclude the lesson by way of summarising or reviewing the main learning points. Interpolated Genre interrupts the on-going Lesson Genres, usually realised by Lesson Microgenres featuring interactions between teachers and students or management of behaviours by teachers. The Lesson Microgenres proposed here vary from those conceptualised by O'Halloran, possibly due to the different age groups of the students involved — O'Halloran's research was carried out in a secondary school whereas the present research involved primary school students. The Lesson Microgenres and their respective descriptions are listed in Table 5.4.

Table 5.4: The Lesson Microgenres (adapted from O'Halloran, 2004)

1.	Behavioural Management: Management of students' behaviour during lessons. This includes handling of student disruptions and student misbehaviour.
2.	Individual Seat Work: This happens when students are assigned tasks that are attempted individually at their desks.

3.	Student Interrupted Comments: Interruptions by students to the on-going Lesson Genre. These are usually comments or questions about the story being read.
4.	Teacher Exposition: Teacher explanation of some aspect of the lesson and is part of instructional discourse.
5.	Teacher Interrupted Comments: Interruptions by teachers to the on-going Lesson Genre. These interruptions comprise of comments on the task, encouraging words to students to remain on-task or further instructions for the task assigned.
6.	Teacher Modelling (Reading): Teacher reads aloud to students to model intonation, word pronunciation etc.
7.	Transition to new activity: This occurs at the start of a new lesson genre. The transition to a new activity involves the physical movement of students and/or teacher instructions for expected behaviour or how to complete the assigned task.
8.	Video Screening: Use of video clips during lesson.
9.	Whole-class Discussion: This happens when teachers lead a whole-class discussion.
10.	Whole-class Reading: Students read in chorus as a class.
11.	External Disruption: Disruption from outside the classroom affect the lesson genre.

While most of the Lesson Microgenres are not confined to particular Lesson Genres, a few Lesson Microgenres are associated exclusively with the Interpolated Disruptive Lesson Genre and Interpolated Lesson Genre. Transition to new activity, Teacher Interrupted Comments and Student Interrupted Comments belong to the Interpolated Lesson Genre while External Disruption and Behavioural Management belong to the Interpolated Disruptive Genres. These Lesson Microgenres appear during any of the Lesson Genres and for the latter, tend to be disruptive in nature.

In order to understand the structures of the three lessons, a register analysis in consideration of the field, tenor and mode of the lessons is carried out. This analysis is expected to reveal four things. Firstly, it would show shifts in the learning contexts as the lessons progressed, indicating the different configurations of the lessons. Secondly, the way teachers weave the instructional discourse, regulative discourse and social semiotic discourse can be made apparent based on the type of discourse being foregrounded within the different schematic structures. Thirdly, it would also show the kind of pedagogy adopted by the teacher (i.e., visible or invisible pedagogy), following Bernstein's concepts of framing and classification (1975, 1990). Lastly, due to the micro analysis proposed for this research and the length of video data, it was necessary to narrow this further for analysis by selecting one stage of the Lesson Genre where teacher-student interactions were most obvious.

5.3.1 Field

Field is described in terms of 'what is going on'. This is determined by the language choices made in the experiential metafunction and lexis. Since the analysis of field is crucial in understanding the kind of pedagogy implemented by the three teachers, an analysis that captures the movements between the fields as it unfolds in the multimodal pedagogic

discourses is proposed. According to Halliday (2002 [1977]), field can be in the first or second order field of discourse when language plays a constitutive role, where “interactions (are) defined solely in linguistic terms” (Halliday, 2002 [1977], p. 56) and “subject matter” is then an element of the field. Using Halliday’s example, in a discussion of a game of football, the discussion is the social action and is the first order of the field. The football game is brought into existence only through the discussion and therefore represents the second-order field of discourse or the “subject-matter”. When language is ancillary to the social action, only the first order field of discourse applies. Referring to the example of the football game given by Halliday, a player, who is playing football, shouts out some instructions about the game to another player. In this instance, language plays an ancillary role to the social action of playing the football game and thus, in this situation, only the first order field of discourse applies.

Following this, the Main Lesson Genre presents complexities due to the range of semiotic resources involved at this stage. The discussion that ensues intermittently during the reading of the Big Book prompts the close examination of the use of the other semiotic resources in determining the field of discourse as first or second order. When the teachers hold a discussion about the Big Book (and by extension, the semiotic resources of words and images of the Big Book), the Big Book is deemed not to have been ‘brought into being’ by language as its material form is present within the context of situation. Therefore, language is considered to be ancillary to the social action of reading the Big Book. As such, in these instances, only the first-order field of discourse is relevant – discussion about the Big Book including the written words and images.

This is accompanied by an analysis of the pedagogic discourse highlighting the kinds of discourses foregrounded. As explained in Chapter

1, the pedagogic discourse is realised in the regulative discourse and the instructional discourse. Martin (1999) introduces a second instructional discourse, the social semiotic instructional discourse, to project instructional discourse in which “explicit knowledge about text in social context” (p. 143) is the pedagogic focus. Examples of this include highlighting the linguistic choices made by authors in consideration of their readers and the composing of a text according to its genre. Another dimension of the instructional discourse is proposed here - the multimodal instructional discourse. This serves to document the instructional discourse that centres on multimodal literacy to develop students’ understandings about how the various semiotic resources work together in a text. The analysis of the regulative discourse (RD), the instructional discourse (ID), the social semiotic instructional discourse (SSID) and multimodal instructional discourse (MMID) reveal ways in which teachers construct students as pedagogic subjects and achieve intersubjectivity.

The RD is foregrounded in instances when the teachers gave instructions for a task or issued imperatives in managing student behaviours. The ID is foregrounded when teachers teach curricular content.

5.3.2 Tenor

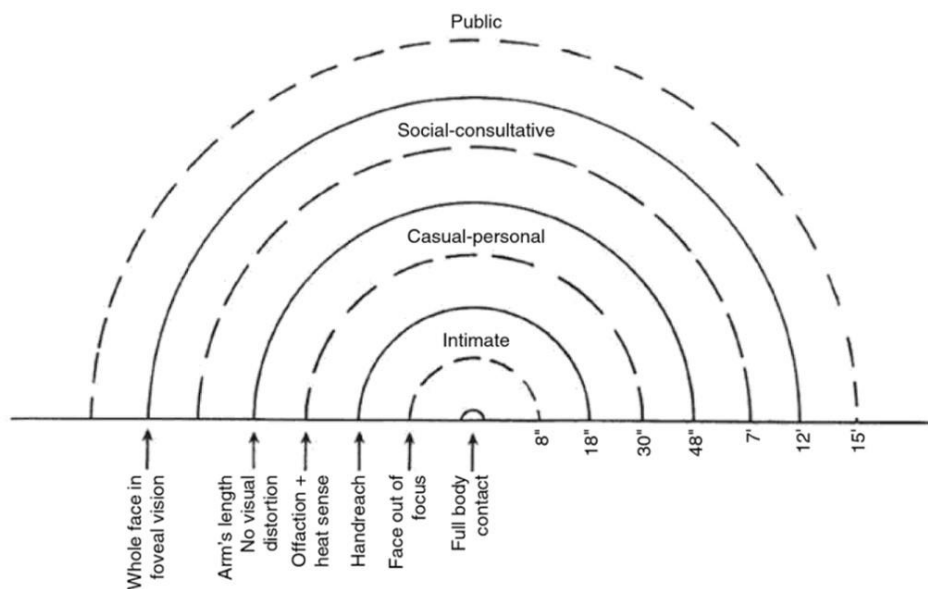
Tenor has to do with the social relationships between participants and is realised through the interpersonal metafunction (Martin, 1992). Tenor is analysed within the parameters of Status, Contact and Affect from the work of Poynton (1985) . Status reveals the power relations between participants and is described as ‘Equal’ or ‘Unequal’. The status between teachers and students are largely ‘Unequal’, although there are instances of ‘Equal’ status during the Lesson Microgenre of informal conversations. Contact refers to “the degree of institutional involvement” (Martin, 1992,

p.523) and is determined to be either 'distant' or 'involved', depending on the frequency and manner of contact. Because the teachers and students are in contact on a daily basis, Contact is interpreted to vary in terms of the manner of contact. For example, the Lesson Microgenre of 'informal conversation' is analysed as 'involved' as opposed to the Lesson Microgenre of 'teacher exposition', which is 'distant'. Affect is best described as the emotional climate of the environment and can be either Positive, Negative or Neutral. According to Martin (1992), Affect is realised in amplification and is being compared to a stereo system that can be "turned on or off and balanced between speakers" (p. 53). Affect is determined to be Positive, Negative or Neutral in terms of the rate of speech and the loudness of voice. Lesson Microgenres of 'teacher exposition' are analysed as Neutral Affect. Positive Affect occurs during Lesson Microgenres of 'informal conversations' and Negative Affect is evident in some of the Lesson Microgenres of behaviour management.

As part of Tenor, Hall's (1968) research, collectively called 'proxemics', provides another layer of analysis that is relevant to this thesis. His careful mapping of material distance, formally in inches and feet and informally in five categories: kinesthesia; thermal receptors; olfaction; vision; and oral and aural against four distance markers of intimate, personal, social-consultative and public. Matthiesen (2009) developed the work of Hall (1966) on distance sets to show how material distance is a social semiotic resource – that is, the material distance between two (or more) participants is a resource for making meaning. Matthiesen calls this the interpersonal distance where the visual and aural contact plays a part in determining the tenor relationships between participants. The more intimate the relationship, the closer the material distance and by extension, the interpersonal distance. Face to face

interactions offer the widest channel of communication as the maximal range of interpersonal meanings can be expressed through the face; it being a key resource for interpersonal meanings (Matthiessen, 2009). Although facial expressions are not investigated in this research study, the material distance between teachers and students in the various organisational structures of the teaching and learning activities in relation to the use of space (i.e., whole-class discussion vs. individual seat work) provide a further avenue for investigation.

Figure 5.1: Hall's distance sets (reproduced from Matthiessen, 2009, p.27)



Apart from the material distance, Hall's kinaesthetic, visual and aural informal descriptors will be applied to determine the kind of interaction space between teachers and students as depicted in Figure 5.1. At this stage of the analysis, Hall's terms: intimate, personal, social-consultative and public, will be used to give a further dimension to the Tenor analysis. It is evident that the consideration of other semiotic resources, in this case, the use of space, results in a blurring between the registerial configurations of tenor and mode.

5.3.3 Mode

According to Matthiesen (2009) and Martin (1992), Mode is described in terms of Medium (language as spoken, written or signed) and Channel (aural, visual, tactile, olfactory and gustatory). The interaction between Channel and Medium impacts on what Martin called “interpersonal space” (1992, p.510). This is affected by whether the speaker and addressee are within the same interactional space and time. The kinds of communication resulting from face-to-face interactions are likely to be different from interactions that are conducted through the phone. The modalities investigated in the multimodal pedagogic discourse of this research study are limited to the aural and visual modalities.

To preserve consistency in terminology throughout the thesis, Channel is referred to as Modality and Medium is used to describe the material form for which the multimodal phenomena (O’Halloran, 2011) exists such as the white board, big book and the computer screen.

As this thesis intends to explore other semiotic resources beyond language; namely, gesture and space, the detailing of the semiotic resources used by teachers would constitute another dimension of the analysis of Mode and the label ‘Semiotic resources’ is used. It is then possible to describe spoken language as the semiotic resource of language and its modality, aural. The ‘interpersonal space’ mentioned above is then at the interface of semiotic resource, modality and medium. Even though space could arguably be included as one of the semiotic resources considered in Mode, within the limits of this thesis, space is related exclusively to the interpersonal aspect and therefore would be confined to the Tenor analysis.

5.4 Lesson Genres and Microgenres in the three lessons

The transcripts of the three lessons by Ms Fong, Ms Gan and Ms Naima were divided into clauses, the unit for which the lessons are being investigated. There are 1007, 1011 and 1466 clauses in Ms Fong's, Ms Gan's and Ms Naima's lessons.

Despite the highly structured nature of the STELLAR programme, the variation in the Lesson Genres found in the three lessons suggests a 'loose' interpretation of curriculum documents by the teachers as seen in Figure 5.2, where the X-axis represents the number of clauses and the Y-axis represents the various Lesson Genres; namely, Pre-Lesson Genre, Preliminary Lesson Genre, Main Lesson Genre, Follow-up Lesson Genre and Closure Lesson Genre. These Lesson Genres represent the sequential order for which they are found in the lessons.

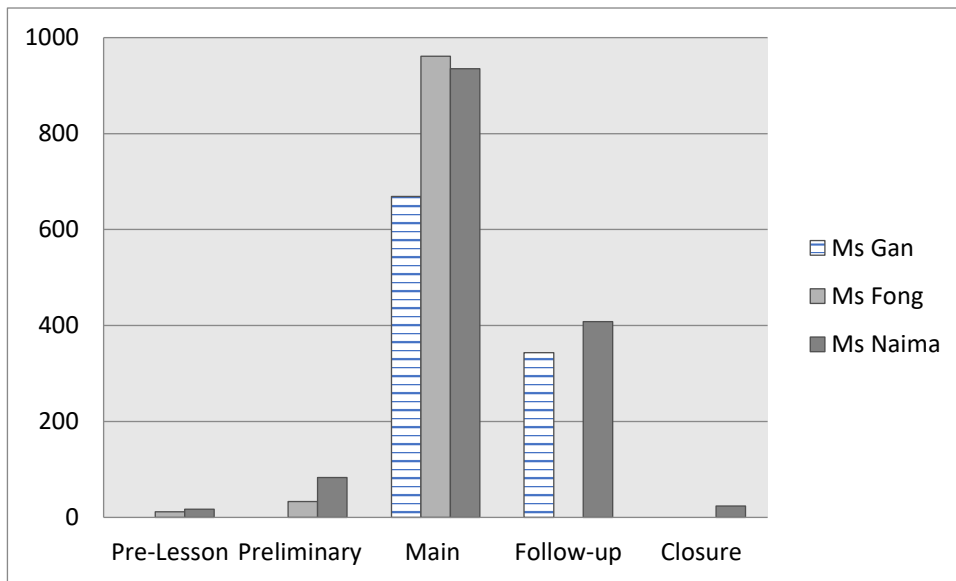
With the exception of Ms Gan, both Ms Naima and Ms Fong carried out tuning-in activities in the Preliminary Lesson Genre. In the same Lesson Genre, only Ms Naima re-read an earlier Big Book chosen by the students. Both Ms Naima and Ms Gan carried out activities in the Follow-up Lesson Genre whereas Ms Fong ended her lesson after reading the Big Book at the Main Lesson Genre. The Main Lesson Genre makes up the largest category of Lesson Genres – 961 clauses in Ms Fong's lesson, 669 clauses in Ms Gan's lesson and 935 clauses in Ms Naima's lesson. The next largest category of Lesson Genres is the Follow-up Lesson Genre in Ms Gan and Ms Naima's lessons – 343 and 408 clauses respectively.

The Interpolated Lesson Genre and the Interpolated Disruptive Lesson Genre are not represented in Figure 5.2 as these interrupt the different Lesson Genres and therefore are found within the five categories

shown. To represent these Lesson Genres, three bar graphs in Appendix 1, 2 and 3 show the interruptions that make up the Interpolated Lesson Genres to the on-going Lesson Genres.

The bar graphs in Appendix 1, 2 and 3 represent Ms Fong's, Ms Gan's and Ms Naima's Lesson Genres and characterise the learning contexts of the three lessons. The interruptions of the Interpolated Lesson Genres suggest the lack of cohesiveness and stability in the structure of the lessons (O'Halloran, 2004). The Interpolated Disruptive Lesson Genres in Ms Fong, Ms Gan and Ms Naima's lessons number 8 clauses, 86 clauses and 74 clauses respectively. For Interpolated Lesson Genres, there are 25 clauses, 96 clauses and 79 clauses in Ms Fong, Ms Gan and Ms Naima's lessons respectively. Ms Gan's lesson shows more variation of Lesson Genres than the other two lessons. These interruptions are quite short, most taking up 1 or 2 clauses with the exception of one occasion at the start of the lesson that lasted 23 clauses. It is also worth noting that most of the Interpolated Disruptive Lesson Genres occur during the Main Lesson Genre (72 clauses) rather than the Follow-up Lesson Genre (23 clauses). The reason for this could be due to the social and physical organisation of students during the two Lesson Genres. During the Main Lesson Genre, students were seated on the floor within close proximity to each other but all facing Ms Gan. In contrast, during the Follow-up Lesson Genre, students were seated on individual chairs and tables arranged in rows, a discrete unit occupying an assigned space. To explore this possibility further, the relationship between space and social roles are discussed in Sections 5.4.1 to 5.4.3.

Figure 5.2: Lesson Genres across the three lessons



Although the number of clauses of Interpolated Disruptive Lesson Genres in Ms Naima's lesson is about the same as Ms Gan, there is less variation here. The occurrences of Interpolated Disruptive Lesson Genres in Ms Naima's lesson are during the Preliminary Lesson Genre, Main Lesson Genre and Follow-up Lesson Genre. To explain the high occurrence of Interpolated Lesson Genres in Ms Naima's lesson, the Lesson Microgenres will be examined. Similarly, this will be done to explain the relatively low occurrences of Interpolated Lesson Genres in Ms Fong's lesson.

The Lesson Microgenres of each lesson display a variety of configurations of field, tenor and mode as these are essentially the description of the steps present in the lessons (see Appendix 1). In doing this, Christie (2002) analysed her data at the level of clause. For the purposes of this thesis, however, a clause by clause analysis is not attempted at this stage of the analysis as the purposes of the registerial analysis, as mentioned earlier in Section 5.2, can be achieved by providing broad descriptions of the Lesson Microgenres (see Appendix 4,

5 and 6). The detailed linguistic analysis of clauses will be performed at the next stage, during the analysis of the semiotic resource of language in Chapter 6.

When the Lesson Microgenres of each lesson were examined, it was apparent that there were similarities as well as differences in the three lessons.

5.4.1 Lesson Microgenres: Ms Fong's Lesson

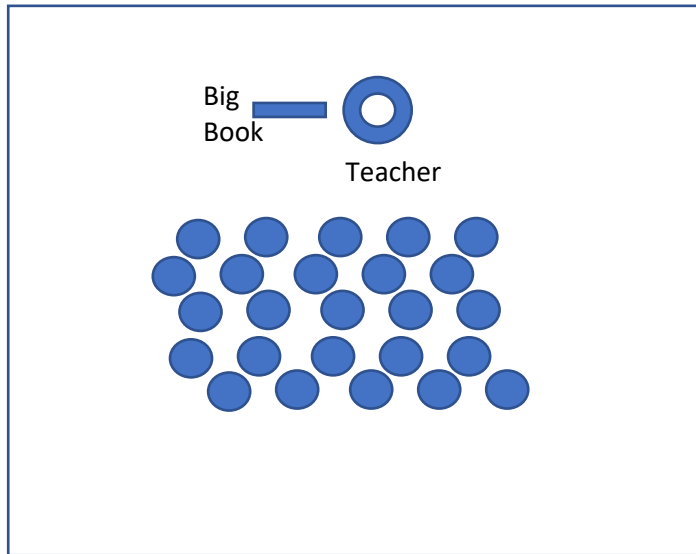
Earlier, Ms Fong's lesson was analysed at the rank of Lesson Genres. Her lesson consisted of the Pre-Lesson Genre, the Preliminary Lesson Genre and the Main Lesson Genre. In between, the Interpolated Lesson Genre and the Interpolated Disruptive Lesson Genre intruded.

Ms Fong's lesson began at the Pre-Lesson Genre, where she organised the classroom in preparation for the Big Book Reading; thus this stage is categorised as the Setting up Equipment Lesson Microgenre. The regulative discourse is foregrounded here as Ms Fong issued commands for students to move things into place, underscoring her authority and therefore unequal status with her students. However, this was kept light by Ms Fong's use of the vocative 'darling' to refer to students and her positive attitude, which are aspects of Tenor. Another aspect of Tenor is the nature of interaction and how space impacts on such interactions. As explained earlier, the distance between teachers and students translates to interpersonal distance (Matthiesen, 2009). Because the teacher-student interactions were largely between a teacher and a group of about thirty students, ascertaining the material distance posed a challenge. Even the descriptors of kinaesthesia and visual provided by Hall (1968) were insufficient to accurately account for the differing distances between the teacher and individual students; for example, between the teacher and the

students in the first row; and the students in the last row as shown in Figure 5.3. Following Hall's criteria for kinaesthesia, a student in the first row would be within the 'personal' space with the teacher whilst a student in the last row would be placed in the 'public' space. Hall's aural descriptors of distance are the most useful for this analysis as the teachers adopted a "loud voice when talking to a group" and they "must raise (their) voice to get attention" in a "formal style" (1968, p. 92), thus placing such interactions firmly in the lower spectrum of Public space. Arguably, however, in classroom contexts, this setting provided the maximum level of intimacy possible in whole-class activities, where students are seated close together in one unit in front of the teacher. While the other two teachers interacted within this space for a part of their lessons, Ms Fong interacted exclusively with her students in this manner during her lesson.

The Preliminary Lesson Genre consisted of the Whole-class Discussion Lesson Microgenre and Behavioural Management. The Whole-class Discussion Lesson Microgenres marked a shift in all of the registerial variables as Ms Fong assumed the identity of a puppet to mirror a character in the Big Book. This is the only Lesson Microgenre for which the status between Ms Fong and her students was 'equal', indicated by a change in her voice when manipulating the puppet. Turn taking was not regulated during this microgenre and the interaction was more informal than the traditional, classroom interactions found in the Main Lesson Genre; hence this Lesson Microgenre can be said to be weakly framed. There is also weak classification as everyday knowledge and school knowledge merged with no clear boundaries. The semiotic resources at play here were the gestures of Ms Fong in manipulating the puppet, her speech and the image on the cover of the Big Book.

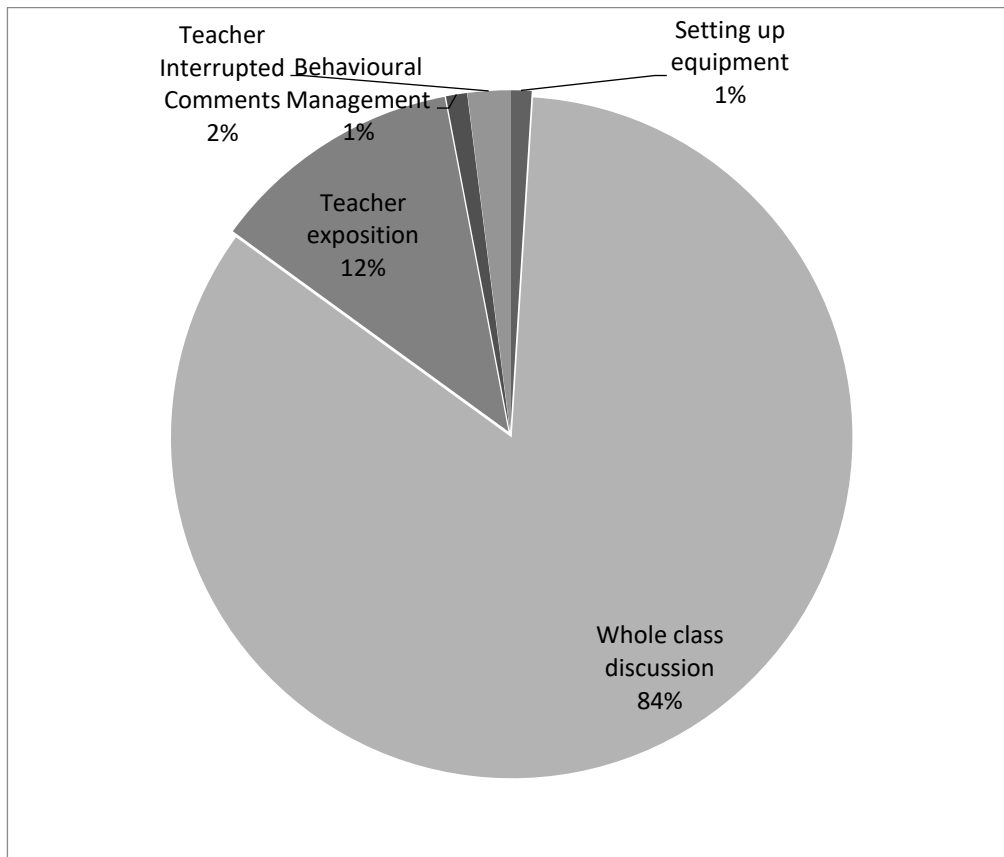
Figure 5.3: Typical teacher-student interaction space during Big Book reading



A change occurred when students started talking over each other, marking the beginning of an abrupt Behavioural Management Lesson Microgenre. Ms Fong used her normal voice to gain control of the situation, placing the puppet aside, clearly demarcating a shift in the lesson. The regulative discourse is again foregrounded here. The semiotic resources that were used by Ms Fong are spoken language, voice quality and gesture.

The Main Lesson Genre comprised of several Lesson Microgenres, dominated by the Whole-class Discussion Lesson Microgenre at 84%, as shown in Figure 5.4. This Lesson Microgenre is mostly conducted in the structure of IRF – initiate, respond and feedback (Sinclair & Coulthard, 1975) where teachers initiate a question, students responded followed by feedback from teachers. This structure is also known as IRE or initiate-response-evaluate (Mehan, 1979) and the triadic dialogue (Lemke, 1990). An IRF sequence in Ms Fong’s lesson is shown in Extract 5.1.

Figure 5.4: Lesson Microgenres in Ms Fong's lesson



Ms Fong initiated with a question, to which SY responded and Ms Fong gave him feedback on his response by acknowledging it through repetition and then evaluating it explicitly with 'very good'. This is, however, just one example of how an IRF proceeded in her lesson. The variations in the way Ms Fong, and the other two teachers, engaged students in the IRF interaction pattern, warrant further investigation and this is discussed in Chapters 6 and 7.

Extract 5.1: IRF Sequence in Ms Fong's lesson

Clause	Speaker	Speaker discourse
402	Ms Fong:	SY, what is he going to do?
403	SY:	Let it go.
404	Ms Fong:	Let it go.
405		Very good.

The Tenor relations were generally Positive with Unequal status. Turn taking was regulated tightly most of the time with Ms Fong electing students to respond to her questions whilst there were occasions where she seemed to encourage students who made unsolicited comments by picking up the content of these comments in her next utterance. At other times, students initiated questions but these were only acknowledged if they had raised their hands. Such a practice indicates strong framing where teacher authority is highly visible. There was very little need for Ms Fong to manage her students' behaviour, evidenced by the low percentage of the Behavioural Management Lesson Microgenre of 1% or three instances for which were related to the managing of turn taking. In the discussion on Ms Gan's lesson in Section 5.4.2, the consequence of a weak framing will be reviewed.

Classification is weak in the Whole-class Discussion Lesson Microgenre, characterised by the links made by both Ms Fong and her students to their prior knowledge or experiences. This readiness to apply students' personal experiences in her lesson is not unique to Ms Fong but the high incidence suggests that she was more open to such fluid movement between school knowledge and everyday knowledge. Her use of the puppet further supports this claim, where students' home experiences of playing with toys merge with their school experiences.

Ms Fong employed several semiotic resources in delivering her lesson during the Main Lesson Genre: gesture, spoken language, written language and image in the Big Book. The written words in the Big Book had been covered with paper prior to the lesson. When Ms Fong first introduced the book to her students, only the images were visible. By doing this, Ms Fong focussed their attention on the images for them to predict the title of the book, the feelings of the characters and the events in

the story, as shown in Extract 5.2. While Ms Fong made many references to the images, she did little in the way of teaching multimodal literacy skills or Multimodal Instructional Discourse (MMID).

Ms Fong asked the first question while pointing to an image in the Big Book. When SJ appeared unable to respond to the question ‘what’s happening here?’, Ms Fong simplified her question by pointing to the fish and asking ‘what is that?’ before asking the next question ‘what happen to the fish?’. SJ’s answer at this point proved unsatisfactory as Ms Fong went on to select another student to answer the same question without evaluating or giving any feedback to SJ. This suggests that SJ experienced some difficulty in ‘reading’ the image to answer Ms Fong’s question.

Extract 5.2: Ms Fong’s use of many semiotic resources during the Main Lesson Genre

Clause	Speaker	Speaker discourse
364	Ms Fong:	SJ, what’s happening here? (pause)
365		What is that? (pause)
366	SJ:	A fish.
367	Ms Fong:	A fish.
368		What happen to the fish?
369	Student:	Jumping.

The Teacher Exposition Lesson Microgenre is the next largest category at 12%. Most of this involved the explanation of certain words, phrases or ideas found in the Big Book by Ms Fong. At times, she would do this by setting up hypothetical scenarios that are familiar to students such as students asking their parents to buy a sought-after video game, indicating a weak classification. Framing was, however, quite strong in this

Lesson Microgenre as Ms Fong furnished the definition of the words, sometimes without asking students to contribute. It must be noted, though, that this Lesson Microgenre was not always initiated by Ms Fong. On three occasions, Ms Fong followed-up on student-initiated questions about the meaning of words and/or phrases. The status at this stage remains at 'Unequal' though, as the decision to follow-up on such questions still rested on Ms Fong.

Other Lesson Microgenres contributed very little to the overall Main Lesson Genre. Teacher Interrupted Comments, Informal Conversation and Transition to a New Activity account for less than 3% of the total.

In summary, for the registerial variable Field, Ms Fong's lesson is characterised as being weak in classification as she moved seamlessly between everyday knowledge and school knowledge. For Tenor, Ms Fong's lesson was consistently Positive in Affect, except on three occasions of managing turn taking, for which Affect was Neutral. Turn taking was clearly controlled by Ms Fong, suggesting strong framing. Her Contact with students was largely 'involved' in nature. Interaction space between Ms Fong and her students remained at the lower spectrum of Public space throughout her lesson. For Mode, Ms Fong weaved through the semiotic resources of gesture, voice quality, spoken language, written language and images to communicate to students.

5.4.2 Lesson Microgenres: Ms Gan

Ms Gan's lesson proceeded in two Lesson Genres: the Main Lesson Genre followed by the Follow-up Lesson Genre. At the start of the lesson, students were already seated on the floor with Ms Gan standing in front, centre next to the Big Book, similar to the arrangement found in Figure 5.3. As such, the teacher-student interaction is within the lower

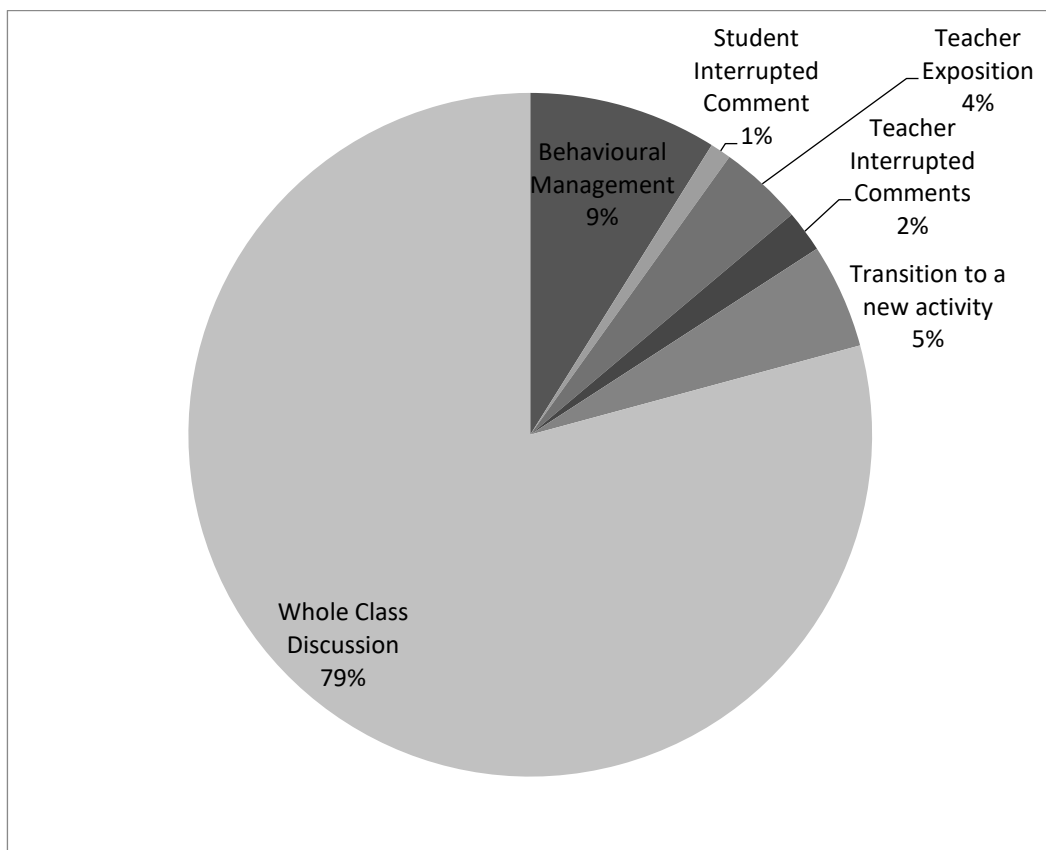
spectrum of Public space during the Main Lesson Genre. Standing in front of the class during SBA lessons is not common although it is not mandated that teachers should sit. This could be due to the numerous times Ms Gan had to discipline her students. In the standing position, she had an eagle's eye view of the whole class making it easier for her to notice errant behaviours and address them.

The Behavioural Management Lesson Microgenre dominated the first 23 clauses of the lesson, where Ms Gan reprimanded students for misbehaviour and for asking permission to go to the washroom. Affect was clearly Negative, Status Unequal and Contact Involved. This set the tone for the rest of the lesson, with this Lesson Microgenre intruding the on-going lesson genre for 23 times at 9% of the total Lesson Microgenres (or 91 clauses), as shown in Figure 5.5. As noted earlier, most of this Lesson Microgenre occurred during the Main Lesson Genre (72 clauses) as compared to the Follow-up Lesson Genre (19 clauses). Most of Ms Gan's Behavioural Management Lesson Microgenre involved the management of noise levels, turn taking or reprimanding students for moving from their positions and fidgeting with something. For 22 out of the total 91 clauses, the reason for Ms Gan's reprimanding was unclear; for instance, "Errm, LH, LH, my third warning. Very likely that you have to stay back today." Ms Gan was directing this at LH, who had done something to earn Ms Gan's disapproval. The lack of specificity on what this 'something' was could be a contributing factor to the high incidence of Behavioural Management Lesson Microgenres as students were not told exactly what was considered inappropriate behaviour to Ms Gan.

While the teacher-student interaction remained within the lower spectrum of Public space, the physical arrangement of students differed in the two Lesson Genres. During the Main Lesson Genre, students were

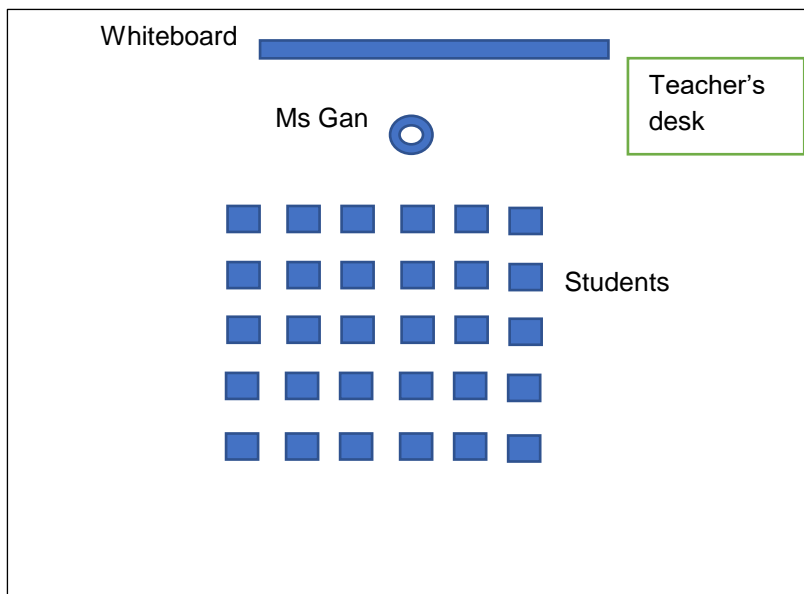
seated in a cluster, close to each other while during the Follow-up Lesson Genre, they were seated at their individual desks to do the assigned task of completing a cross word puzzle, as shown in Figure 5.6. This resulted in a pronounced difference in the number of Behavioural Management Lesson Microgenres at this stage of the Lesson Genre – students were reprimanded for playing with something; for answering rudely; and for standing up and acting out the animals in the Big Book. Without close contact with their peers, the number of times Ms Gan had to discipline her students reduced. Thus, the way students were positioned could also play a part in the high incidence of Behavioural Management Lesson Microgenres, especially during the Main Lesson Genre.

Figure 5.5: Lesson Microgenres during Ms Gan’s lesson



Another contributing factor could be the way turns were allocated in Ms Gan's class. Ms Gan did not consistently nominate students to respond to her questions; instead she opened the floor to anyone who wanted to respond. This resulted in students talking over each other and usually led to Ms Gan raising her voice to gain control of the situation. Framing during Ms Gan's lesson can best be described as alternating between weak and strong. Weak framing is evident when students were allowed to call out their responses without first being selected; strong framing occurs when Ms Gan attempted to regain control of the floor by asserting her authority. The lack of consistency could play a role in the high percentage of Behavioural Management Lesson Microgenres.

Figure 5.6: Teacher-student interaction space during Follow-up Lesson



The semiotic resources employed by Ms Gan during the Behavioural Management Lesson Microgenres are gesture, voice quality and spoken language. Ms Gan's use of voice quality was most obvious during this Lesson Microgenre as she attempted to gain control of the floor by raising her voice and adopting a steely-like quality. Gestures also played a role as she placed her hand on her hip when she disapproved of

something students had done or she pointed at students to show her authority.

Extract 5.3: Whole-class Discussion Lesson Microgenre – Ms Gan

Clause	Speaker	Speaker discourse
358	Ms Gan:	Was it coming from a grizzly bear? <i>It couldn't be a child</i> ¹⁰ .
359		Could it be from a child?
360	Many students:	No!
361	Student:	When you are hungry.
362	Ms Gan:	When you're hungry.
363		How many of you make the kind of sound when you are hungry?
364	Student:	No, my stomach make the sound.
365	Ms Gan:	Your stomach make the sound.
366		Your your stomach is part of you
367		so you make the sound right?
368	Student:	Yeah!
369	Student:	I also make the sound.

The Whole-class Discussion Lesson Microgenre was the largest percentage of Lesson Microgenres at 79% and was characterised by the IRF interaction pattern, similar to Ms Fong's lesson. However, Ms Gan for the most part repeated her students' answers with a rising tone without explicitly evaluating them. For Ms Gan's lesson, Whole-class Discussion Lesson Microgenre occurs at the Main Lesson Genre and the Follow-up Lesson Genre. During both these Lesson Genres, classification was weak,

¹⁰ Words in italics in extracts represent words in the Big Book or other reading material read in verbatim. In this case, the words came from the Big Book M Gan was reading to the class.

evidenced by Ms Gan's encouragement for students to apply their prior knowledge or everyday knowledge to understand the Big Book, as shown in the following extract. Ms Gan was reading a page from the Big Book.

From Extract 5.3, a student made an observation about how his stomach growled like the character in the Big Book when he was hungry. This was received positively and Ms Gan followed up on his observation by asking other students whether they had the same experience.

The semiotic resources used by Ms Gan during the Whole-class Discussion Lesson Microgenre were spoken language, gesture, voice quality, written language and images. The way Ms Gan used the written language and images in the Big Book contrasted with Ms Fong as Ms Gan left the written language uncovered, although the same kind of predicting questions such as 'What do you think will happen?' were asked. Hence, when Ms Gan asked such questions, the written language of the Big Book could be seen by students. Ms Gan's expectations of students 'reading' of the images were therefore much lower than Ms Fong – Ms Gan's students could rely on the written language as well as the images to answer her questions whereas Ms Fong's students had only the images. This impacted on students' learning experience as Ms Fong's students would predictably gain more skills in reading images as opposed to Ms Gan's students. Ms Gan paid very little attention to the explicit teaching of multimodal literacy skills, although like Ms Fong, she made many references to the images in the big book.

To summarise, Ms Gan's lesson can be characterised as weak classification for the registerial variable of Field, as teacher-student interactions moved between everyday knowledge and school knowledge. For Tenor, episodes of Behavioural Management Lesson Microgenre was

intruded the on-going Lesson Genre where Affect was Negative, Status Unequal and Contact Involved. Her Behavioural Management Lesson Microgenre is the highest among the three teachers and this could be attributed to three reasons: the unpredictable alternating of strong and weak framing, her lack of management in turn taking and the way students were physically arranged during the whole-class discussion. Teacher-student interaction was at the lower spectrum of Public space for the whole lesson. For Mode, Ms Gan used the semiotic resources of gesture, spoken language, written language and images to deliver her lesson. During the Behavioural Management Lesson Microgenres, there were apparent changes to her voice quality in attempting to regain control of her students and her use of gestures were designed to show her disapproval of students' behaviours. Her use of images were different from Ms Fong and as we shall see in the next section, Ms Naima. Both the images and written language were visible to students during the Whole-class Discussion Lesson Microgenre in the Main Lesson Genre and consequently resulted in different learning experiences for students in her class and Ms Fong's and Ms Naima's class.

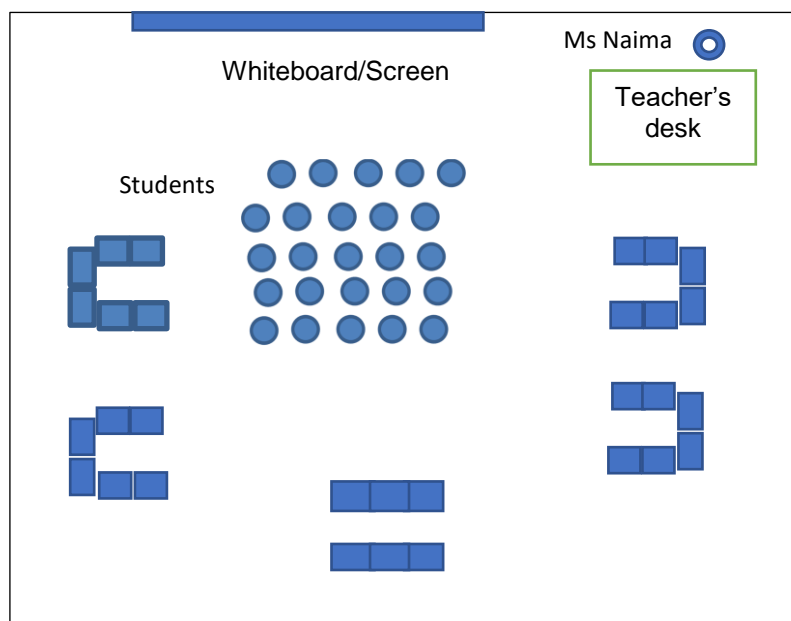
5.4.3 Lesson Microgenres: Ms Naima

Ms Naima's lessons unfolded in the following sequence: Pre-Lesson Genre, Preliminary Lesson Genre, Main Lesson Genre, Follow-up Lesson Genre and Closure Lesson Genre.

The Pre-Lesson Genre comprises the Transaction to a New Activity Lesson Microgenre and Teacher Instructions Lesson Microgenre. The former involved the movement of students from their seats to the floor and organising the classroom in preparation of the lesson.

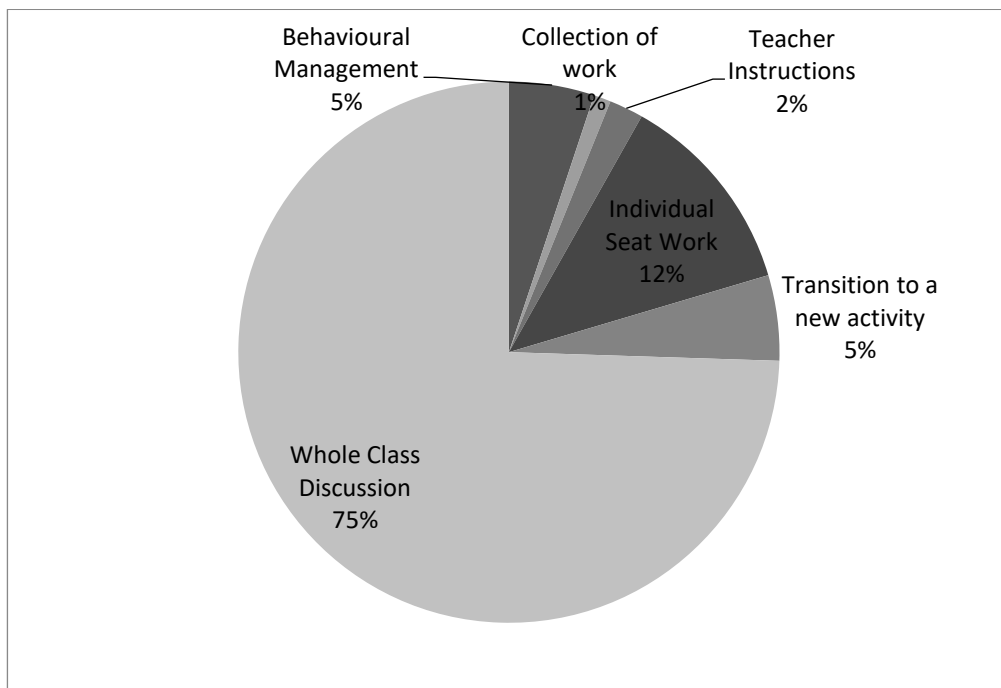
The Preliminary Lesson Genre proceeded with the Whole-class Discussion Lesson Microgenre, Whole-class Reading Lesson Microgenre, Video Screening with Interpolated Lesson Genres of Teacher Interrupted Comments and Transition to a New Activity Lesson Microgenres. This served as the tuning-in activities for the Big Book to be read later in the lesson. This Lesson Genre began with the reading of a poem about a monster followed by a video screening of a clip from the popular movie 'Monster Inc.'. These activities are important in activating students' prior knowledge in anticipation of the 'new' knowledge to be gained during the reading of the Big Book at the Main Lesson Genre. There is weak classification as Ms Naima used artefacts from students' lives outside of school as a bridge to school knowledge. Framing was strong as Ms Naima moved from one activity to another, exerting power over the pacing of the lesson, although this was implicit with the instructional discourse being projected by the regulative discourse.

Figure 5.7: Teacher-student interactions within the higher spectrum of Public space during Ms Naima's Preliminary Lesson Genre



At this Lesson Genre, the teacher-student interaction was within the higher spectrum of Public space. Ms Naima remained standing behind her desk to work on the visualiser and the laptop to display the poem and play the video clip. Students viewed both the poem and the video clip on a screen which could be rolled down to cover part of the white board in front of the classroom. Affect was 'Positive', Status 'Unequal' and Contact 'Involved'. Contact was 'Involved' here as Ms Naima prodded students to make links between what they knew about monsters to the poem and video screening. This was in opposition to 'Distant' in the Pre-Lesson Genre, when Ms Naima was directing students to move from their seats to the floor and giving instructions to the students in preparation for the lesson.

Figure 5.8: Lesson Microgenres during Ms Naima's lesson



As in the Preliminary Lesson Genre, Whole-class Discussion Lesson Microgenre dominated the Main Lesson Genre at 75% of the Lesson Microgenres, which proceeded along with the lesson microgenres

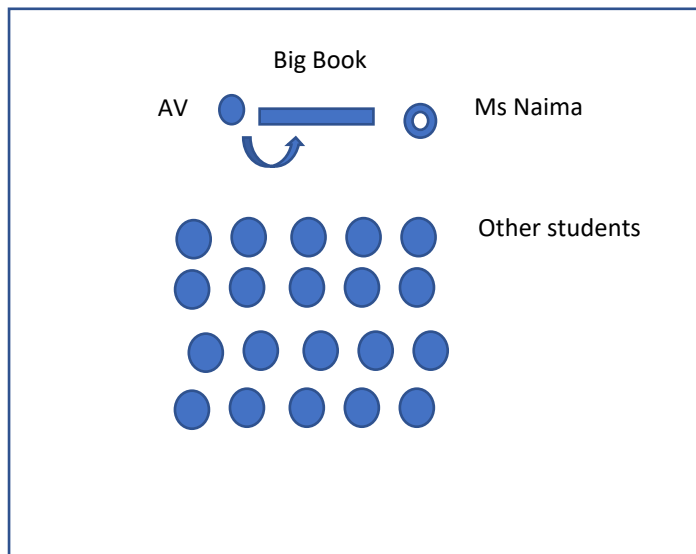
of Whole-class Reading, Teacher Modelling (Reading) and Teacher Instructions. The IRF sequence prevailed in the Main Lesson Genre, where Ms Naima usually reformulated her students' answers to reflect 'school' English – in complete sentences and with correct grammar. The following extract shows one such instance:

Extract 5.4: IRF Sequence in Ms Naima's Main Lesson Genre

Clause	Speaker	Speaker discourse
131	Ms Naima:	So what is he going to do here?
132		CL.
133	CL:	Shoot the monster.
134	Ms Naima:	He is going to shoot the monster.

This extract begins with a question initiated by Ms Naima, responded by CL upon being nominated as speaker and evaluated by Ms Naima. The evaluation turn here is interesting as Ms Naima not only acknowledged CL's answer; she had also reformulated it to a complete sentence to ensure compliance with 'school' English although this has not been explicitly communicated to the students. Turn taking was consistently controlled by Ms Naima as seen from the extract above, with very little spontaneous comments or responses from students. This ensured that the Whole-class Discussion Lesson Microgenre proceeded smoothly.

Figure 5.9: AV's position during the Main Lesson Genre



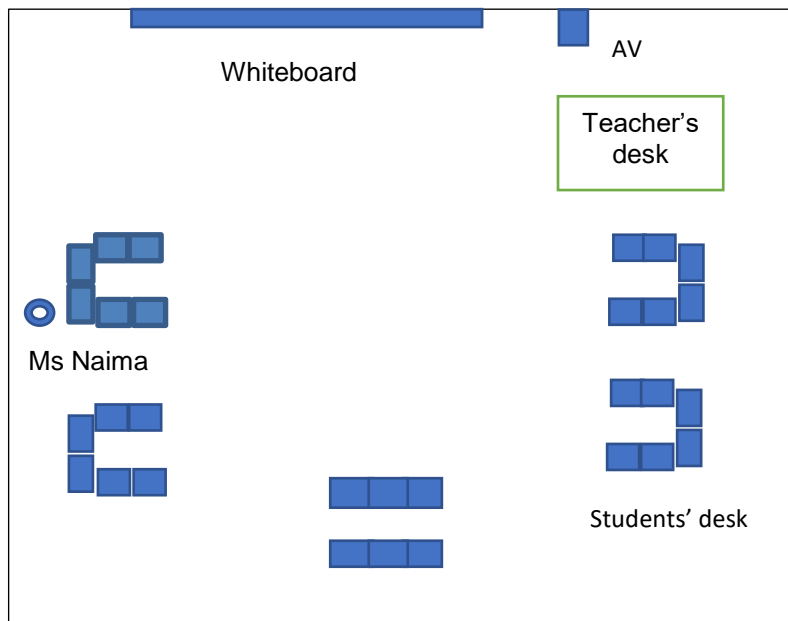
There were, however, disruptions to the on-going Main Lesson Genre in the form of Behavioural Management Lesson Microgenres for a total of 36 clauses. This could partly be due to the teacher-student interaction space. Ms Naima conducted the Main Lesson Genre in the lower spectrum of Public space, similar to Ms Fong and Ms Gan with the exception that she had placed one student, AV, standing by the Big Book to help her turn the pages (see Figure 5.9). At this position, the teacher-student interaction was well within the social-consultative space in terms of material space. However, Ms Gan continued using her 'public' voice in addressing her students, including AV. What was more pertinent was that in this position, AV could not see the Big Book as it was being read, and so at various points during the reading, he moved in front of the Big Book to view it (shown by the arrow in Figure 5.9), simultaneously blocking the view of his peers who were seated behind him. This resulted in Ms Naima disrupting the lesson to tell AV not to block others' view. It is apparent that AV's learning experience in this lesson was negatively impacted due to his physical position.

At other times, the Behavioural Management Lesson Microgenre involved the management of peer-to-peer interactions and getting students to sit down instead of kneeling down. The Tenor during this microgenre was Neutral in Affect, Unequal in Status and Distant in Contact. It is interesting to note that Ms Naima was never Negative in Affect, even when disciplining students. Her tone of voice remained unchanged and this was sufficient to effect change in students' behaviours. Her interactions with students will be further explored in Chapter 6 in the discussion of social roles enacted within the classroom.

Classification is weak during the Main Lesson Genre, Whole-class Discussion Lesson Microgenre as Ms Naima sought students' ideas and experiences to make sense of the events in the Big Book. There was a change at the end of the Whole-class Discussion Lesson Microgenre when Ms Naima led a discussion of students' nightmares. Whilst classification seemed weak at first, it became stronger when students started sharing about their nightmares -souls who came back from the dead in the form of ghosts, commonly found in Asian popular culture. At this juncture, Ms Naima steered the discussion to align with the nightmare found in the Big Book – a friendly-looking 'nightmare' who was scared of people. Thus, classification can be described as strong where everyday knowledge and school knowledge were clearly demarcated in order to achieve curricular goals and framing was strong.

The semiotic resources used by Ms Naima in this lesson were spoken language, voice quality, gesture, written language and images. The way Ms Naima used the images were similar to Ms Fong. She had covered the words in the big book prior to the Big Book reading so that students had to rely solely on the images to answer her questions.

Figure 5.10: Teacher-student interactions within the Social-Consultative space during Ms Naima’s Follow-up Lesson Genre: Individual Seat Work



The Follow-up Lesson Genre was carried out in two lesson microgenres: Individual Seat Work and Whole-class Discussion. During the Individual Seat Work, Ms Naima moved around the class to ensure students were on-task and to respond to students’ queries. Much of the interaction between Ms Naima and her students were within the Social-Consultative space as she spoke in a private voice with a casual or consultative style. However, there were times when Ms Naima used her public voice to address her students. An instance of this is when Ms Naima announced to her class how well the green group was progressing with their work: “Okay the Green group is quite fast. They all are very quick in drawing their nightmares and colouring it.

Ms Naima made this comment while moving around. The purpose seemed to be to encourage the other students to stay on-task so that they would complete their work as quickly as the Green group.

Throughout the Individual Seat Work Lesson Microgenre, AV, who had earlier been selected to stand by the Big Book to help Ms Naima turn the pages, was now seated at his desk positioned behind the teacher's desk. His seat was separated from the other students' and was not included as part of Ms Naima's route when she was moving around the class. While the other students in his class enjoyed teacher-student interactions within the Social-Consultative space, AV had no interactions with Ms Naima. Again, this constructed a learning experience that was different from his peers in the class.

The task set during the Individual Seat Work was for students to draw their nightmares. This seemed like an open-ended task, where students were able to draw their nightmares based on their imagination or their experiences. However, the instructions given by Ms Naima hinted that the task might be less open-ended than suggested. Extract 5.5 shows her instructions to students on the completion of the task:

Extract 5.5: Ms Naima's instructions to students on the completion of the task

Ms Naima: Okay so when you go back to your seats, leaders, I'm going to give you the activity sheet. And everyone is going to draw me your nightmare. Let's say you don't have a nightmare, imagine if you had a nightmare, what would your nightmare look like? You don't have to make it scary, right? It can be a friend, friendly-looking, scared-looking nightmare. You feel it is your nightmare but the nightmare feels that you are his nightmare.

Ms Naima's instructions served to ensure that students' interpretations of nightmares were aligned to the nightmare in the Big Book instead of the Asian ghosts student described during the Whole-class Discussion Lesson Microgenre. Classification is therefore quite strong here as Ms Naima attempted to limit students' drawings to

nightmares within the realm of school knowledge. This, however, proved unsuccessful as students drew on their everyday knowledge, more specifically their cultural knowledge, to complete the assigned task. This was shown during the Whole-class Discussion Lesson Microgenre of the Follow-up Lesson Genre, when Ms Naima showed students' work to the class, some of the drawings were of ghosts like those found in the Asian horror movies despite Ms Naima's attempts at steering students away from this interpretation. During this lesson microgenre, spoken language, voice quality, gesture and images represented by students' drawings were the semiotic resources used by Ms Naima.

The Behavioural Management Lesson Microgenre makes up 27 clauses during the Follow-up Lesson Genre. Most of these involved getting students to settle down, to remain on-task and advising students to put up their hands once they had finished their work. Similar to the Behavioural Management Lesson Microgenre in the Main Lesson Genre, Affect, Status and Contact at this Lesson Genre were Neutral, Unequal and Distant. Strong framing is exhibited here as teacher control is highly visible, with Ms Naima's movement around the class during the Individual Seat Work Microgenre and her control of the pacing of the lesson as she went through students' work, limiting students' contribution at times when she deemed necessary during the Whole-class Discussion Lesson Microgenre.

To sum up, during Ms Naima's lesson, the Field registerial variable alternated between school and everyday knowledge. When students' everyday knowledge did not conform to school knowledge, classification became stronger through Ms Naima's attempts to steer students back to school knowledge. For Tenor, Ms Naima remained 'Positive' in Affect for the most part of the lesson, changing to Neutral only during the Behavioural Management Lesson Microgenres. Status remained at

'Unequal' and Contact was either Involved or Distant. Distant was mostly during the Behavioural Management Lesson Microgenres with Ms Naima maintaining her composure and unemotional tone. The teacher-student interactions were in the higher spectrum of the Public space during the Pre-Lesson Genre, Preliminary Lesson Genre and Whole-class Discussion Lesson Microgenre of the Follow-up Lesson Genre. During the Main Lesson Genre, teacher-student interactions were within the lower spectrum of Public space with the exception of AV, given his physical position. This exception applied to the Individual Seat Work Lesson Microgenre as well, when teacher-student interaction for other students and Ms Naima was within the Social-Consultative space, with no interaction between AV and Ms Naima. In terms of Mode, Ms Naima used spoken language, gesture, voice quality, written language and images.

5.5 Conclusion

The learning contexts of each lesson show varied configurations as seen in Figure 5.1. The Pre-Lesson Genre and Preliminary Lesson Genre were carried out by Ms Fong and Ms Naima, the Follow-up Lesson Genre was present in Ms Gan's and Ms Naima's lessons and the Closure Lesson Genre was implemented only in Ms Naima's lesson. The Main Lesson Genre is the unifying stage that was carried out by all teachers. This is expected as big book reading is the main pedagogical activity of SBA1. This lesson genre displays similar characteristics across the three lessons – the whole-class teacher-student interaction patterns were all at the lower spectrum of Public space; students were seated on the floor with teacher in front centre position; and the similar curricular goal of reading for enjoyment a big book that was new to students. Further, this lesson genre shows obvious instances where instructional discourse and multimodal instructional discourse are foregrounded and would prove vital in exploring

how knowledge is constructed during teacher-student interactions and the kinds of knowledge that is being constructed.

Because of the reasons cited above, the Main Lesson Genre forms a good basis for which to make comparisons across the three lessons. The various multimodal resources at play at this stage (i.e., images and text in Big Books, gestures, speech, body angle and voice quality) also makes it an ideal stage for the close examination of multimodal pedagogic discourse. As such, the analysis of semiotic resources in Chapters 6 and 7 would focus only on the Main Lesson Genre.

Through the analysis of Tenor, the relationship between the three teachers and their students could be gleaned. This would set the stage for the APPRAISAL analysis and the speech function analysis described in Chapters 6 and 7.

The Mode analysis allowed for the narrowing of the semiotic resources to be analysed in this thesis. The semiotic resources of speech and gestures seem to be the most productive meaning-making resources and as such, these would be the focus of further analysis in Chapters 6 and 7.

CHAPTER 6 : ANALYSIS OF SPEECH

6.1 Introduction

The registerial analysis in Chapter 5 provides a general overview of the lessons in terms of field, tenor and mode and the interweaving of the instructional discourse, regulative discourse and multimodal discourse in the different stages of Lesson Genres of each lesson. In addition, the registerial analysis allows for the narrowing of the data to a Lesson Genre that exhibit similar characteristics. Following this, analysis of the data from this chapter onwards will focus on the classroom interactions within the Main Lesson Genre, when teachers engage students in discussions about the different big books.

In this chapter, the analysis of the mode of language in the aural modality, or speech, is presented. Selected SFL systems are used in the linguistic analysis to explore the following ideas: the social roles enacted by teachers and students; the interpersonal resources used by teachers to create conducive learning environments or otherwise; and the ways that teachers mediate between the big books and students and engage students in the construction of knowledge.

6.2 Enactment of social roles

The social roles played by teachers and how they position students in the teaching and learning activity would provide insight into the distribution of power in the classrooms of the three teachers. The teacher-student interactions are thus concerned with the regulative discourse. The Main Lesson Genre is teacher-led and as such, teacher authority is likely to be highly visible, in managing turn-taking, pacing of the lesson, controlling the direction of the discussions and maintaining order. The

main SFL system that is of relevance here is mood along with its sub-system of modality. The discussion will proceed with the mood analysis of clauses at the stratum of lexicogrammar for each of the teachers.

6.2.1 Exploring social roles in Ms Fong's lesson

This section aims to give insights into the way Ms Fong positions herself and her students during the big book reading and discussion. The big book for this lesson, entitled “The Fisherman and his wife”, is a common folk tale that has been adapted in numerous variations. It is highly likely that some students have read or been read to a version of this tale as indicated by a few students at the start of the lesson. The discussion in this section begins with an extract of the kind of interactions found in Ms Fong's lesson. This extract is near the beginning of the lesson and Clause 189 was the first line read from the big book

Extract 6.1 is representative of the kinds of interactions of Ms Fong and her students. Based on the reading of a passage from the big book, Ms Fong would ask questions related to that passage and students would answer accordingly. Teacher authority is evident in her use of the regulative register to control the allocation of turns by nominating particular students to respond to her question; and in her control of the topics discussed through a variety of mood selections. This is in contrast to her students' mood selection which was limited to the elliptical clause with the exception of YH's highly marked inclusive imperative in Clause 199. This is the only occasion in the data when a student made such a mood selection. His turn was promptly given to RK when he failed to give a response to the question.

Extract 6.1: Typical teacher-student interactions during Ms Fong's lesson¹¹

Clause	Speaker	Spoken language
189	Ms Fong:	<i>A fisherman lives in a hut by the sea. But what . but that wasn't where his wife wanted to be.</i>
190		Where did his wife want to be?
191		What does it mean?
192		Was she happy staying by the sea?
193	Student:	No.
194	Ms Fong:	No.
195		What do you think she wants?
196		Where do you think she wants to stay?
197		YH, where do you think she wants to stay?
198		Guess.
199	YH:	Hmm let's see.
200	Ms Fong:	RK.
201	RK:	In a big house.
202	Ms Fong:	She wants to stay in a big house.
203		Maybe. Maybe.
204	Student:	Condo. (laughs)
205	Ms Fong:	In a condominium.
206		Maybe.
207		NK
208	NK:	In the village.
209	Ms Fong:	She wants to stay in the village.
210	NK:	Because she doesn't want to be alone.

¹¹ Texts in italics indicate reading of the big book. These have been excluded from the total count of clauses in Table 6.1. Where it is not possible to identify student speakers, 'student' is indicated in the 'Speaker' column; otherwise, names of students are indicated. All names have been anonymised to protect the identity of research participants.

211	Ms Fong:	Oh what NK means is she doesn't want to stay alone by the sea.
212		She wants to stay in the village with the other people.
213		Good. (class applauds)
214		What else?
215		HL.
216	HL:	Stay in the city.

RK's and an unidentified student's elliptical responses in Clauses 201 and 204 received tentative evaluations from Ms Fong through her use of the mood adjunct 'maybe' in Clauses 203 and 206. This showed her willingness to accept a variety of answers, perhaps due to the open nature of the question posed 'Where do you think she wants to stay?'. NK's extended answer in two full declarative clauses (Clauses 208 and 210), however, received Ms Fong's positive evaluation. The criterion for supplying 'correct' answers seems to be the ability to provide extended responses such as NK's, though this was never explicitly stated by Ms Fong. Bernstein characterised this as 'invisible pedagogy', where the criterion for success was implicit and students who fail to recognise this would not be able to participate successfully in the whole-class discussion. As shown in the extract, only NK was able to participate in the discussion successfully by providing an extended answer.

The student applause after Ms Fong's positive evaluation of NK's answer was typical in this lesson. Students applauded spontaneously, without any instruction from Ms Fong, indicating that this practice was part of the class routine designed to create a warm and encouraging learning environment. At the same time, group membership

was solidified through positive evaluation as a class – teacher and students together celebrating the success of a member of the class.

The rest of the whole discussion proceeded in a similar manner. Ms Fong initiated questions based on either the written words or the images, nominated students to answer and when the nominated speakers failed to provide the correct answer, she nominated other students. If she was satisfied with a student's answer, she would give positive feedback, the class would applaud then Ms Fong would move on to the next question or continued reading. At times, Ms Fong would ask for students' personal responses and the field of discourse would then be extended beyond the fields delineated by the curriculum. This would also happen in instances where Ms Fong set up hypothetical situations in explaining a certain concept or definition of a word.

Table 6.1 shows a summary of the mood analysis of Ms Fong's lesson. There are 929 clauses in the Main Lesson Genre and of these, 650 clauses were spoken by Ms Fong, 242 clauses by individual students and 37 clauses by many students. It is expected that Ms Fong would dominate the teacher-student interactions during this Main Lesson Genre as this is the phase where the three teachers in the study led whole-class discussions.

Ms Fong's declarative clauses mostly functioned to repeat or recast students' responses, correct students' errors and explain a certain word or concept. Teacher authority was most evident when Ms Fong held the floor by producing long stretches of declarative clauses, with no opportunities for student input. When students were nominated to take speaking turns, their responses were mostly limited to single declarative clauses or ellipted

clauses. Despite the high value accorded to extended responses as noted earlier, only 5 student responses were more than one-clause length. This shows that the invisible pedagogy practised by Ms Fong privileged only a few of the students in her class.

Ms Fong dominated the use of interrogatives as compared to her students. She demanded for information while her students provided the answers. This follows the IRF sequence that has been reportedly used in classrooms. The small percentage of student-questions (less than 1%) perhaps warrants some attention. Although Ms Fong was generally warm and positive in her approach to her students, not many students used the interrogative mood. This could be due to the highly structured IRF sequence employed by Ms Fong and the fact that no opportunities were afforded to students to ask questions.

Imperatives were used sparingly by Ms Fong. There were 32 exclusive imperatives, where the Subject is 'you' and 10 inclusive imperatives, for which the Subject is 'us' and 'me' in constructions such as 'let's' and 'let me'. The exclusive imperatives were commands, and hence part of the regulative discourse, to direct students to act non-verbally in relation their posture (e.g. 'sit up straight', perform some task (e.g. 'turn off the fan'), to focus their attention on something (e.g. 'Look at the mouth') or to regulate their behaviour (e.g. 'raise your hand'). The regulative register worked implicitly at other times, suggesting that Ms Fong had put in place procedures or routines, such as how to answer questions, for which students were accustomed. They therefore required little or no direction from Ms Fong to participate in the lesson. Inclusive imperatives are used to soften imperatives and promote group membership in carrying out

commands related to the pedagogical task (e.g. ‘and let’s look carefully’ and ‘alright, let’s all read together’).

Table 6.1 Summary of mood analysis for Ms Fong’s lesson (adapted from Eggins & Slade, 2006, p.110)

Mood (clause type)	Ms Fong	Individual student	Many students
No. of clauses (% of total no. of 929 clauses ¹²)	650 (70%)	242 (26%)	37 (4%)
Abandoned ¹³	5 (<1%)	4 (2%)	0
Vocatives			
Darling/s	5 (<1%)	0	0
First name	74	0	0
Full name	0	0	0
Teacher	0	2	0
Declaratives			
Full	256 (39%)	63 (26%)	0
Elliptical	102 (16%)	145 (60%)	37 (100%)
Incomplete	17 (3%)	0	0
Interrogatives			
wh-	105 (16%)	6 (2.5%)	0
yes-no	59 (9%)	0	0
Imperatives			
Inclusive	10 (2%)	1 (<0%)	0
Exclusive	32 (5%)	8 (3%)	0
Minor	64 (10%)	14 (6%)	0

¹² This number excludes unclear turns due to poor audio quality and turns that are read from the big book as these do not constitute student-teacher interactions.

¹³ For the rest of the table, percentages indicate the percentage of total number of clauses by speakers.

Mood (clause type)	Ms Fong	Individual student	Many students
Modalization			
Probability	2 (<1%)	1(<0%)	0
Usuality	4 (<1%)	0	0
Modulation			
Obligation	8 (1%)	0	0
Capability	2 (<1%)	0	0

Ms Fong's selection of mood was overwhelmingly congruent. When she issued a command, she used the imperative mood. When she sought information from students, she used the interrogative mood. The declarative mood was used to share information or recast students' answers. In this way, her students were clear on the roles to take when Ms Fong used the various mood selections.

At times, Ms Fong used interpersonal metaphors, specifically, mood metaphors such as incomplete declaratives spoken with a rising tone. This can be seen as a metaphorical configuration of her declarative clauses due to the declarative structure at the beginning of the clause but stopping short of completion with a rising tone at the end. These incomplete clauses are more like interrogatives as they function to demand information. Teachers often use declaratives in this way as a variation to interrogatives that require one-word or short phrases as answers. Ms Fong directed all of the 17 incomplete declaratives to the class as a whole and therefore, students responded in chorus to complete the clauses. Answers were easily retrievable either from the displayed written words or the images of the big book and therefore were predictable

and obvious. In these instances, students were expected to, and always did, provide the correct answers.

It is also quite common for teachers to form declaratives with a rising tone at the end. Again, these are essentially questions but used by teachers to check whether they had heard students' answers accurately and to reach a common understanding with other students in order to move forward in the discussion. Ms Fong produced 21 of such clauses.

Ms Fong's infrequent use of modality is aligned with her direct approach. Her most significant use of modality is that of modulating obligation, which numbers at eight; two were directed at the class as a whole (e.g. 'now you should know'), another 2 at an individual student (e.g. 'ML, afterwards you can cut it off') while the rest were used in conjunction with the hypothetical situations Ms Fong set up in explaining certain concepts (e.g. 'so you need to cast the net').

Although Ms Fong dominated the whole-class discussion, individual students did make unsolicited comments in the congruent forms of imperatives (e.g. 'look at the mouth', 'hurry, hurry') or interrogatives (e.g. 'what is delay?') thus changing the course of the discussion. This, however, happened infrequently – only 2.5% or 6 times. In this way, power was being re-distributed minimally.

Most of the time, however, students produced elliptical declarative clauses in response to Ms Fong's questions. At the beginning of the lesson, there was strong framing as Ms Fong discouraged the use of such clauses, insisting for students to answer in "full sentences" (Clause 72 and 91). Such a request strengthens the boundaries between every day and school language. Full declarative clauses in response to

questions would seem odd in every day contexts but are easily justifiable in school contexts, where 'good' English, such as answering in full sentences, is valued. As the lesson progressed, however, the boundaries were weakened as Ms Fong accepted students' elliptical responses. It seems that as the discussion progressed, the fluid exchange of ideas began to mirror characteristics of everyday language; thus, reducing the need for students to answer in complete sentences.

From the beginning of her lesson, Ms Fong established a positive environment in her classroom. This is most obvious in her choice of using the vocative, 'darling', to address her students. 'Darling' is a highly marked term of address, considering the formal, institutional environment of school; such a form is normally restricted to domestic, familial settings where relationships are less formal. As such, even though Ms Fong used it only four times (a fifth time was directed at some students causing a commotion at the corridor outside of the class), the fact that she used 'darling' at all was unusual in a classroom setting. At other times, her use of vocative was predominantly her students' first names to nominate them as speakers.

From the above discussion, it is apparent that Ms Fong practised covert forms of control, with very little need to issue commands explicitly. This could be due to the way rules and regulations were set up as routines such that there was no need for Ms Fong to give instructions to students to participate in the whole-class discussion. It could also be due to her congruent mood selections showed her preference for a direct approach in her pedagogical discourse, sustaining a visible pedagogy.

She also took steps to provide students with a warm and supportive learning environment through the use of the vocative 'darling' and in the way students were allowed to change the topics of discussion.

6.2.2 Exploring social roles in Ms Gan's lesson

The big book read during Ms Gan's lesson was 'The Growl', a story about a hungry girl whose stomach growled during class which her teacher used as a platform to guess the source of the noise with her students. The following extract shows the typical teacher-student interactions during Ms Gan's lesson.

Extract 6.2: Typical teacher-student interactions during Ms Gan's lesson

Clause	Speaker	Speaker discourse
1	Ms Gan:	If I were to call you name,
2		you would have to stay back after school, and recess as well.
3		Do not make me,
4		and do not interrupt as well.
5	Student:	Miss Gan, can I go to the toilet?
6	Ms Gan:	Can you be going to the toilet during lesson?
7		Who wants to go?
8		No, only one at a time.
9		But I cannot,
10		look here,
11		you want to go,
12		you go first.
13		Don't ever mention about toilet.
14		Especially when we are into big book reading.
15		There should be nobody going to the toilet at all.

16		Because the moment you went out ,go out,
17		you don't know what's happening in the class
18		and you miss the lesson.
19		Do you understand?
20	Many students:	Yes
21	Ms Gan:	Alright, everybody ready?
22		Can you see from there?
23		You can shift here.
24		OK, today, we are going to read this book.
25		What do you.
26		Looking at the picture, looking at the picture, what do you think [the story is going to be about]? ¹⁴
27	Student:	Something scary.
28	Ms Gan:	Yes, JR?
29	JR:	Errr...
30	Student:	XXX ¹⁵
31	Ms Gan:	I'm asking JR.
32		Yes?
33	JR:	It's about scary thing.
34	Ms Gan:	Scary thing.
35		Why?
36		What makes you think [it's about scary stuff]?
37	JR:	The word growl (pronounced as 'goal')

Extract 6.2 marks the beginning of Ms Gan's lesson where teacher authority was obvious. She issued a series of imperative clauses to

¹⁴ Text in [] denotes embedded clauses.

¹⁵ XXX denotes unclear audio recording that cannot be transcribed accurately.

regulate students' behaviours as part of the regulative register. Clauses 1 and 2, for example, function almost as a threat to ensure students comply with certain rules that had not been made explicit. This contributed to the invisible pedagogy that seemed to be preferred by Ms Gan. As such, even though the use of regulative register was obvious and framing was strong, Ms Gan did not consistently state her expectations of students' behaviours as I have noted in Chapter 5.

Ms Gan's inconsistency in managing speaker turns during the whole-class discussion has also been described in Chapter 5. In Extract 6.2, Ms Gan nominated a student, JR, at Clause 28 to respond to her question, although a student had already responded at Clause 27. When JR hesitated, another student took a speaking turn without being nominated, to which Ms Gan responded with a mood metaphor at Clause 31: "I'm asking JR". This declarative clause functions incongruently as a command directed at the unidentified student (Clause 30) to keep quiet. Such incongruent mood realisations contribute to the invisible pedagogy of Ms Gan's lesson.

At other times, however, Ms Gan did not nominate anyone after asking a question which caused students to talk over one another, often escalating to incomprehensible noise as students vied to answer her questions. Because of the invisible pedagogy adopted by Ms Gan, students were unsure about how to participate in the whole-class discussion resulting in a disorganised learning environment.

Table 6.2 Summary of mood analysis for Ms Gan's lesson (adapted from Eggins & Slade, 2006, p.110)

Mood (clause type)	Ms Gan	Individual student	Many students
No. of clauses (% of total no. of 598 clauses ¹⁶)	409(68%)	141(24%)	48 (8%)
Abandoned ¹⁷	14 (3%)	2 (1%)	0
Vocatives			
Darling/s	0	0	0
First name	16 (4%)	0	0
Full name	3 (<1%)	0	0
Class	4 (<1%)	0	0
Teacher	0	2 (1%)	
Declaratives			
Full	114 (28%)	47 (33%)	0
Elliptical	34 (8%)	74 (52%)	46 (100%)
Incomplete	8 (2%)	0	0
Interrogatives			
wh-	74(18%)	1 (<1%)	0
yes-no	65 (16%)	3 (<1%)	0
Imperatives			
Inclusive	16 (4%)	0	0
Exclusive	45 (11%)	4 (2%)	0
Minor	39 (10%)	11 (8%)	2 (0.04%)

¹⁶ This number excludes unclear turns due to poor audio quality and turns that are read from the big book as these do not constitute student-teacher interactions.

¹⁷ For the rest of the table, percentages indicate the percentage of total number of clauses by speakers.

Modalization			
Probability	1	1 (<1%)	0
Usuality	0	0	0
Modulation			
Obligation	7	0	0
Capability	1	0	0

As expected, Ms Gan dominated the whole-class discussion in that she produced the most clauses across all types (declaratives, interrogatives and imperatives). The difference is most obvious in the clause-types interrogatives and imperatives. Her students produced only 4 interrogatives and the same number for imperatives. The low number of interrogatives from students indicates that they had little control over the topics discussed and this contributed to the strong framing adopted Ms Gan. The imperatives made by students, all of which were exclusive, were directions to focus on certain parts of the images in the big book. The linguistic rights of the students in Ms Gan's class are therefore quite limited. There were many occasions though when students spoke at the same time, overlapping each other, such that particular voices could not be distinguished, much less transcribed. As mentioned earlier, these would have little effect on the analysis as Ms Gan chose to continue with her lesson without taking into consideration such students' contributions. This strengthens the earlier analysis that framing is strong in Ms Gan's class due to the limited power she accorded to her students in selecting the topic of discussion.

By producing the high number of interrogatives, Ms Gan was essentially placing students in the role of responders to share their ideas

or opinions. Students replied mostly in elliptical declarative clauses (74 or 53%) and in fewer cases, full declarative clauses (47 or 33%). This usually occurs in response to Ms Gan's interrogative wh clauses, for which a new proposition needed to be introduced in order to address the question. Thus, the topics of such responses were largely still controlled by Ms Gan.

Teacher authority is most obvious in the high frequency of exclusive imperatives used by Ms Gan (45 clauses or 11%), most of which were produced to regulate students' behaviour, contributing to the strong framing evident in her lesson. This is aligned with the high incidence of Behavioural Management Lesson Microgenres described in Chapter 5. In spite of such visible teacher authority, Ms Gan had little success in managing the behaviours of her students. A telling example of how teacher authority and Ms Gan's mood selections worked in an attempt to regulate a students' behaviour is found in Extract 6.3. Ms Gan was leading the discussion on the cover of the big book when she shifted her attention to a student named GR at Clause 64.

Extract 6.3: Ms Gan's mood selections and teacher authority to regulate a student's behavior

Clause	Speaker	Spoken Discourse
63	Ms Gan:	Yes, not only draw but also colour.
64		GR C!
65		can you please stand over there, GR C?
66		Behind means behind,
67		Go!
68		Stand,
69		go!
70		DN, don't touch him.
71		GR, go!

The use of a students' full name as a vocative (Clauses 64 and 65) is highly marked. Besides these two instances features in Extract 6.3, there was only one other incident of Ms Gan using the full name of another student. All three instances involved Ms Gan reprimanding the students concerned, indicating that the use of full names is reserved for the disciplining of students.

Ms Gan varied her selection of mood to increasingly assert her authority. She began with a vocative as a minor clause at Clause 64, perhaps to attract GR's attention and to indicate her displeasure at him for reasons she did not specify through the use of his full name. This was followed by a request for him to stand in the corner realised incongruently by an interrogative yes-no clause (Clause 65: 'can you please stand over there, GR C?'). There is also the use of modality in that it is a low modulation of obligation. and a declarative at Clause 66, which is another incongruent realisation of a command. When GR failed to do as he was told, Ms Gan changed her mood selection to imperatives, the congruent realisation of commands. This mood selection was maintained from Clause 67 to Clause 71; all were directed at GR except for Clause 70. GR only complied with Ms Gan's request at Clause 71. This resistance from GR is highly unusual as in his role as a student, the expected response to a request from a teacher would be immediate compliance. His non-compliance caused Ms Gan to vary her selection of mood, increasingly asserting her authority.

In her response to students' answers, Ms Gan showed restraint in evaluating their answers, preferring to instead produce declarative clauses which were repetitions of students' answers ending in a rising tone at the end. This suggests that these clauses functioned incongruently as questions. In so doing, Ms Gan was open to several alternatives answers

from students. How these were used to advance students' understanding of the text will be explored in the next section, when the speech function analysis is undertaken.

Overall, the discussion in this section strengthened the analysis in Chapter 5 that there was strong framing in Ms Gan's lesson. Her lack of consistency in carrying out what should have been daily routines in the classroom such as taking turns during whole-class discussions created a learning environment that was disorganised and difficult to manage. This was heightened by her preference for an invisible pedagogy in that her rules of acceptable behaviour were not specified as was the case in Extract 6.3 – Ms Gan's reason for ordering GR to stand in the corner was never stated thus remained unknown to the rest of the class, and perhaps even to GR. The cumulative effect of the strong framing and invisible pedagogy is that students were unclear about the roles to take in participating in class activities, even those that were routine such as participating in whole-class discussions.

6.2.3 Exploring social roles in Ms Naima's lesson

The Main Lesson Genre of Ms Naima's lesson centred on the big book, 'There's a Nightmare in My Closet', a classic children's story by Mercer Mayer. Due to its high popularity, it is likely that some students in Ms Naima's had read the book. As with the previous two sections, this section will begin with an extract showing typical teacher-student interaction between Ms Naima and her students. This extract is taken from near the beginning of the lesson as Ms Naima was introducing the new big book.

Ms Naima began the Main Lesson Genre with a discussion on the cover of the big book. The interactions between Ms Naima and her

students were orderly and proceeded in a predictable manner. Ms Naima initiated a question, immediately nominated a student, who then responded to her question. This pattern of interaction continued for the rest of the Main Lesson Genre and as such, strong framing is evident in that Ms Naima was clearly shaping the course of the discussion without allowing for student input. However, due to the routine procedures already in place, Ms Naima's use of the regulative register to manage student behaviour operated in a less obvious manner than that found in Ms Gan's lesson. A consequence of this is an orderly and supportive learning environment with minimal disruption to the on-going logogenesis of the lesson.

Extract 6.4: Typical student-teacher interaction between Ms Naima and her students

Clause	Speaker	Spoken discourse
5	Ms Naima:	This is the new book [[we are going to read]] today.
6		Look at the cover.
7		Look at the cover.
8		I know [[you already read it]].
9		<i>There's a nightmare in my closet.</i>
10		But what do you see on the cover of this book?
11		EI.
12	EI:	A monster.
13	Ms Naima:	Okay EI says [[she sees a monster]].
14		The monster is in here.
15		But what room do you think this is?
16		NC.
17	NC:	Bedroom
18	Ms Naima:	In a bedroom.

19		How do you know [[that it's a bedroom]]?
20	NC:	Because.
21	Ms Naima:	BN.
22	BN:	Because I see the closet is inside the (unclear).
23	Ms Naima:	Okay BN says [[because there is a closet and most closets are in the bedroom]],
24		so that's a bedroom.

As with the other two lessons by Ms Fong and Ms Gan, Ms Naima dominated the whole-class discussion. Her students produced only 18% of the total number of clauses compared to Ms Naima's 80%, which is higher than Ms Gan (68%) and Ms Fong (70%). The students in Ms Naima's class produced only declarative clauses, most of which were responses to Ms Naima's interrogative clauses from individual students. Moreover, students in her class did not produce any interrogative clauses, implying that they had little control over the topics of discussion. Throughout the Main Lesson Genre, Ms Naima controlled the topics to be discussed mainly through the interrogative clauses.

Ms Naima's subtle approach to maintaining control over the lesson and her students differs from Ms Gan or Ms Fong. While Ms Gan and Ms Fong used imperatives congruently to issue commands to regulate student behaviour, Ms Naima did this to a limited extent - only 4 of the 42 exclusive imperatives were directed at correcting students' behaviour. The rest of the imperatives, both inclusive and exclusive, were mostly used to focus students' attention on some aspects of the big book (e.g. 'Look at this', 'Look at his eyes').

Table 6.3 Summary of mood analysis for Ms Naima's lesson (adapted from Eggins & Slade, 2006, p.110)

Mood (clause type)	Ms Naima	Individual student	Many students
No. of clauses (% of total no. of 816 clauses ¹⁸)	653 (80%)	146 (18%)	17 (2%)
Abandoned ¹⁹	7 (<1%)	3 (2%)	0
Vocatives			
Darling/s	0	0	0
First name	78 (10%)	0	0
Full name	0 (%)	0	0
Class/Leaders	2 (<1%)	0	0
Teacher	0	0	0
Declaratives			
Full	284 (35%)	70 (48%)	0
Elliptical	99 (12%)	72 (49%)	17 (2%)
Incomplete	1 (<1%)	0	0
Interrogatives			
wh-	165(20%)	0	0
yes-no	48(6%)	0	0
Imperatives			
Inclusive	14(2%)	0	0
Exclusive	42 (5%)	0	0
Minor	71 (9%)	1 (<1%)	0

¹⁸ This number excludes unclear turns due to poor audio quality and turns that are read from the big book as these do not constitute student-teacher interactions.

¹⁹ For the rest of the table, percentages indicate the percentage of total number of clauses by speakers.

Modalization			
Probability	4 (<1%)	0	0
Usuality	0	0	0
Modulation			
Obligation	13 (2%)	0	0
Capability	18 (2%)	5 (<1%)	0

Ms Naima maintained discipline in her class through her use of mood metaphors and modality. She often used declaratives incongruently to issue commands. For instance, when a student did not follow procedures in taking a turn during the whole-class discussion, Ms Naima produced the declarative mood tag, “DA has to put up his hand, right?”. Declarative mood tags serve to confirm a proposition that is shared knowledge between the speaker and his/her audience. While this might be one of Ms Naima’s purposes for such a construction, the fact that she used the third-person subject to refer to DA in a clause directed at the whole class seems to suggest that there is a metaphorical layer of meaning attached to the clause. This interpretation is strengthened through her use of a modulated obligation with implicit objective orientation. By configuring the orientation of the clause as objective, Ms Naima presented what was essentially a command to be a confirmation of existing knowledge that was shared among her and her students. Further, she reduced the possibility of having to deal with DA’s potential non-compliance by not addressing him directly, as would be the case had she used the imperative mood, the congruent form of issuing commands.

Another example of her use of mood metaphor is found in the Extract 6.5. Ms Naima was asking a question when she saw that MC was

holding a private conversation with her classmate sitting next to her. She then called out to MC, and addressed the question to her at Clause 298. The interrogative here has at least two layers of meaning: congruently, Ms Naima was seeking information from MC; incongruently, she was getting MC's attention to stop her from having a private conversation with her classmate. At Clause 306, Ms Naima again employed the third person subject in directing a command to MC which was addressed to the whole class. As before, the command was also disguised as a declarative mood tag with an objective orientation.

Extract 6.5: An example of Ms Naima's use of mood metaphor

Clause	Speaker	Spoken discourse
297	Ms Naima:	How does he look now?
298		MC, how does he look now?
299		Maybe you can talk to me instead.
300		How does he look now, MC?
301	MC:	Err...
302	Ms Naima:	How does he look?
303		Does he look scared, MC?
304	MC:	No.
305	Ms Naima:	He doesn't look scared anymore.
306		Okay MC needs to pay attention,
307		then she will know what is happening right, class?

By adopting such subtle methods of disciplining her students, Ms Naima avoided the direct assertion of teacher authority and potential negative effect to the teacher-student interactions while being clear on what was considered unacceptable behaviour.

Overall, the mood analysis across the three lessons reveals some common findings. All the three teachers dominated the teacher-student interactions during the Main Lesson Genre. Of the three teachers, Ms Naima's students did not produce any interrogatives while students in Ms Fong's and Ms Gan's class produced 6 and 4 interrogatives respectively. Students were seen to contribute more through the use of declaratives when they spoke individually – 142 or 97% of total student clauses during Ms Naima's lesson, 121 or 85% of total student clauses during Ms Gan's lesson and 208 or 86% of total student clauses during Ms Fong's lesson. However, it is still left to be seen how teachers respond to student declaratives. Basing on the high number of total teacher clauses as compared to student clauses, it seems that students have little power in holding the floor due to the strong framing exercised by teachers. This strong framing, characterised by the lack of student opportunities to participate teacher-student interactions, did not align with the aims of STELLAR, where student participation is highly valued and encouraged.

It is thus an important endeavour to examine the impact of such strong framing on students' learning experiences in each of the three classrooms. How would the nurturing environment afforded by Ms Fong's use of terms of endearment and her low use of imperatives to control student behaviour affect her interaction patterns in instructional discourse? How would Ms Naima's covert control of her students impact on the way she navigates the instructional discourse with her students? How would Ms Gan's weak framing in terms of turn allocation affect her interactions with her students?

In order to investigate this and the ways in which the three teachers engage students, an analysis of engagement within Appraisal theory (Martin & White, 2005) is undertaken in the next section.

6.3 Engaging students during instructional discourse

The focus of this section is to understand the way teachers engage students during instructional discourse in SBA 1 of STELLAR lessons (see Chapter 5) through the management of dialogic space. The way teachers give space to student voice during these discussions is especially important in determining how scaffolding (Wood, Bruner, & Ross, 1976) takes place in classrooms such that teachers and students reach a common understanding that meets curricular goals. Further, the way teachers “adopt a stance towards the value positions being referenced by the text and with respect to those they address” (Martin and White, 2005, p. 92) will affect how they communicate with students; in particular, in paving their thinking in alignment with curricular goals.

The Engagement system within Appraisal is concerned with “meanings in context and towards rhetorical effects, rather than towards grammatical forms” (Martin and White, 2005, p. 94). As such, the linguistic analysis presented here moves from the lexicogrammar stratum to the discourse semantics stratum, freeing the analysis from the clausal boundaries evident in the previous sections of this chapter. Because the analysis is at the level of discourse semantics, the discussion of appraisal theory henceforth will use the term ‘utterance’ as its unit of analysis. As explained by Martin and White (2005), appraisal analysis “tends to splash across a phase of discourse” (p. 10). Thus, ‘utterance’, when used in the context of appraisal analysis in this chapter, could refer to a single word, a phrase or a whole turn across a length of spoken discourse. An utterance is motivated by the way that it presents views or information in the text. A turn is taken to be the default utterance unless within the turn, the speaker chooses to present his or her views in multiple ways – monoglossic and

heteroglossic. The appraisal analysis would therefore be removed from the clausal structure for which the spoken data has been organised.

The discussion of this section proceeds with extracts of classroom discourse that exemplifies a certain pattern of interactions that highlight ways that teachers expand or contract dialogic space – in Bakhtinian terms, the space where other voices or positions are taken into consideration (i.e., expansion of dialogic space) versus the space where other voices or positions are recognised but discouraged from furthering their cause (i.e., contraction of dialogic space) (Bakhtin, 1981). In this section, numerical counts of expansion and contraction are deemed unhelpful in moving the discussion forward. The objective here is to show how teachers use linguistic resources in achieving intersubjectivity, or also known as common knowledge, and in including or excluding student voice during the whole-class discussions. Nonetheless, it may be useful to chart interaction patterns to begin to understand how teachers negotiate dialogic space during Big Book Reading.

The way the three teachers carried out whole class discussions was quite similar. In Chapter 5, it was noted that IRF exchanges comprise a majority of the classroom interactions. Here, the focus is on the initiating and follow-up moves made by teachers that would show how they manage the dialogic space during the whole class discussions as shown in the following extracts.

6.3.1 Presenting information as an undisputed truth

In their attempts to attain intersubjectivity, teachers sometimes use monoglossic utterances to state ideas that do not take into consideration other voices or viewpoints and are presented as taken-for-granted information (Martin and White, 2005). Monoglossic utterances do not

invoke alternative propositions, “at least for the brief textual moment taken up by the utterance” (Martin and White, 2005, p. 99). The following extracts show how teachers use monoglossic utterances during the whole-class discussions of the different big books.

Extract 6.6: Monoglossic utterances during Ms Fong’s lesson

Line No.	Speaker	Spoken discourse	Appraisal analysis
1	Ms Fong:	Where would you like to stay?	[heteroglossic: expand:entertain]
2	Student:	Beach.	
3	Ms Fong:	YC wants to stay by the beach.	[heteroglossic: expand: attribute: acknowledge]
4	Student:	I want to stay in condo house.	
5	Student:	Condominium.	
6	Ms Fong:	CR	[monogloss]
7	CR:	Condominium.	
8	Student:	Condo.	
9	Ms Fong:	Say the word again.	[monogloss]
10	CR:	At a condominium.	
11	Student:	Condo.	
12	Ms Fong:	Again again. Come on.	[monogloss]
13	CR:	I want to stay in condominium.	
14	Ms Fong:	A condominium is the same as a condo. Condo is the beginning of the word 'condominium'. Actually it's one word. So it's condominium.	[monogloss]

In Extract 6.6, Ms Fong gathered that students were confused about the words 'condo' and 'condominium'. The interjections at Lines 4 - 5; and 7 - 8 suggest that at least one student viewed the two words as separate with possibly different meanings. In order to clarify this, Ms Fong's turn at Line 14 is monoglossic in nature where her proposition that 'condo' was an abbreviated form of the word 'condominium' was stated as a matter of fact, something which was not up for discussion. By construing the information in this way, she effectively positioned her students as passive listeners who were not expected to question the information presented.

Extract 6.7: Monoglossic utterance during Ms Gan's lesson

Line No.	Speaker	Spoken discourse	Appraisal analysis
1	JR:	It's about scary thing.	
2	Ms Gan:	Scary thing.	[heteroglossic: expand: attribute: acknowledge]
3		Why? What makes you think it's about scary stuff?	[heteroglossic: expand: entertain]
4	JR:	The word growl (pronounced as 'groal')	
5	Ms Gan:	Is it 'groal' or 'growl'?	[heteroglossic: contract: proclaim: pronounce]
6	Many students:	['Groal']	
7	Many students:	[Growl!]	
8	Ms Gan:	This O-W is pronounced as 'ow'. So it's 'The Growl'.	[monoglossic]

In Extract 6.7, Ms Gan employed the monoglossic utterance when confronted with the different answers students gave to her question "Is it

‘groal’ or ‘growl’?”. Her monoglossic utterance made it clear the correct pronunciation of the word and presented it as ‘taken-for-granted’ information.

In the examples above, the teachers positioned students in passive roles in accepting the propositions offered when using monoglossic utterances. One exception to this happened during Ms Gan’s lesson as shown in Extract 6.8.

Extract 6.8: Exception in Ms Gan’s positioning of students

Line No.	Speaker	Spoken discourse	Appraisal analysis
1	Ms Gan:	A brontosaurus is a dinosaur that eats only plants. It will eat only plants. It will not eat animals. (...) ²⁰	[monoglossic]
2	Student:	Do they eat human?	

Ms Gan’s monoglossic utterance in Extract 6.8 had a different outcome. Although her proposition was presented as non-negotiable, a student was observed to have made a follow-up move for the purpose of clarifying. To a certain degree, this emphasises the partnership between students and teachers in managing dialogic spaces during classroom discussions. As much as teachers navigate and control such spaces, students could play a contributing role, especially in a classroom like Ms Gan’s, where students’ speaking turns were weakly framed.

6.3.2 Contracting dialogic space

In contracting dialogic space, the three teachers again showed similar interaction patterns. Options for contracting dialogic space are ‘disclaim’ and ‘proclaim’ (see Chapter 4).

²⁰ (...) denotes a length of spoken discourse that has been deleted in the extracts as it bears little relevance to the discussion.

In Extract 6.9, Ms Gan asked two expository questions one after another in Line 5 based on an image in the big book. These questions select the option [expand; entertain] as they are dialogically expansive. Ms Gan contracted the dialogic space in Line 8 with the selection of [contract; proclaim; concur; affirm] when students gave differing answers to her question, surfacing the need for her to ensure that students were clear on which of these was correct, with a re-wording from 'paper' as offered by a student to 'worksheets'. This has been described as 'reformulation' by Sinclair and Coulthard (1975) where teachers recast students' answers to be more accurate. In this case, the word 'paper' was deemed too general for the context and was recasted to 'worksheets' to more accurately describe what the teacher was holding in the image. This move from general to specific language is an important one for the successful apprenticeship of a discipline in school (Christie, 2002).

Ms Gan's selection of the option [contract; proclaim; pronounce] with the question "And does she look like a teacher?" at Line 9 was an interjection of her teacher voice. Ms Gan seemed to think that more evidence than the holding of worksheets was required to support the proposition that the teacher in the image was a teacher. Her new proposition suggested to students that the woman also looked like a teacher for which her students supplied the expected answer – 'yes'. Ms Gan thus represented this not as knowledge already shared by all students but intervened with new information. Ms Gan then selected the option [contract; proclaim; concur; affirm] at line 11 when she asked whether the teacher in the big book looked like the teachers in the school. By representing the information in this way, Ms Gan operated under the assumption that all students were privy to this shared knowledge.

Extract 6.9: Contracting dialogic space: An example from Ms Gan's lesson

Line	Speaker	Spoken discourse	Appraisal analysis
1	Ms Gan:	OK, so, Look at this picture.	[Monoglossic]
2		Who is this person?	[heteroglossic: expand; entertain]
3	Many students:	A teacher!	
4	Ms Gan:	A teacher?	[heteroglossic: expand; attribute; acknowledge]
5		What makes you say that she's a teacher? Why can't she be a mother?	[heteroglossic: expand; entertain]
6	Student:	Because because she's holding paper.	
7	Student:	[looking]	
8	Ms Gan:	Because she's holding some worksheets, right?	[heteroglossic: contract; proclaim; concur; affirm]
9		And and does she look like a teacher?	[heteroglossic: contract; proclaim; pronounce]
10	Many students:	Yes!	
11	Ms Gan:	Looks like some of the teachers in the school right?	[heteroglossic: contract; proclaim; concur; affirm]
12	Student:	The mouth very tiny one like this.	
13	Student:	Her earrings long long.	
14	Ms Gan:	Oh, her earrings, dangling like mine.	[heteroglossic: contract; proclaim; concur; affirm]

The interaction pattern of [expand; entertain] followed by [contract; proclaim; concur; affirm] is found repeatedly in Ms Gan's interactions with students. As we have seen, the [contract; proclaim; concur; affirm] option allows Ms Gan to build on her students' answers (Line 8) or introduce a proposition that is deemed to be shared by all students (Line 11). Although both utterances serve to contract dialogic space, they are noticeably qualitatively different. In agreeing and building on students' responses, the contraction of dialogic space seems less pronounced than the introduction of a proposition by Ms Gan, at Line 9 for instance, where she suggested that the woman in the image looked like the teachers in the school by asking a leading question. In drawing such a parallel, Ms Gan made links between the big book and the students' lives but essentially closed the dialogic space further as she failed to include the viewpoints of her students in making such an assessment. It must be noted, though, the similarities between the teacher in the big book and the teachers in the school were not immediately apparent. Unlike the teachers in the school, the teacher in the big book is not of Asian descent. This led to two students observing superficial characteristics of the teacher in the image — one in relation to her 'tiny mouth' and the other her dangling earrings (Lines 12 and 13); neither of which constitute being a teacher. Ms Gan's selection of [contraction; proclaim; concur; affirm] in response to the student's comment on the dangling earrings showed her agreement with the student without further exploration of the possible conflicting viewpoints of other students; thereby closing the dialogic space.

One resulting outcome of this extract is that Ms Gan did not address the central issue of what it means to look like a teacher. In bridging the image in the big book to students' experiences of seeing teachers in their school, Ms Gan first required students to assess the

teacher in the image of the big book based on some general characteristics of looking like a teacher in Line 9. This however, was represented as a leading question – there was no expectation that students would actually draw comparisons between what they know to be general characteristics of a teacher and whether the teacher in the book possessed such general characteristics. By contracting the dialogic space whilst focussing on the small details, the discussion remained in the realm of specific, everyday concepts instead of raising it to the generalisation of concepts situated within school discourse; for example, by noting the formal attire worn by the teacher in the image as something that is characteristic of being a teacher in order to reflect a professional image. Raising the level of discussion in this way has been reported to be an important skill for students to develop (Christie, 2002; Schleppegrell, 2004) in order to be successful in school. To surmise, the dialogic space began to contract in Line 8 but became more pronounced at Line 9 and more pronounced still at Line 11.

In Extract 6.10, after reading a line from the big book, Ms Fong opened the dialogic space between her and her students when she asked the expository question: “How did he know it was magic?”; thereby selecting the engagement option of [expand; entertain]. Ms Fong continued with this option when she asked a student to repeat his answer. After the student repeated his answer, Ms Fong acknowledged his answer at line 8 by repeating it though she preceded it with the conjunction ‘because’, possibly to show the connection between her question and the answer provided. This utterance selected the option [contract; proclaim; concur; affirm]. Here, Ms Fong was not merely repeating a student’s answer but also agreeing with him, evidenced by her next selection of [contract; proclaim; concur; affirm] at line 9 by restating the students’

answer with the conjunction 'so'. At line 10, her use of 'of course' represented this information as something that is generally shared by all the students, hence contracting the dialogic space in the discussion. In doing so, she positioned students to be in agreement with her. Any alternative views would be seen as going against the shared understanding of the classroom community. While this may be seen as negatively impacting the quality of discussion, it is necessary for the current discussion to end at some point so that teachers could move on to other topics or learning points. Thus, the contraction of dialogic space is deemed necessary to achieve intersubjectivity for the topic at hand. As noted earlier, Lines 8, 9 and 10 are analysed as [contract; proclaim; concur; affirm] although each of these serve a different purpose.

Based on Extracts 6.9 and 6.10, distinguishing between the two kinds of contraction of dialogic space may prove productive in charting a deeper understanding of how teachers manage whole class discussions. The present framework, however, does not allow for the distinction between utterances where teachers intervene the ongoing discussion with new information represented as though it is shared within the classroom community and where teachers build on or repeat students' answers. The distinction is important to show how the teachers presented and shared knowledge. As such, a more detailed analysis is proposed to shed light on how the three teachers interact with their students. To this end, the speech analysis framework by Eggins and Slade (2006) would be able to track teacher-student interactions and provide a clearer picture of how teachers manage whole class discussions. This will be explored in Chapter 7.

Extract 6.10: Interaction patterns: An example from Ms Fong's lesson

Line	Speaker	Speaker discourse	Appraisal analysis
1	Ms Fong:	<i>A fish that could talk came out of the sea. He knew it was magic so he set it free. [He knew it was magic, so he set it free.]</i>	
2	Many students:	(in chorus) <i>[He knew it was magic, so he set it free.]</i>	
3	Ms Fong:	How did he know it was magic?	[heteroglossic: expand; entertain]
4	Student:	Shiny shiny fish.	
5	Student:	He could talk.	
6	Ms Fong:	Because what?	[heteroglossic: expand; entertain]
7	Student:	The fish could talk.	
8	Ms Fong:	Because the fish could talk.	[contract; proclaim; concur; affirm]
9		So when the fish could talk,	[contract; proclaim; concur; affirm]
10		of course he knew for sure it's magic.	[contract; proclaim; concur; affirm]

6.3.3 Expanding dialogic space

The expansion of dialogic space is evident in whole class discussions to encourage multiple viewpoints. The three extracts below show how the three teachers included the differing views of students during whole class discussions. Most of the teachers' utterances to this effect consist of expository questions which are open-ended in nature.

It is typical for teachers to ask open questions – questions for which there are no fixed answers considered to be dialogically expansive. This is

especially so for questions that predict future events in the big book. In Extract 6.11, Ms Naima selected the [expand; entertain] when she asked an open question to predict a future event in the big book at Clause 451 “HY, what do you think will happen next?”. She again selected this option in response to HY’s answer as indicated by her use of ‘maybe’, keeping the dialogic space open in including his viewpoint without absolutely evaluating it as right or wrong. This allowed her to continue the conversation to include the viewpoints of other students.

In Clause 457, Ms Naima echoed IW’s answer without explicitly evaluating it; instead, she opens up the dialogic space in her next utterance when she selects the option [expand; entertain] to encourage IW to expand his answer. In Clause 460, Ms Naima repeated IW’s answer with a rising tone, adopting a neutral stance and avoiding the evaluation of his answer but at the same time opening the dialogic space for IW to continue contributing; thereby selecting the [expand; entertain] option. When IW gave his answer, Ms Naima’s response this time was to repeat his answer with a falling tone but still without any explicit evaluation. This can be interpreted as bringing the current discussion to a close as she proceeded to reveal the image found in the next page of the big book. By default, predicting questions or questions that require students to make guesses based on the evidence from the big book about events that will take place in the ensuing pages would require teachers to suspend their evaluation of their students’ answers. This is so that they could then reveal the event for which the prediction was predicated upon before checking the accuracy of students’ answers.

Extract 6.11: Expansion of dialogic space – Ms Naima

Clause	Speaker	Spoken discourse	Appraisal analysis
451	Ms Naima:	HY, what do you think will happen next?	[heteroglossic: expand; entertain]
452	HY:	The monster will die.	
453	Ms Naima:	The monster will die.	[contract; proclaim; concur; affirm]
454		Maybe.	[heteroglossic: expand; entertain]
455		IW.	[heteroglossic: contract; proclaim: pronounce]
456	IW:	The monster will run away.	
457	Ms Naima:	The monster will run away.	[heteroglossic: contract; proclaim; concur; affirm]
458		Where will he run to?	[heteroglossic: expand; entertain]
459	IW:	To the closet.	
460	Ms Naima:	Back into the closet?	[heteroglossic: expand; entertain]
461		Let's hear him.	[heteroglossic: contract; proclaim; pronounce]
462	IW:	The boy threw him away.	
463	Ms Naima:	The boy threw him away. (Ms Naima turned the page)	[heteroglossic: contract; proclaim; concur; affirm]
464		What happen?	[heteroglossic: expand; entertain]
465		What happen?	[heteroglossic: expand; entertain]

466		What happen to nightmare?	[heteroglossic: expand; entertain]
467	Many students:	(laughs)	
468	Ms Naima:	This big monster that you are so afraid of at night began to cry like a little baby.	[heteroglossic: contract; proclaim; pronounce]

In Extract 6.12, Clause 190, Ms Fong began by asking open questions, thereby selecting the option [expand; entertain]. When there was no response, she reformulated the question in Clause 192 to include her point of view, suggesting that the fisherman's wife was not happy to stay by the sea. This marks a contraction of dialogic space and serves to place students in a better position to answer the question. This could be viewed as a form of scaffolding, where teachers guide students in achieving goals that they would otherwise have not been able to reach on their own (Wood, Bruner & Ross, 1976).

The same interaction patterns occur at Clause 195 and 196 when the initial question to expand dialogic space was reformulated to contract dialogic space so that students were able to provide an answer. In Clause 200, Ms Fong expanded the dialogic space for RK but this could also be interpreted as a contraction of dialogic space for YH when he failed to give a response within the time allocated. Ms Fong kept the dialogic space open in Clauses 202 and 203 when she avoided making an evaluation of RK's answer as right or wrong.

Extract 6.12: Expansion of dialogic space – Ms Fong

Clause	Speaker	Spoken discourse	Appraisal analysis
189	Ms Fong:	<i>A fisherman lives in a hut by the sea. But what . but that wasn't where his wife wanted to be.</i>	
190		Where did his wife want o be?	[heteroglossic: expand; entertain]
191		What does it mean?	[heteroglossic: expand; entertain]
192		Was she happy staying by the sea?	[heteroglossic: contract; proclaim; concur; affirm]
193	Student:	No.	
194	Ms Fong:	No.	[heteroglossic: contract; proclaim; concur; affirm]
195		What do you think she wants?	[heteroglossic: expand; entertain]
196		Where do you think she wants to stay?	[heteroglossic: contract; proclaim; concur; affirm]
197		YH, where do you think she wants to stay?	[heteroglossic: contract; proclaim; concur; affirm]
198		Guess.	[monoglossic]
199	YH:	Hmm let's see.	
200	Ms Fong:	RK.	[heteroglossic: expand; entertain]
201	RK:	In a big house.	
202	Ms Fong:	She wants to stay in a big house.	[heteroglossic: contract; proclaim; concur; affirm]
203		Maybe. Maybe.	[heteroglossic: expand; entertain]

Ms Gan expanded dialogic space in much the same way as the other two teachers by asking open ended questions and for predicting questions, suspending evaluation of answers as absolutely right or wrong. She began in Clause 254 by asking an open, prediction question, for which students gave varying answers. Ms Gan continued to expand the dialogic space as she collated their answers in Clauses 258 and 259. At Clause 260, she acknowledged their answers without evaluating them. As mentioned earlier, while expanding the dialogic space in these ways serves to include student voices, it is necessary to close the dialogic space in order to achieve intersubjectivity.

Extract 6.13: Expansion of dialogic space – Ms Gan

Clause	Speaker	Spoken discourse	Appraisal analysis
253	Ms Gan:	<i>We have a little problem. (Gasp) So the whole class came and sit.</i>	
254		What problem do you think that they have?	[heteroglossic: expand; entertain]
255	Student:	(Overlapping answers) Sound!	
256	Student:	Rumble sounds!	
257	Student:	Thunder!	
258	Ms Gan:	The rumble sound?	[heteroglossic: expand; entertain]
259		The rumble thunder?	[heteroglossic: expand; entertain]
260		Oh, you think there's a thunder going on?	[heteroglossic: expand; attribute; acknowledge]

In Extract 6.11, Ms Naima ensured that students shared common knowledge in Clause 468, when she stated her interpretation of the image. This contracted the dialogic space selecting [contract; proclaim;

pronounce]. This is necessary as the key to the plot in the big book is the irony that the monster the main character was afraid of was actually mild mannered and hardly scary as he had envisioned. Before they could proceed with the reading of the big book, Ms Naima made this clear so that the events that unfolded after this could be understood by all the students.

However, such a closure did not happen for Extracts 6.12 and 6.13. In Extract 6.12, after accepting without evaluating the various viewpoints of students on where the fisherman's wife would like to stay, Ms Fong did not close the discussion even when an opportunity to do this presented itself several pages later when the fisherman's wife asked for a big house. This would have been a good time to close the dialogic loop by contracting dialogic space and evaluating students' earlier answers.

In Extract 6.13, Ms Gan expanded dialogic space by accepting the different answers provided by students and explicitly avoided evaluating her students' responses thus allowing students to contribute their ideas freely. The expansion of dialogic space, however, did not lead to intersubjectivity as there was no evaluation of the students' different answers. Ms Gan continued expanding the dialogic space, accepting other answers for the source of the rumbling sounds being the vibration of an unspecified object, the possibility of the main character eating the rumbling sound and a lion found in the pages of the big book in the story. Failure to contract the dialogic space presents a pedagogical problem as students were not guided in arriving at the 'right' answer when presented with the many alternatives of varying quality. In particular, the answer eating the rumbling sound needed to be addressed as it was not supported by any evidence from the big book; and hence, was a weak form of inference.

It seems that contracting the dialogic space in closing the dialogic loop proved to be challenging for the teachers in instances where the suspension of evaluation had to be maintained over a few pages before students' answers to the predicting questions could be confirmed or denied. In Ms Naima's example in Extract 6.11, the predicting question was in relation to the page immediately following the present one. Hence, the interaction pattern of expansion followed by contraction was followed through successfully. This was not the case in the extracts involving Ms Gan and Ms Fong. The outcomes of the predicting questions were revealed only several pages later – there was a lag of time before the contraction of dialogic space could be carried out in order to close the dialogic loop.

A possible solution to this issue could be to rely on other semiotic resources in attempting to close the dialogic space 'loop' of expansion followed by contraction. The fleeting nature of spoken words is well-documented which could perhaps be resolved by the use of written words. Teachers could note students' answers on the whiteboard as a reminder to address these when the words and/or images in the big book afforded such opportunities.

6.5 Conclusion

This chapter centres around the analysis of speech. The Mood analysis shows how teacher-student interactions are dominated by teacher talk with very few pupils asking teachers question. Teachers control the topics to be discussed and how long the discussion would last. Teacher authority was apparent in all three classrooms.

The Appraisal analysis reveals the ways that teachers expand or contract dialogic space. Teachers are found to have made attempts at

extending their interactions with students. The expansion and contraction of dialogic space is necessary in building knowledge. While teachers can be seen to make concerted efforts to expand the dialogic space, contracting dialogic space in order to achieve intersubjectivity was observed rarely.

The analysis thus far has been limited to the semiotic resource of the spoken language. This, however, presented problems as the analysis did not consider other semiotic resources that could shed new light on how the teachers manage dialogic space in their classrooms. In the next chapter, the analysis of gestures used by teachers in engaging students would be presented in view of the Appraisal theory.

CHAPTER 7 : ANALYSIS OF SPEECH AND GESTURES

7.1 Introduction

In Chapter 4, it was established that one of the analysis focuses would be gestures as they contribute greatly to meaning making in the classroom context. This includes how gestures are used by teachers to manage dialogic space within their classrooms. In analysing the gestures made by the three teachers, it became necessary to take into consideration the accompanying speech²¹ in view of the abundance of literature on the intersection and interconnectedness between speech and gestures (Kendon, 1983, 1987, 2004; Martin, Zappavigna, Dwyer, & Cleirigh, 2013; Martinec, 2004). An in-depth analysis requires the consideration of gestures that do and do not accompany speech. For the former, an examination of how the different modes achieve multimodal cohesion (see Section 2.2.7) or otherwise shows how teachers use speech and gesture in negotiating whole class discussions. While gestures are often accompanied by speech, there are times when gestures occur without speech. These gestures are referred to as 'protolinguistic' and 'epilinguistic', following Clareigh (see section 4.4.2).

The analysis in this chapter will proceed with the top-down approach followed by the bottom-up approach to analysing gestures as detailed in Chapter 4. The top-down approach involves using Hood's Engagement system (2011) to analyse the data while the bottom-up approach surveys the data and analyse it without any pre-determined system. This enables a robust analysis of the gestures used by the three teachers although we should note that the context for which Hood

²¹ For the sake of brevity, the term 'speech' is used to refer to the semiotic resource of language in the auditory modality.

developed the Engagement system was a class of adult learners in Australia. There may be differences in the way the three teachers of this study used gestures due to the young children and the Asian context. As such, combining the top-down and bottom-up approaches should account for the different gestures used by teachers if these differ from Hood's Engagement system.

This analysis is performed using the software Multimodal Analysis Software (Multimodal Analysis Lab, 2013). The software allows for the frequency counts of the gestures in focus, the start and end times of the particular gestures and the duration for which the gestures were performed.

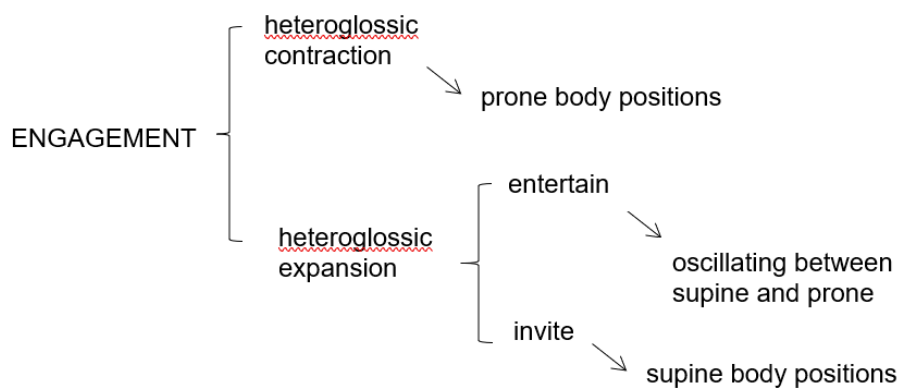
7.2 Appraisal analysis: Expansion of dialogic space

As mentioned in Chapter 4, Hood's framework for analysing gestures for the system of Engagement is adopted here (Hood, 2011). The analysis of gestures will reveal how teachers use of gestures in expanding or contracting dialogic space.

Teachers often invite students to contribute during class discussions. In the present research, it would be expected that teachers would involve students in discussions in the Main Lesson Genre: Big Book Reading (see Section 5.2) where teachers would read a big book for the first time to their students. Apart from engaging students using the linguistic mode, teachers also do this through their gestures. In Hood's framework (reproduced below – see Fig. 7.1), the expansion of dialogic space through gestures can be realised in two ways – invite or entertain. 'Invite' may be realised by holding the palm in the supine position or pointing to a particular student using the index finger with the palm facing upwards in the supine position (Hood, 2011) when nominating students to

contribute to the discussion. In entertaining, teachers allow alternative views to surface, thereby opening up dialogic space. Hood noted that this is realised by the oscillation of hands, heads or upper bodies, rotating between supine and prone positions. When dialogic space is contracted, the hand is in prone position, with the palm facing downwards.

Figure 7.1: Engagement system of network for body language (Hood, 2011, p. 48)



As mentioned earlier, one of the ways that the three teachers invited students to contribute to the on-going discussion was by using the supine hand gesture which is the display of the hand(s) with the palm(s) facing upwards.

Table 7.1: Frequency of supine hand gestures displayed by teachers

Teacher	Frequency
Ms Fong	19
Ms Gan	61
Ms Naima	7

Table 7.1 shows the frequency in which the three teachers display the supine hand position during the phase Main Lesson Genre: Big Book Reading of their lessons. The frequency count is based on the coding of

the supine hand position exhibited by the teachers in the video data. This hand gesture may be carried out with one or both hands. Coding for the supine hand position disregards this distinction. Where one hand was used, the teachers usually had pointers in their other hand and would be simultaneously pointing to something in the big book while gesturing with the other hand in the supine position. Where the teachers used the hand holding the pointer, the supine hand position is noted for occasions where the palm is facing upwards, usually with the fingers folded into a fist. This gesture shows that there is wilful intent to communicate – the pointer is an extension of the hand and hence involved in the natural gestures performed. However, the above frequency count does not include occasions when the supine hand holding the pointer was used to point to the words or images in the big book. It is deemed that this gesture may or may not constitute an intent to communicate or an enactment in building social relations within the classroom context. This is consistent with the analysis of the semiotic resource of speech in Chapter 6, where the words read by the teachers were excluded in the analysis. The bottom-up approach in Section 7.4 will explore the possibility of the effect of the supine pointing gesture in relation to dialogic space.

A difficulty that arose in the coding is the delineation between one gesture and the next. As explained in Chapter 4, Section 4.4.2.2, the unit of analysis is the gesture phrase which is made up of the preparation, the stroke and the optional retraction phase. When a teacher held the supine hand position, the coding of this gesture would begin from the moment the palm was faced upwards till the time this hand gesture was retracted, moved to form another hand gesture or moved to the rest position, where the hand was placed in a dormant position. The transition from one gesture to the next is often quite clear. However, there are occasions

when the teachers held the supine hand position and then move the hand to another gesture while maintaining the same upward-facing open palm hand position. In such cases, the accompanying speech serves as a basis for interpreting the gesture phrase. Where there is no accompanying speech, the speech before or after the gesture in question is considered.

Once the hand assumed the 'rest position', the gesture phrase of the supine hand gesture would be deemed to have ended. The 'rest position' is derived from the repeated viewings of the video data. During the Big Book Reading phase, Ms Gan continually held the pointer in her right hand. In the rest position, this hand would either hang in the air or rest on the top of the book stand; whilst her left hand would either hang at her side or hold the side of the book (see Fig. 7.2a and 7.2b). The rest positions of Ms Fong and Ms Naima are similar. They both held pointers in their right hands for which the rest position would be either the right hand pointing to something in the big book and the other hand across the lap or both hands folded across their laps, as shown in Fig. 7.3 and 7.4. In resting position, both their left hands are folded across their laps.

Figure 7.2a: Rest position of Ms Gan with right hand on top of big book and the other hanging at the side



Figure 7.2b: Rest position of Ms Gan with right hand hanging in the air and the other holding the side of the book



Figure 7.3: Rest position of Ms Naima with one hand across lap



Figure 7.4: Rest position of Ms Fong with both hands folded across the lap



Another set of gestures that is excluded is when the teachers point to the big books during their interactions with their students. All three teachers point to the words from left to right while they read to their students, one of the guidelines stipulated by STELLAR. In coding the teachers' hand positions for supine or prone, it was ascertained that these were dependent on their body positions and postures and what was

physically natural for them to gesture. Ms Naima, who was seated with the Big Book on her right, had her pointer in her right hand when she pointed at the Big Book. She would at most times point to the page further away from her in the prone position and the page closer to her in the supine position. Ms Fong was also seated with the Big Book on her right. She often transferred her pointer between hands and adjusted the big book stand. There was no pattern in her supine and prone hand positions while pointing to the big book. She used both hand positions with the pointer in either of her hands to point to the page closer to or further away from her. Ms Gan was standing to the right of the Big Book and because of this, she had more freedom in moving her body and body posture around the Big Book. She transferred her pointer from one hand to another from time to time. When she was standing straight upright and her hand higher than the top edge of the Big Book, she would adopt the supine hand position to point to the words or pictures on the book. She sometimes bent her knees into a half sitting position, pointing to the big book in supine or prone hand positions. Like Ms Fong, there was no discernible pattern to Ms Gan's hand positions while pointing to the Big Book. Because of the highly variable hand positions adopted by the teachers, it is reasonable to conclude that these do not seem to contribute to meaning making in the social interactions between teachers and students. In other words, the supine or prone hand positions do not seem to have any bearing on the expansion or contraction of dialogic space. However, the close review of the video data revealed that what the teachers pointed to was of greater importance than the hand positions they adopted while pointing. This will be discussed in section 7.4.

Ms Fong, Ms Gan and Ms Naima used the supine hand position 19, 61 and 7 times respectively. The great variation in the number of gestures

for the supine hand position of the individual teachers suggests that these teachers differ in the way they communicate with their students and warrants further examination of the way the gesture is used by the different teachers. Given the age of the children, it may also indicate that some children (e.g. in Ms Gan’s class) more than others (e.g. in Ms Naima’s class) were more accustomed to seeing gestures and understanding their communicative intents.

Table 7.2: Purposes of the supine hand position

Purpose of the supine hand position	Ms Fong	Ms Gan	Ms Naima
Inviting contribution	9	34	5
Acknowledging answers	2	9	0
Pointing to student to nominate them	5	11	2
Rhythmic beat	8	14	0
Act out word/phrase	2	0	0

Closer examination of the frequency counts shown in Table 7.1, reveals that the supine hand positions are used by teachers for a variety of purposes: inviting student contribution, acknowledging students’ answers, acting out words, pointing and rhythmic beats as shown in Table 7.2. In determining these purposes for the supine hand gesture, it became necessary to consider the accompanying speech; thus, the modes of gesture and speech are analysed as a multimodal phenomenon (O’Halloran, 2011, p.21).

When the three teachers used the supine hand gesture to invite contributions from students, the accompanying speech was heteroglossic in nature in the interrogative form. These were realised as expository questions, which select the option [expand: entertain], or leading

questions, which select the option [contract: proclaim; concur]. In these instances, the semiotic resources of spoken language and gestures work together to amplify the meaning of inviting contributions from students. From Table 7.2, it can be surmised that Ms Gan used the supine hand position the most for all categories compared to the other two teachers. In inviting students to contribute, she frequently opened her hand with her palm facing upwards while asking questions related to the big book. It would seem that she was the most open to contributions from her students based on the number of times she used the supine hand gesture but it would need to be ascertained whether she was just very animated in her pedagogic discourse. This will be reviewed again in view of her gestures in contraction of dialogic space in the Section 7.3.

Figure 7.5: Supine hand position of the three teachers



For Ms Gan and to a lesser extent, Ms Naima, the supine hand gesture was also used when they nominated particular students to answer their questions. This was realised by an outstretched hand with the open palm facing upwards in the direction of the nominated student except for one occasion, where Ms Naima pointed to a student using her index finger tilted an angle in supine position. Pointing with the index finger is considered to be a rude gesture in Asian cultures (Greene & Goodrich-Dunn, 2014) - Ms Naima's turning of the hand in the supine position could be her way of 'softening' the gesture. Hood (2011) describes pointing gestures as doing the work of the textual metafunction to make meaning in

identification. In these instances, the textual metafunction is fused with the interpersonal metafunction. While the teachers identified certain students through pointing, they were also managing dialogic space. By nominating one student in particular, the teachers effectively expanded the dialogic space for this student while contracting it for the rest of the students. This is necessary in managing turn-taking during whole class discussions. Ms Fong did not use the supine hand gesture in this manner. When she nominated students to answer, she relied only on the spoken word and gaze.

Another way that Ms Fong and Ms Gan used the supine hand gesture was to acknowledge students' answers. This was done while repeating students' answers in the declarative form with a falling tone. These are heteroglossic in nature, selecting the option [heteroglossic: contract: proclaim: concur: affirm]. This communicated to students that their answers had been heard and evaluated to be correct. The two semiotic resources of the supine hand gesture and speech do not work together in these instances – the supine hand gesture does not signal the opening of dialogic space when taken in context with their speech.

While Ms Gan used the supine hand gesture in the manner just described, she also fused the interpersonal and textual metafunctions by pointing to the general direction of the student(s). For example, Ms Gan pointed to the students who had provided the answers when she said “Doing their work, reading their books”, as shown Extract 7.1.

Extract 7.1: Fusion of interpersonal and textual metafunctions – Ms Gan

Clause	Speaker	Spoken discourse	Appraisal analysis
153	Ms Gan:	What are they busy doing something?	[heteroglossic: expand; entertain]
154	Student:	Reading!	
155	Student:	Doing their work!	
156	Ms Gan:	Doing their work,	[heteroglossic: contract: proclaim: concur: affirm]
157		reading their books	[heteroglossic: contract: proclaim: concur: affirm]

While Ms Naima did not use the supine hand gesture in this manner, she acknowledged students' answers by using other gestures such as nodding her head or using the semiotic resource of speech. In Extract 7.2, she was observed to have used both of these semiotic resources in Clause 92 – she nodded her head in agreement at the word 'toys' when saying "You see toys on the floor".

Extract 7.2: Ms Naima's use of other semiotic resources to acknowledge students' answers

Clause	Speaker	Spoken discourse	Appraisal analysis
89	Ms Naima:	What do you see on the floor?	[heteroglossic: expand; entertain]
90		Um EL.	[heteroglossic; contract; proclaim; pronounce]
92	Ms Naima:	You see toys on the floor.	[heteroglossic: contract: proclaim: concur: affirm]

In rhythmic beat, the supine hand moves in tandem with the speech. This is what Cleirigh refers to as 'linguistic body language' (see Section 4.4.2.2). Ms Fong and Ms Gan used this gesture 8 and 14 times respectively. Ms Naima did not use this gesture at all, preferring to vary her volume and tone of voice to communicate emphasis in her speech. For instance, in acknowledging a student's answer, Ms Naima repeated it with a rising tone, peaking at the word 'bed' which was said louder than the other words in the words: "Because there's a BED, right?" At the word 'bed', she gestured with her supine hand towards the image in the big book.

On most occasions when Ms Fong and Ms Gan used the rhythmic hand gesture with supine palms, there is a fusion of the interpersonal and textual meaning – the supine hand position conveys the opening of dialogic space for students to contribute to the discussion while moving the supine hands in conjunction with the speech in rhythmic beats communicated emphasis. This could be seen when Ms Gan asked the question, "Is it louder? Is it bigger than that sound just now?", the supine hands in rhythmic beat on the words 'louder' and 'bigger than that sound just now'. In this case, there is harmony in the multimodal phenomenon as both the gestures and the speech work together at making meaning. At other times, the rhythmic movement of the supine hands did not seem to encourage student contribution; conveying the meaning of emphasis only. This is evident when Ms Fong gave a definition of a mansion to her students: "A mansion is a big, 2 or 3 storey gigantic house" while gesticulating with both hands in rhythmic beats in supine hand position to the words "a big, 2 or 3 storey gigantic house". Based on the declarative form and the falling tone of her speech, it could be concluded that the supine hand position was not intended to open dialogic space, supported

further by the fact that Ms Fong promptly moved on to the next question after providing the definition of mansion.

There were times when the supine hand gesture was used by teachers for more than one purpose. On one occasion, Ms Fong used the same supine hand gesture to invite students to contribute but also to act out certain words. She showed students how a fish would swim freely in the sea while asking the question, "But then again, is it the same as being able to swim in the ocean?". She did this by gesturing with both her hands in supine positions, her left hand holding the pointer whilst making a circular motion in front of her. This is an interesting example as one would normally swim with the palms facing downwards. In this instance, Ms Fong 'swam' with her palms facing upwards, leading to the conclusion that the hand gesture was not merely to act out the word 'swim'. There is therefore a fusion of the interpersonal and ideational metafunctions where the interpersonal is realised by the supine hand position and the ideational is realised by the circular motions imitating the swimming action of the fish.

On one other occasion, Ms Fong used the supine hand position to emphasise the word 'all' in the sentence "And she wants all the people to cheer for her" but also to act out the word 'all'; fusing the interpersonal and ideational metafunctions respectively.

While the supine hand positions have been shown to expand dialogic space, there are instances when the teachers used this position but are actually contracting the dialogic space. This is apparent when the teachers asked a series of questions, starting with a dialogically expanding open question followed by questions that progressively contract the dialogic space accompanied by the supine hand position. These questions serve to eliminate choices for students so that the scope of answers

available to them are reduced and could be viewed as a scaffolding device used by teachers (Wood, Bruner, & Ross, 1976).

The oscillation of the hand for the purpose of entertaining was observed only once in Ms Gan's lesson, where she rotated her hand at the wrist to encourage a student to expand on his answer. This gesture, therefore, has little importance as a meaning-making resource for the teachers. In this aspect, the semiotic resource of speech seems to be used by the teachers in expanding dialogic space when they probed students with follow-up questions, selecting the option [heteroglossic: expand; entertain] as seen in Chapter 6 earlier.

7.3 Appraisal analysis: Contraction of dialogic space

The prone hand position with the palm facing downwards signals the closing of dialogic space where teachers discourage students from contributing to the on-going discussion. The identification of the prone hand position is challenging because the rest positions adopted by the teachers often involved placing their hands in the prone position. This posed the question of whether there was wilful intent to communicate during this rest position. Through repeated viewings of the video lessons, it was established that due to the relaxed posture of the hand and in the context of the other semiotic resources used by the teachers, it is doubtful that the teachers had intended for the gesture to be a meaning-making resource in communicating to their students. Ms Naima was observed to hold this rest position when she was reading the big book to her students - with the pointer in her right hand, she placed her left hand either across her laps or on her left thigh. She often adopted this rest position for both her hands when she questioned her students, relying on the semiotic resource of speech to engage her students. Ms Fong similarly held the

pointer in her right hand. At rest position, she was seen clutching to the side of her chair with a piece of tissue in her left hand. At other times, Ms Fong adopted the same positions as Ms Naima - left hand across her lap or on her left thigh. Because Ms Gan stood throughout the Main Lesson Genre: Big Book Reading, her resting position differed from the other two teachers. With the pointer in her right hand, the rest position of her left hand was either hanging by her side with a slightly bent elbow or arm bent with fingers lightly touching the side of the big book.

It has already been established that the hand positions of teachers when they pointed at the Big Books may or may not have an effect on dialogic space. As such, these have been excluded from the frequency count for the prone hand positions. The rest positions detailed above have also been excluded.

Ms Fong, Ms Gan and Ms Naima adopted the prone hand positions on three, nineteen and five occasions as shown in Table 7.3. Ms Gan's use of this hand position is the highest as compared to Ms Fong and Ms Naima, although as we will show she used the gestures mostly in an intensive single episode in the lesson. As stated earlier, given the age of the children, the gesture, when not much was used, may not have carried clear meaning.

Table 7.3: Frequency of prone hand gestures displayed by teachers

Teacher	Frequency
Ms Fong	3
Ms Gan	19
Ms Naima	5

The variation between teachers may be explained by looking into the purposes for which they use the prone hand position. These purposes were identified to be: discouraging student contribution, acting out of a word/phrase and pointing to a general direction or at a student as shown in Table 7.4. These are not mutually exclusive categories as overlaps often occur as is the case when Ms Gan pointed to a student, GC, using the prone hand position while holding on to her pointer and saying, “Go!”, the prone hand position served to close the dialogic space while pointing to the said student.

Table 7.4: Purposes of the prone hand position

Purpose of the prone hand position	Ms Fong	Ms Gan	Ms Naima
Discourage students' contribution	0	5	0
Discourage students' contribution and pointing	0	12	1
Act out word/phrase	3	2	4

Ms Gan and Ms Naima used the prone hand position to discourage students' contribution on seventeen and one occasion respectively. On this one occasion, Ms Naima stopped a student from answering her question by lifting her left hand in the prone position in the direction of the said student while calling out another student's name. This effectively stopped the first student from contributing his/her answer. The prone hand gesture fuses the interpersonal and textual metafunctions by contracting the dialogic space and pointing in the direction of the student. Ms Gan used this combination of gestures twelve times; the other five times were used to discourage students' contribution only. Ten out of the twelve times

occurred in rapid succession within 12 seconds as can be seen in Table 7.5.

Table 7.5: Ms Gan's use of the prone hand position within 12 seconds

Start time (h:mm:ss)	End time (h:mm:ss)	Purpose	Ms Gan's speech
0:01:18	0:01:19	discourage student contribution & pointing to the back of the class	Can you please stand over there
0:01:20	0:01:20	discourage student contribution & pointing to GC	GC
0:01:20	0:01:20	discourage student contribution & pointing to the back of the class	You stand over there
0:01:21	0:01:21	discourage student contribution & pointing to GC	GC
0:01:22	0:01:24	discourage student contribution & pointing to the back of the class	Behind means behind
0:01:24	0:01:24	discourage student contribution & pointing to GC then the back of the class in one swift motion	Go
0:01:25	0:01:27	discourage student contribution & pointing to the back of the class	Stand
0:01:27	0:01:28	discourage student contribution & pointing to GC then the back of the class in one swift motion	Go
0:01:29	0:01:29	discourage student contribution & pointing to DL	DL, don't touch him
0:01:30	0:01:30	discourage student contribution & pointing to GC	GC

This episode started 1 minute 18 seconds into the Main Lesson Genre: Big Book Reading phase. With the pointer in her right hand, Ms Gan pointed to GC or DL, the back of the classroom or between GC and the back of the classroom in one swift motion. This was accompanied by a series of imperatives interspersed with the calling out of GC's name, incrementally getting louder and harsher in tone. This multimodal phenomenon can be said to comprise semiotic resources that work together cohesively as each amplifies the meaning of the other.

Figure 7.6: Prone hand position of Ms Gan in the 12 second-block



As mentioned earlier, pointing to people is frowned upon in the Asian culture. In this episode, Ms Gan used the pointer as an extension to her hand in prone position when pointing to GC and DL. In particular, when pointing to GC, she did so in short, quick movements with considerable force. The combination of the stabbing, pointing movements and imperatives spoken in a harsh tone can be considered to be the most aggressive interaction within the Main Lesson Genre: Big Book Reading phase amongst the three teachers.

Ms Fong used the prone hand position three times as shown in Table 7.6. These happened with reference to a picture of a fisherman holding on to a net on his boat found in the big book when she acted out the phrase 'casting a net' as seen in Extract 7.3. In all three instances, Ms Fong started with a closed fist in prone position before moving them

forward in an arc while opening her palm at the same time. This ended in open palms in prone position. In the first instance, the gesture was performed without any accompanying words. Prior to this, Ms Fong had asked the question, “What happened here?” while pointing to the picture of the fisherman in the big book. She then said, “Make a guess” and acted out the casting of the net. In the second and third instances, this gesture was accompanied by the underlined words in “What’s he doing?” and “What is that?” respectively. Both these questions select the option [heteroglossic: expand; entertain] while her hands were in the prone position. Based on the context, it could be concluded that the prone hand position here functioned to act out the words and not to expand the dialogic space, as suggested by the appraisal analysis of the semiotic resource of speech - Ms Fong’s questions.

Table 7.6: Ms Fong’s use of the prone hand position

Start time (h:mm:ss)	End time (h:mm:ss)	Purpose	Speech
0:12:13	0:12:14	Acting out word	-
0:12:19	0:12:20	Acting out word	What's <u>he doing?</u>
0:12:24	0:12:25	Acting out word	What <u>is that?</u>

Ms Gan used the prone hand position twice to act out words/phrases. The first instance was when she made a downward gesture with her left hand in prone position while saying “sitting on their desks” in the interrogative “Are they sitting on their desks?” (Clause 218). The appraisal analysis of her speech would suggest an expansion of dialogic space, selecting the option [heteroglossic: expand: entertain]. Immediately following this, Ms Gan waited for students to answer and accepted the answers called out; hence, confirming the analysis that the

gesture was used to act out the phrase 'sitting down'. The second instance was when she made the same downward gesture with her left hand in prone position whilst uttering the phrase "on the mat" in "You are right, on the mat" (Clause 251), after which her left hand retracted back into rest position – by the side of her body. The function of this gesture could arguably be to contract dialogic space while acting out the phrase 'on the mat'. However, the duration of the gesture lasting a quick 2 seconds and its conjunction with the phrase 'on the mat' favour the interpretation of the function being that of acting out the phrase.

Ms Naima used the prone hand gesture to act out words or phrases four times as seen in Table 7.7. The first time she used the gesture was in conjunction with the words 'Singaporean context' to highlight the lexical variation of closet and cupboard, the latter of which is the more familiar term in Singapore English: "Okay so closet, another word for Singaporean context will be cupboard okay" (Clause 151). The appraisal analysis for this selects the option [heterogloss: contract: proclaim: concur]. This gesture was done with her left hand and started from rest position; that is, left hand across her lap. Ms Naima then lifted her left hand and moved it in a downward, straight motion before retracting it into the rest position again. It could seem that the gesture, by virtue of its prone hand position, and the speech work together in amplifying the meaning of contracting dialogic space but the quick movement of the gesture and the timing of the gesture to coincide with the phrase 'Singaporean context' render this interpretation highly unlikely.

Extract 7.3: Transcript of Ms Fong's use of the prone hand position

Clause	Speaker	Spoken discourse	Appraisal analysis
305	Ms Fong:	What happened here?	[heteroglossic: expand; entertain]
306		Make a guess. [acting out cast a net with both hands]	[heteroglossic: expand; entertain]
307		Make a guess (in a whisper).	[heteroglossic: expand; entertain]
308		WS, what's that?	[heteroglossic: expand; entertain]
309		What's that?	[heteroglossic: expand; entertain]
310		What did he go?	[heteroglossic: expand; entertain]
311		Where did he go?	[heteroglossic: expand; entertain]
312		What's <u>he doing</u> ? ²²	[heteroglossic: expand; entertain]
313	Student:	(unclear)	
314	Ms Fong:	What <u>is that</u> ?	[heteroglossic: expand; entertain]
315	Student:	(unclear)	
316	Ms Fong:	YM, what's he doing? (pause)	[heteroglossic: expand; entertain]

This same reasoning applies to the other three times that Ms Naima used the prone hand position to justify the interpretation that the gestures were used to act out a word or phrase. The second time she used the gesture was accompanied by the phrase 'jump out', said quickly to convey

²² The underlined words denote the simultaneous gesturing of the hands in prone position.

an element of surprise. This was realised in the gesture of both hands by an upward arch in a swift, forward motion in prone position. In the third instance, Ms Naima used the prone hand gesture in a downward motion to act out the phrase ‘sit down’ in “Can CL and all of you sit down please?” (Clause 254). The same gesture accompanied by the same phrase was repeated a while later when she suggested to students to sit down: “Maybe can sit down” (Clause 499).

Table 7.7: Ms Naima’s use of the prone hand position

Start time (h:mm:ss)	End time (h:mm:ss)	Purpose	Speech
0:14:07	0:14:08	Acting out word	Okay so closet, another word for <u>Singaporean context</u> will be cupboard okay.
0:16:35	0:16:35	Discourage student contribution & pointing	CL?
0:17:10	0:17:10	Acting out word	The monster will <u>jump out</u>
0:17:31	0:17:33	Acting out word	Can CL and all of you <u>sit down</u> please.
0:25:56	0:26:00	Acting out word	Maybe <u>can sit down</u>

From the prone hand analysis, only Ms Gan and Ms Naima used this hand position to discourage student contribution – a total of 17 and one time(s) respectively. It can therefore be surmised that the teachers rely less on the prone hand gesture for the purpose of contracting dialogic space when compared to their use of the supine hand position in opening dialogic space. This can perhaps be attributed to the STELLAR programme where “students get to speak extensively, discussing and

sharing their views with the teacher and their peers” (MOE, n.d.b, para 3) and in the process, “build students’ confidence in speech... and enhance their learning of the language” (MOE, n.d.b, para 3).

Thus far, the teachers’ gestures have been analysed using Hood’s framework for the opening or contracting of dialogic space through the supine or prone positions of the teachers’ hands. It is necessary, however, to apply a bottom-up approach to the data as well in order to obtain a more complete analysis of how the teachers were using gestures during their lessons. This will be discussed in the next section.

7.4 Bottom-up approach: Gestures used by teachers

The teachers used many gestures while conducting their lessons. Gestures where the supine or prone positions were used have been discussed in the earlier sections. Besides these two positions, teachers do use other gestures. The range of gestures used can be found in Table 7.8. All of these gestures are descriptive in nature except for the category ‘act out word/picture’, which is a function of the gestures. The decision to group these gestures into a function rather than descriptions of the various gestures was based on the sheer number of instances when the three teachers acted out a particular word or thing found in the pictures of the big book – a total of 18, 37 and 36 times for Ms Fong, Ms Gan and Ms Naima respectively.

All three teachers used these gestures: acting out word/picture, adjusting the book on the stand, closing the book, placing a finger to the lips, flipping their hair to the back, placing their hands in rest position, pointing to a word, pointing to a picture, pointing to a student, pushing the book stand, putting the big book on the stand, putting up their fingers to

show a number, rhythmic movements, sweeping movements, turning the page and waving of the index finger.

Table 7.8: Gestures used by the three teachers

Gesture	Ms Fong	Ms Gan	Ms Naima
Act out word/picture	18	37	36
Adjusting spectacles	-	-	2
Adjusting book	6	2	2
Close book	2	1	2
Clap	7	-	-
Finger to lips	1	2	2
Flip hair to the back	4	41	2
Hand behind the back	-	1	1
Hands on hip	-	-	2
Gesturing with puppet	5	-	-
Hands in rest position	110	47	60
Hands raised at the sides of head	-	-	1
Hold mic in one hand	-	-	6
Holds the edge of the page	7	13	-
Hold pointer/hand in the air	5	35	-
One hand bent raised up to ear	-	2	3
Oscillating hand	-	1	-
Peel off paper	21	-	7
Point to word	42	53	36
Point to picture	41	46	40
Pointing to a student	5	42	3
Push book stand	7	2	1

Put big book on stand	1	2	1
Put up fingers show number	2	6	2
Raise hand	-	2	8
Rhythmic movement	40	117	23
Rub nose	38	3	0
Scratch face/hand	3	-	2
Palm -stop sign	-	5	2
Sweeping movement	1	2	6
Take out handphone	-	-	1
Turn page	24	22	23
Waving of index finger	1	33	2

Acting out the words or objects in the picture could increase student engagement and promote greater understanding of the big books. In acting out the words or objects in the picture, the teachers used their hands, their heads, their facial expressions and their entire body. Ms Fong gestured in this manner for about half the number of times as the other two teachers. This could be due to the nature of the books read by the teachers. There were many concrete actions or objects in Ms Gan's and Ms Naima's big books which could be easily acted out; for example, Ms Gan drew imaginary pointed eyebrows as she said, "OK, so the eyebrows ah, tells you the expression" and Ms Naima mimicked the action of the main character in her big book by holding up both hands in a fist and peering above an imaginary blanket as she read from the big book, "I peeped sometimes". In contrast, the big book, "The fisherman and his wife" read by Ms Fong had very few action verbs or in the transitivity system of Halliday's Systemic Functional Linguistics, material processes. The processes found in this big book are mostly mental processes (e.g.,

He knew if he didn't, she'd give him no rest), behavioural (e.g., She cried and she sighed), verbal (e.g., Then she said that a mansion was much more her style) and relational (e.g. This place is too small). As such, the opportunities that were presented to Ms Fong to act out the words or objects in pictures were limited due to the nature of the big book. Further, the big book contained many abstract concepts such as 'delay' and 'contented' for which Ms Fong had to resort to the semiotic resource of speech to explain their definitions.

Pointing to the words and pictures in the big books are also used by all three teachers. The supine and prone gestures made by the teachers while pointing to the big books have been disregarded in the discussion of the previous sections due to the conclusion that the position of the hands alone when used for that purpose had no clear role in the analysis of dialogic space. However, the object of identification in the big book through the gesture of pointing is an important aspect in determining whether the semiotic resources of speech and the pointing gesture work together in opening or contracting dialogic space.

An observation of this was when the analysis of the teacher's speech in the interrogative form select the option [heteroglossic: expand: entertain] but at the same time, pointed to an object or word that would make the answer quite obvious to students. This would mean that the initial analysis of her speech is misleading when the pointing gesture is taken into consideration in the analysis. The initial analysis would therefore be amended from [heteroglossic: expand: entertain] to [heteroglossic: contract: proclaim: concur]. This happened twice during Ms Fong's lesson and four times in Ms Gan's and Ms Naima's lessons, as shown in Table 7.9.

Table 7.9: Instances when [heteroglossic: expand: entertain] changes to [heteroglossic: contract: proclaim: concur] in consideration of the pointing gesture

No.	Clause	Speaker	Spoken Discourse	Gesture
1	131	Ms Fong	<u>What else is there?</u>	Point to the picture of a boat; circular motion around the boat
2	394	Ms Fong	Because <u>what?</u>	Point to the word 'talk'; static
3	36	Ms Gan	What makes you think it's about scary stuff?	Point to the title 'The Growl'; static
4	101	Ms Gan	What is <u>with her on the desk?</u>	Point to picture of a book; static
5	127	Ms Gan	<u>What is she looking at now?</u>	From girl to other students behind her; move pointer in a straight line from girl to other students
6	577	Ms Gan	So what makes the <u>sound go away?</u>	Pointing to picture of students eating; move from left to right
7	10	Ms Naima	But <u>what do you see on the cover of this book?</u>	Monster; static
8	54	Ms Naima	What time <u>of day do you think it is?</u>	Moon; tap pointer at one point
9	288	Ms Naima	<u>how do you know it's not the same night?</u>	Moon; static
10	379	Ms Naima	Ah <u>what happen?</u>	lamp; static

Ms Fong's question in Clause 131, "What else is there?" was initially analysed as [heteroglossic: expand: entertain] as it was an open question that recognised the possibility of alternative answers. When the question was asked, students had the whole picture in view and could have potentially given a number of answers such as, for example, the sea, a few seagulls, a boat and the sun. However, by pointing specifically to the

boat in the picture, Ms Fong effectively narrowed the answer to just one – the boat. This changes the initial analysis to [heteroglossic: contract: proclaim: concur]. In this example, Ms Fong pointed to the object which was also the answer required from her students. This is similar for the rest of the examples except for Clauses 54, 288 and 379 in Ms Naima's lesson. In Clause 54, when Ms Naima asked, "What time of day do you think it is?", she pointed to the moon. While Ms Naima narrowed the scope of her students' answers by pointing to the moon, her students would need to infer that the answer was 'night' instead of 'moon'. As such, Ms Naima's pointing gesture contracted dialogic space but required more from her students than the examples from Ms Fong or Ms Gan. Similarly, in Clause 288, Ms Naima's students had to compare the shape of the moon found in the present page, a crescent moon, with the one from the previous page which was a full moon to show that the two pages refer to two different nights. In Clause 379, Ms Naima asked her students, "Ah what happen?" while pointing to the lamp, requiring them to infer that the lamp had been switched on thereby flooding the room with light. Again, in these two instances, Ms Naima contracted the dialogic space by pointing to the moon and the lamp respectively but her students had to apply their inferencing skills in order to obtain the right answer.

Pointing to students have been discussed earlier in Sections 7.2 and 7.3 but it is worth mentioning the variance found between the teachers. Ms Fong and Ms Naima pointed to their students 5 and 2 times respectively whereas Ms Gan pointed at them a total of 42 times. As discussed earlier, pointing directly at a person is considered inappropriate in the Asian culture. It is worth noting here that Ms Gan used the pointing gesture in prone position to nominate her students 19 times during her lesson. These instances could mark a discord in the multimodal

phenomenon (O'Halloran, 2011) as the semiotic resource of speech could mean an expansion of dialogic space following Martin and White (2005) but the prone position indicated a contraction of dialogic space (Hood, 2011). The high number of pointing gestures at students is telling of Ms Gan's authoritarian relationship with her students. Both Ms Fong and Ms Naima pointed to their students with palms facing upwards, either with open palms or with fingers curled in when they used the hand holding the pointer, softening the pointing gesture.

Rhythmic movements are hand or to a lesser extent, head movements that are executed in co-ordination with the speech. These were used by teachers to punctuate selected words, usually content words and/or words that were stressed to show emphasis. All three teachers used the rhythmic gestures in varying degrees - Ms Gan used this gesture the most at 117, Ms Fong at 40 and Ms Naima at 23. In Extract 7.4, Ms Gan made the rhythmic hand gestures in conjunction with the stressed words underlined, which were also the content words. In these instances, Ms Gan's rhythmic gesture was combined with the supine hand position, fusing the interpersonal with the textual metafunctions.

Extract 7.4: Transcript of Ms Gan's use of the rhythmic gesture

Clause	Speaker	Spoken discourse
394	Ms Gan	OK, what <u>else</u> besides the <u>students</u> and the <u>teachers</u> ?
395		What can you <u>see</u> ...er, <u>find</u> in the <u>classroom</u> ?

Both Ms Fong also used the rhythmic movement in the same way – to add emphasis. Ms Fong often accentuated the beat of her speech by waving her pointer in the air. At times, she also made head movements in conjunction with her speech, shown as underlined, in Extract 7.5 :

Extract 7.5: Transcript of Ms Fong’s use of the rhythmic movement using her head

Clause	Speaker	Spoken discourse
391	Ms Fong:	How did he know it was magic?
392	Student:	Shiny shiny fish.
393	Student:	He could talk.
394	Ms Fong:	Because what ?
395	Student:	The fish could talk.
396	Ms Fong:	Because the fish could talk .

Ms Fong moved her head in tandem with the beat of her words as shown in bold. In Clause 394, Ms Fong asked the question ‘Because what?’ with the stress on ‘what’ to draw attention to the fact that she required the student to repeat his/ her answer. In Clause 396, Ms Fong moved her head as she said the words in bold in order to communicate that the student’s answer was right.

Ms Naima made use of head and hand movements as well in her rhythmic movement though she communicated emphasis mainly through the pitch and volume of her voice and sometimes, these co-ordinated with her hand and/or head movements. One such instance is shown in Extract 7.6. At Clause 312, Ms Naima used her extended index finger to move rhythmically in tandem to the beat of the underlined words, punctuating these further through her use of stress, pitch and tone in her voice. This multimodal phenomenon of combining gestures and aural modalities effectively communicates the importance of her question which is based on a key turning point in the story.

Extract 7.6: Ms Naima's use of rhythmic head movements for emphasis

Clause	Speaker	Spoken discourse
308	Ms Naima:	Okay IW, how does he look now?
309	Student:	Brave
310	Ms Naima:	He looks more brave.
311		Why is he so brave?
312		<u>What</u> do you <u>think</u> he is <u>going to do</u> ?
313		What is he going to do, Sri?
314	Student:	The monster come out
315		then he shoots it

There were other gestures that were only used by certain teachers. Ms Fong clapped her hands, together with her students, when a student gave a favourable response. In Extract 7.7, Ms Fong prodded students for a more specific answer to her question “What’s over here?” when Candice gave a vague answer “the wife’s husband”. Another student provided the right answer “fisherman” and was rewarded with a round of applause. In this instance, Ms Fong initiated the applause while the students immediately followed suit. It is clear that clapping to acknowledge a student’s correct response was part of the class culture. This positive classroom culture exudes warmth and is a display of unity and support among the students.

Extract 7.7: Transcript of one instance of Ms Fong's use of the clapping gesture

Clause	Speaker	Spoken discourse
118	Ms Fong:	Okay what's over here?
119		Tell me.
120		Who can tell me?
121		CD.
122	CD:	Er the wife's husband.
123	Ms Fong:	The wife's husband.
124		Okay the wife's husband.
125		So what is he?
126	Student:	Fisherman.
127	Ms Fong:	He is a fisherman,
128		very good. (class applauds)

Ms Fong was also the only teacher who used a puppet as a prop during her lesson. She gestured with the puppet five times – the first was to introduce the character of the fish to the students and the other four times were to take on the character of the fish during the course of the story to engage the students. At the beginning of the lesson when Ms Fong first introduced the big book to students, she took out the hand puppet which was in the shape of a fish to pique students' interest in the big book. The puppet was familiar to students, indicating that it was not the first time Ms Fong used it in her lessons. The decision to bring it to class showed a deliberate attempt on Ms Fong's part to bridge between students' home setting and the school environment, thus motivating a weak classification (Bernstein, 1990) between the two spheres of contexts. Her efforts seemed to have paid off as students excitedly pointed to the hand puppet and a few even broke out in applause upon first seeing it. It

can be argued that by including the voice of the hand puppet, Ms Fong entertained the inclusion of alternate voices during her lesson, thereby expanding dialogic space. By taking on the voice of the hand puppet and literally by speaking in a higher tone, she momentarily silenced her teacher voice and positioned herself as an equal to her students, allowing for a different kind of discussion with her students while having the option of resuming her teacher voice should it become necessary. For instance, Ms Fong, whilst taking on the voice of the fish hand puppet, offered a student a kiss while making kissing noises and moving the mouth of the fish up and down. This was not something that Ms Fong would do in her teacher voice but when adopting the voice of a character in the book in the form of a hand puppet, it functioned to create a relaxed environment resulting in a more casual kind of talk.

Only Ms Fong and Ms Naima covered certain pages of the big book with a white paper. Thus, the gesture 'peeling off paper' applied to these two teachers only. The absence of these pages from students' view allowed these teachers to ask questions that require students to predict the following events in the story using contextual cues from the text and/or the images. Prediction is an important part of active reading, where students are required to connect their prior knowledge with what they currently read and make predictions about the unfolding events in the story (e.g., Duke & Pearson, 2002). A successful instance of the use of the prediction question can be found during Ms Naima's lesson. When Ms Naima asked the question, "What is he going to do now?", the Big Book was opened to the page where the main character is walking towards an unknown destination. Students then had to make guesses as to where he could possibly be going using the textual and visual cues found in the preceding page, where the closet door was pictured ajar. The expected

answer would be that the main character was about to close the closet door to ensure that the monster in the closet would not come out while he was sleeping. Two other answers were given before one student managed to get the right answer and Ms Naima then proceeded to reveal the answer found in the opposing page by peeling off the paper.

In the absence of the predicting question strategy, it can be concluded that the students in Ms Fong's and Ms Naima's classrooms had a richer and more engaging experience than Ms Gan's students. This is most apparent at one point in her lesson when the big book was opened at two pages, each with its own words and accompanying illustration. On the left-hand side of the book was a close-up picture of the main character with the word 'Breeeeee!' across the top of the page and the words at the bottom of the page read 'I heard another noise. It hit me like a punch.' while the right-hand side of the book showed a scene of the classroom with the teacher sitting in front of the students, accompanied by the words 'Mrs Jones said, "There's the bell now. Please go and eat your lunch"'. Ms Gan asked the question "What sound?" while she was pointing to the picture of the girl on the left-hand side of the book but the opposing page shows the answer to this question quite obviously – the bell. As such, the predicting question posed by Ms Gan lost its value on account of the visibility of the opposing page to the students. Instead of using the textual or visual cues to make considered guesses, students were able to obtain the answer by reading the text from the opposing page. Comparing this example to the example found in the previous paragraph, it can be concluded that Ms Gan's students missed out on an opportunity to use their inferencing skills in predicting the source of the sound, unlike Ms Naima's students, who had to rely on their inferencing skills to guess the

correct answer. The difference in cognitive student engagement in the two examples is apparent.

Apart from these, the other gestures that were not used by all three teachers do not seem to be meaning-making resources. For example, the gesture 'adjusting of spectacles' was only applicable to Ms Naima because she was the only one who wore spectacles; and she was also the only one who used a portable microphone so the gesture of holding the microphone in one hand only applied to her. Ms Fong had a piece of tissue clasped in the hand she held her pointer and periodically, she would rub her nose with it. Thus, the gesture 'rub nose' applied only to her.

From the analysis of gestures using the appraisal framework and the general analysis of gestures, it can be concluded that the inclusion of gestures is critical in ascertaining the expansion or contraction of dialogic space using Hood's framework and the bottom-up analysis of the gestures used by the three teachers. The gestural framework by Hood (2011) gives further support to the Appraisal analysis of the semiotic resource of words covered in Chapter 6 while the bottom-up analysis proved useful in illuminating the ways the teachers used other gestures such as pointing to the words or pictures in the big book in co-ordination with their speech to expand and contract dialogic space.

While the dialogic analysis points to how the teachers negotiate whole class discussions, there is a lack of information in how teachers and students respond to each other. This is important in making decisions about whether teachers allow students' voices to come through by, for example, taking on and building upon their ideas. It is possible to track this by analysing the data using the speech function framework by Eggins and Slade (2006) discussed in Chapter 4. This analysis provides more insight

into the teacher-student interactions, more so than that already gleaned from the dialogic analysis. This further analysis is seen as an extension of the speech and gesture analysis as Eggins and Slade clearly considered gestures as meaning-making resources, acknowledging “non-verbal realizations of moves” (Eggins and Slade, 2006, p. 214) and assigning each of these a move number.

7.5 Multimodal speech function analysis

Eggins and Slade (2006) suggest two ways in interpreting the speech function analysis – synoptically and dynamically. The former aggregates the number of speech function choices speakers adopt in their interactions while the latter tracks through the choices as the discussion ensues. A synoptic analysis would reveal the dominant party in the discussion, the party who makes the most or least rejoinders and resolves the most issues in the discussion. This analysis seems redundant in this study of classroom interactions as the clause analysis earlier (Chapter 6) reveals that the teacher is the dominant party during the whole class discussions. A dynamic analysis, however, would reveal whether the teachers track and develop the contributions made by students, thus promoting quality student engagement; or fall back to the default pattern of classroom discourse, the IRF (Cazden, 2001). This analysis would provide another dimension to the findings thus far, illuminating the differences in classroom interactions between the three teachers, if any.

The unit of analysis in Eggins and Slade’s speech function framework is the turn/moves. A turn reflects the change in speakers in the teacher-student interaction – each turn is assigned a number. The moves within the turn are assigned an alphabet. As mentioned earlier, gestures made by teachers are assigned a move, implying that the gesture

happens on its own without the accompanying speech and makes meaning in its own right. In the present data, however, there are moments where the gestures coincide with speech which may be useful in assessing how teachers extend students' thinking. In these cases, the gestures are presented in a column next to the speech column and the speech which coincide with the gestures are underlined.

7.5.1 Opening speech functions used by teachers and students

In a typical whole class discussion, teachers are expected to make most, if not all, of the opening moves as these tend to be assertive in nature, exerting control in the way the interaction proceeds (Cazden, 2001). In the present data, opening moves by students are those where students initiated a new topic. These may or may not be followed up by their teachers. For the purposes of this section though, only opening moves made by students that were followed-up by the teachers would be discussed. Such instances would suggest that students were given the liberty to initiate new topics of discussion and that these were encouraged by the teachers, leading to more open and democratic kinds of discussion.

While the teachers do make most of the initiating moves, students in Ms Fong's class seem to be the most active in presenting new, but related sequences of talk as can be seen in Extract 7.8. At Turn 222/a, a student made an unsolicited comment on the size of a character's hand. This was taken up by Ms Fong in Turn 223/a, where she built upon the student's comment by choosing the option [support; develop; elaborate] showing her openness in allowing students to take the lead in the course of the whole class discussion.

Extract 7.8: Opening move by one of Ms Fong's students²³

Turns/ Moves	Speaker	Spoken discourse	Gesture
222/a	Student:	Her hand is very big!	
223/a	Ms Fong:	Not only is her hand very big, I think <u>something else is very big.</u>	Pointing to picture - mouth of the fisherman's wife.
224/a	Many students:	The mouth.	
225/a	Ms Fong:	(laughs) Her mouth is also very big.	

The disorderly situation in Ms Gan's classroom makes it challenging to note whether students initiated new lines of discussion but there were five discernible occasions where students did this. Extract 7.9 shows one such instance. The unsolicited move made by a student at Turn 135/a was picked up by Ms Gan in the following turn. Similar to Ms Fong, Ms Gan also showed a willingness to allow students to initiate a new topic by responding to them. In this case, however, it would seem that the student's initiating move was unwarranted as it did not address Ms Gan's question at Turn 131/b. Ms Gan reacted by selecting the option react; rejoinder; confront; challenge; rebound, questioning the relevance of his answer and sending the move back to him at Turn 136/a. The student's answer, "Untied!" still did not show how his initial opening move addressed Ms Gan's question at Turn 131/b but she opted the [react: respond: support: develop: elaborate] by restating the student's answer, effectively ending

²³ The bold line in the tables show the demarcation of exchanges. An exchange is defined as a sequence of moves concerned with negotiating a proposition stated or implied in an opening move.

the exchange without further exploration of the student's thinking that had led him to point out the undone shoe laces. Although it is generally good for teachers to make moves that develop students' answers, they should ensure that intersubjectivity is achieved at the end of the exchange. This current exchange was not resolved satisfactorily and could potentially create confusion for the other students in the class as Ms Gan did not clarify or explore the possibility as to how the untied shoe laces provided clues in showing that the students were "not standing but sitting".

Extract 7.9: Opening move by one of Ms Gan's students

Turns/ Moves	Speaker	Spoken discourse	Gesture
131/b	Ms Gan	OK, any clues that tell you that <u>they are not standing but sitting</u> ?	Pointing to the picture - students' legs
132/a	Student	Because they are folding their legs! (overlapping)	
133/a	Student	Bend their legs.	
134/a	Ms Gan	<u>Yes</u> , they are crossing their legs.	Three brief nods
135/a	Student	See the shoe lace.	
136/a	Ms Gan	What has it got to do with the shoe lace?	Cross arms; look at the picture
137/a	Student	Untied!	
138/a	Ms Gan	Somebody's shoe lace is are loosened right?	Facing the class

There were no opening moves made by students in Ms Naima's class due to the highly structured organisation of the whole classroom discussion during her lesson. Students only responded to Ms Naima's questions and even then, only when they were nominated. As such, Ms Naima selected the initiator option the most. There were times when her students selected the initiator option but these were mostly ignored by Ms

Naima. She was, therefore, the main person controlling the topic of discussion.

7.5.2 Sustaining discussions: Continuing speech functions used by the three teachers and their students

The sustaining speech function “remain with the Mood structure set up in the initiation” (Eggins and Slade, 2006, p. 195). This opens up to two choices – continue or react. ‘Continue’ is selected when the speaker of the initiation move engages in further moves while in ‘react’, another speaker takes the turn. ‘Continue’ further selects ‘monitor’, ‘prolong’ and ‘append’.

All three teachers selected the [continue: monitor] option, which gives attention to the “state of the interaction” (Eggins and Slade, 2006, p. 195) by checking if students are following the discussion or nominating a student to be the next speaker. Ms Gan selected this option minimally as she called upon students to answer her questions only for a total of seven times throughout her lesson. On four of these occasions, students are nominated directly; for example: “SS, what do you think the students are doing here now?”. The reason for the direct nominations of students seemed to be to redirect their attention to the discussion on hand. SS required some help getting on track with the discussion and was therefore called upon. These instances would be similar to what Mehan (1979) would call ‘individual nomination’, where teacher calls on students by verbal or non-verbal means. On three other occasions, Ms Gan nominated students indirectly as shown in Turn 169/a: “OK, let’s listen to XR”, Turn 253/a: “OK, let’s listen to DV.” and Turn 286/b: “JK has some information about what a brontosaurus is”. In these cases, the nominated students would have already given their answers in chorus with their classmates but was selected and given a platform to repeat their answers by Ms Gan. At

other times, Ms Gan would just choose one answer out of the many being called out by her students to repeat or develop. The criteria for choosing the one answer out of the many others being called out is unclear.

Ms Naima and Ms Fong selected the [continue: monitor] option 95 and 49 times respectively to manage turn-taking in the selection of student speakers during their whole class discussions. These numbers are considerably higher in comparison to the number of times Ms Gan chose this option. In Ms Naima's classroom, student nomination was consistently applied and students only spoke when they were nominated as shown in Extract 7.10. She adopted the 'invitation to bid' technique (Mehan, 1979), waiting for students to raise their hands before selecting one student to answer her question. On one occasion, Ms Naima nominated a student who did not raise her hand while some other students had their hands raised. Similar to Ms Gan, she did this to refocus students' attention to the discussion. As a result of Ms Naima's consistent selecting of students to answer her questions, the whole class discussion during her lesson proceeded smoothly and in an organised manner.

Ms Fong also used the [continue: monitor] option to select student speakers but she used it less consistently. In the beginning of the lesson, she adopted the 'invitation to bid' technique, expecting students to raise their hands before she selected the next student speaker and consistently ignored those who called out their answers without being nominated. This changed progressively throughout the lesson when Ms Fong exerted less control in the turn-taking allocation and allowed the discussion to develop organically with students self-nominating at times.

Extract 7.10: Typical interaction in Ms Naima’s class in selecting the option [continue: nominate]

Turns/ Moves	Speaker	Spoken discourse	Gesture
61/b	Ms Naima:	So what is he going to do here?	Point to image
62/a			Students raised hands
63/a		CA.	
64/a	CA:	Shoot the monster.	

Extract 7.11: Ms Gan’s use of a variation of ‘individual nomination’ in selecting [continue: monitor]

Turns/Moves	Speaker	Spoken discourse	Gesture
324/a	Ms Gan:	Oh, the school bell.	
324/b		How many thinks no?	
325/a	Students:		A few students raised their hands
325/b	Student:	No, it’s the recess bell.	
326/a	Ms Gan:	How many thinks it’s the school bell?	
327/a	Students:		A few others raised their hands
328/a	Ms Gan:	OK, let’s find out.	

All three teachers also applied a variation of individual nomination where they asked students to answer them as a united group by raising their hands. The questions posed were of the ‘how many of you think’ or ‘how many of you agree’ types where the expected response from students would be for them to raise their hands. An example of this can be seen in Ms Gan’s lesson in Extract 7.11. At Turn 324/b, Ms Gan asked the

question, “How many thinks no?” and a few students duly raised their hands. This collective response to her yes/no questions is an efficient way to allow students to contribute to the on-going discussion while allowing Ms Gan to track her students’ understanding of the story.

While the [continue: monitor] option focuses on the nomination of student speakers, it would be interesting to note the times when the teachers do not exercise this option. As mentioned earlier, Ms Naima consistently called on individual students to answer right after asking her questions. In the rare event that someone commented something, she would brush it off with a curt reply and move on to discourage the errant behaviour. This is contrasted with Ms Fong and Ms Gan’s lessons, where students were given the floor to self-nominate as in Mehan’s ‘invitation to reply’ (1979). Mehan describes this as the event when students self-nominate without the teacher’s explicit direction. Ms Gan, especially, allowed this to happen almost throughout the lesson while Ms Fong allowed this only further into the discussion. The resultant student behaviours, however, were markedly different. While Ms Gan’s students competed with each other verbally in order to gain her attention, Ms Fong’s students self-nominated in an organised fashion without interrupting or answering over each other. The weak frames adopted by Ms Gan (see Chapter 5) proved to be counter-productive to this type of nomination, leading to a disorganised and negative environment, where students competed with each other to have their voices heard. Ms Gan would then either nominate students directly or indirectly; or repeat or develop students’ answer without explicitly acknowledging the supplier of the said answer, as explained earlier. In contrast, Ms Fong gradually allowed her students to answer her questions spontaneously. As such, Ms Fong’s whole class discussion often played out as an out-of-class

conversation would, with a fair amount of freedom given to students to ask or answer questions and contribute their ideas. This could be due to Ms Fong's strong relationship with her students – she could be both firm but warm at the same time. This balancing act seems to be the key to Ms Fong's orderly whole class discussion sessions where control is exerted in the background or in Bernstein's terms – weak framing within an environment of a visible pedagogy (2000).

Students in all three classrooms did not opt for the [continue: monitor] option. This is expected as students have little authority in the turn taking allocation.

The [continue: prolong] option is available for the current speaker to give more information to extend his immediately preceding move (Egins and Slade, 2006). Egins and Slade adapted Halliday's framework for explaining logico-semantic relations between clauses in clause complexes (1994) to develop this option. The prolonging move sets up a relationship of expansion with its prior move and it can serve to either elaborate, extend or enhance.

When a current speaker elaborates his prolonging move, he "clarifies, restates or exemplifies an immediately prior move" (Egins and Slade, 2006, p. 197). This could be by way of the use of conjunctions such as 'like', 'for instance', 'I mean' in the beginning of the prolonging move, although in the setting of natural conversations, conjunctions are mostly left out. In these instances, the relationship between the prior and the prolonging move would be examined to determine if the conjunction is being implied. In extending, the current speaker adds or gives contrasting information to what was previously said in the prior move. Again, conjunctions play an important role here, linking the two moves with 'and',

'but', 'instead', 'or' or 'except'. When the current speaker enhances in his prolonging move, he provides circumstantial details such as temporal, spatial, causal or conditional information.

The teachers selected the various [continue: prolong] options to expand their turns. In elaboration, teachers restated their ideas or questions, clarified the definition of words and gave examples.

Ms Fong selected the option [continue: prolong: elaborate] to restate her questions as shown in Extract 7.12. Her first question at Turn 106/e was asked after she read this passage from the book: "A fisherman lives in a hut by the sea. But what but that wasn't where his wife wanted to be." She asked the question, "Where did his wife want to be?" followed rapidly by, "What does it mean?" (Turns 106/f and 106/g), in which she selected the option [continue: prolong: elaborate], thereby restating her question. These were open questions and since it was only the first page of the book, students did not have enough information to make a considered reply. Further, the question itself "Where did his wife want to be?" at Turn 106/e was not pertinent to the plot – it did not matter where the fisherman's wife wanted to be; it was more important that she was dissatisfied with her living conditions as the pages which follow would show. Ms Gan then asked the question, "Was she happy staying by the sea?" (Turn 106/g), selecting the option [continue: prolong: elaborate] again to restate her question. This question was more reasonable as students could gather that the fisherman's wife was not happy through her facial expression. When students did not respond to her first two questions, Ms Fong restated her question to highlight the more important aspect of the plot and at the same time, made it more manageable for students to answer, especially since the last question at Turn 106/g is a question that requires only a 'yes' or 'no' answer.

Extract 7.12: Ms Fong’s selection of [sustain: continue: prolong: elaborate] to restate questions

Turns/ Moves	Speaker	Spoken discourse	Gesture
106/e	Ms Fong:	Where did his wife want to be?	
106/f		<u>What does it mean?</u>	Pointing to the words “not where she wants to be” from left to right
106/g		Was she happy staying by the sea?	

Extract 7.13: Ms Fong’s selection of [sustain: continue: prolong: elaborate] to give an example

Turns/ Moves	Speaker	Spoken discourse	Gesture
255/a	Ms Fong:	Delay means um <u>don’t</u> take your time okay.	Sweep hand from centre to right
255/b		To delay means to take your <u>own</u> <u>sweet time.</u>	Circular motion in rhythmic beat
255/c		Like sometimes when I say don’t dillydally.	Hands by her side on the edge of the chair

Similarly, Ms Gan and Ms Naima selected the [sustain: continue: prolong: elaborate] option to restate their ideas or questions. An instance of this in Ms Gan’s lesson is at Turn/Move 150/a when she asked the question, “Echo is it a repeated sound?” which she followed immediately with, “Is it like a repeating sound?” changing ‘repeated’ to ‘repeating’. In the same way, Ms Naima chose this option to restate her ideas. At Turn/Move 168/d, she said, “Look at his face”. This is followed by, “Look at him looking at the boy”. The elaborating move restates Ms Naima’s original statement by being more specific – she wanted to direct students’ attention to the facial expression of the monster when it was looking at the

boy. She also chose the option to provide alternative words that are close in meaning. For instance, at Turn/Move 178/c, she said, “He’s terrified” and then immediately restated this to “He’s so afraid” at Turn/Move 178/d. This could be for the benefit of students who might not have understood the word ‘terrified’, providing them with the synonym ‘afraid’ which could be more accessible to students.

Ms Fong allowed a certain degree of freedom to her students to contribute their ideas. Although extended answers from students where they held the floor for more than one move were rare, there were a few students who selected the [sustain: continue: prolong: elaboration] move. One of these instances is shown in Extract 7.14. YL answered Ms Fong’s question in Turn/Move 188/a. She could have stopped here as she had answered Ms Fong’s question fully but proceeded to elaborate on her answer in Turn/Move 188/b when she described what happened to the fish. This showed some form of agency on the student’s part and vouched for Ms Fong’s everyday conversational style when interacting with her students.

Extract 7.14: An instance where Ms Fong’s student selected [sustain: continue: prolong: elaborate]

Turns/ Moves	Speaker	Spoken discourse	Gesture
187/c	Ms Fong:	When he cast the net,	Open palm, supine position
187/d		what did he do?	
188/a	YL:	He caught the fish	
188/b		And the fish jumped up.	

The students in Ms Gan’s classroom also selected this option minimally as their answers were all elliptical when they answered as a

class. When they answered individually, 33% were elliptical answers and 52% were full clause answers (see Table 6.2 in Section 6.2.2). This is in part attributed to the ‘closed’ type questions asked by Ms Gan which require one-word or one-phrase answers (Cazden, 2001).

All three teachers selected the [prolong: extend] to add more details to their prior move. This happened fairly regularly for all three teachers in much the same way. Extract 7.15 shows one such typical example from Ms Gan’s lesson. Ms Gan used the contrasting conjunction ‘but’ to draw attention to the difference between the children in the story who were sitting on a mat and the students in her class who were sitting on the floor.

All three teachers similarly selected the [prolong: enhance] option to provide reasons for some proposition laid out in the immediately preceding move. Ms Naima, for example, selected this option in Turn/Move 38/b: ‘because there is a monster right’ in the form of a causal detail to Turn/Move 38/a: ‘he is scared’ as shown in Extract 7.16.

Extract 7.15: Ms Gan’s use of [sustain: continue: prolong: extend]

Turns/ Moves	Speaker	Spoken discourse	Gesture
140/b	Ms Gan:	<i>Miss Jones said, “<u>Listen</u> children, come and sit here on the mat.”</i>	Wag index finger
140/c		You are right, on the mat.	Pointing to the ground
140/d		But for you, on the floor ah.	Point to the floor from left to right

Extract 7.16: Ms Naima's use of [sustain: continue: prolong: extend]

Turns/ Moves	Speaker	Spoken discourse	Gesture
34/b	Ms Naima:	Why do you think he is scared?	Hands across lap
35/a	Student:	(unclear)	
36/a	Ms Naima:	Why do you think he is scared, JM?	Hands across lap
37/a	JM:	He is scared of the monster.	
38/a	Ms Naima:	<u>He</u> is scared	Point to the image of the boy in the big book
38/b		because there is a monster right.	Point with whole hand to the left

The last category for continuing moves is 'appending'. This is when a speaker loses his/her turn to another party without completing it but continues after that as though there had been no interruption at all. The appending move logically expands the move just before the interruption occurs and this happens in the same way as that of the [continue: prolonging] moves to elaborate, extend or enhance. The three teachers selected this option when dealing with unsolicited questions, answers or comments from students. One example of such an instance during Ms Naima's lesson is shown in Extract 7.17. At the start of the extract, she asked the question "What should you do with your toys after you have done playing them?" and paused slightly. In this time, a student answered without being nominated by Ms Naima. At Turn 44/a, Ms Naima then selected the option [continue: append] by ignoring this student's answer.

This interpretation is supported by the fact that Ms Naima was looking in the opposite direction and then proceeded to nominate IW. The use of appending moves happened more frequently in Ms Naima's lesson than in Ms Gan's and Ms Fong's lessons. This could be due to the tightly structured interaction patterns found in Ms Naima's lesson where she consistently ignored unsolicited contributions of students. Ms Gan and Ms Fong, on the other hand, were more predisposed to taking up students' unsolicited comments or interjections mid-way through their turn.

Extract 7.17: Ms Naima selecting the [sustain: continue: append: elaborate]

Turns/ Moves	Speaker	Spoken discourse	Gesture
42/b	Ms Naima:	What should you do with your toys	Looking at students, wide sweep from left to right
42/c		after you have done playing with them?	Looking at students, wide sweep from right to left
43/a	Student:	Keep.	Student who answered is at centre but Ms Naima's gaze remains at left
44/a	Ms Naima:	IW.	Looks at IW to her left

7.5.3 Reacting moves made by teachers and students

The continuing moves above occurred when the speaker of the initiating move stays within its Mood structure while retaining the moves that follow. In situations where the speaker of the initiating move yields his/her turn to another party, the reacting move takes place. This can be realised in two options: respond or rejoinder. Selecting the 'respond' option would indicate that the speaker seeks to complete the current exchange while selecting the 'rejoinder' prolongs the exchange by beginning a sequence of moves that "interrupt, postpone, abort or

suspend the initial speech function sequence” (Eggins and Slade, 2006, p. 207). In both ‘respond’ and ‘rejoinder’ options, the option to support or confront the proposal or proposition made by the initial speaker is available.

In the typical three-part IRF exchange, teachers usually begin the initiating turn before allowing students to take the following turn where students may choose the option ‘respond’ or ‘rejoinder’ and at the same time, support or confront the proposition or proposal made by the teachers. The roles reverse when teachers make the third move and similarly here, she has the option to either choose ‘respond’ or ‘rejoinder’ in supporting or confronting the students’ reply. When applied to the current study, it would be interesting to explore the social dynamics in the ways in which teachers or students support or confront each other’s contributions.

The focus of this analysis will be on the IRF exchange as this proves to be the most pedagogically significant interaction pattern found in the data. As such, the ‘Initiate’ in IRF would focus on the form of demand for information or opinion. The three teachers were almost always the initiators in asking for information or opinion from students.

The initiation move is followed by the react ‘move’. This opens up to the options of either ‘support’ or ‘confront’. In ‘support’, the options ‘develop’, ‘engage’, ‘register’ and ‘reply’ are available. ‘Develop’ builds on the previous speaker’s proposition by elaborating, extending and enhancing (Eggins & Slade, 2006). This move shows alignment with and hence acceptance of the previous speaker’s proposition. ‘Engaging’ moves are in response to attention-getting moves and so are realised as minor clauses or repeating the content of the previous speaker. ‘Register’

moves provide “encouragement for the other speaker to take another turn” (Eggins and Slade, 2006, p. 204). ‘Reply’ moves can be both supportive or confrontational, negotiating the proposition forwarded by the previous speaker.

Most students selected [react: respond: support], acknowledging the teachers as the navigators of the whole-class discussion and the authority figures in the classroom. As mentioned earlier, this selection opens up further options of develop, engage, register and reply for the students. Most of the time, students would select the [respond: support: reply: answer] option where they negotiate the proposition made by their teachers, providing them with the required answers. At times, when teachers selected the [continue: monitoring] option in nominating student speakers, the nominated students selected the option [respond: confront: reply: withhold] by remaining silent, most probably due to their inability to answer the questions posed. While this is viewed as confrontational in everyday social interactions (Eggins and Slade, 2006) where the topic of discussion would rarely require much thought, it is quite normal in classroom interactions, where students sometimes require more time to respond to cognitively challenging questions posed by teachers (Vickery, 2014).

From the data in all three classrooms, students were observed to select the option [respond: support: register] through non-verbal means. Instead of giving feedback verbally through minor clauses, students nodded their heads to show their agreement with their teachers.

At other times, instead of answering their teachers, students made the option of rejoinder, where the move functions to extend the exchange instead of bringing it to a close. This happened during the whole class

discussions of all three lessons. For example, in Extract 7.18, Ms Fong acted out the word ‘timid’ but this did not have the intended outcome as the student at Turn 283/a selected [rejoinder: support: track: clarify] to ask for its definition. When the gesture at Turn 282/b did not work, Ms Fong opted to use the semiotic resource of speech and selecting the option [respond; support; reply; answer] to explain the word ‘timid’. The expected response for a demand for information, as that in Ms Fong’s initiating move, would be the supply of that information (Halliday, 1994). In this case, for Ms Fong’s student to demand information instead, albeit in relation to Ms Fong’s earlier question, showed a degree of student agency at work in the teacher-student interaction.

Teachers’ responses to students’ answers could be viewed as the ‘feedback’ move in the IRF, where teachers evaluate students’ answers. These show up in the speech function analysis either as [respond: support] or [respond: confront].

Extract 7.18: Ms Fong’s student opting to introduce a new proposition opting for [rejoinder: support: track: clarify]

Turns/Moves	Speaker	Spoken discourse	Gesture
282/a	Ms Fong:	He is angry	
282/b		but he also <u>looks a bit timid</u> , doesn’t he?	crouch shoulders, with two hands in front and head placed close to hands
283/a	Student:	What is timid?	
283/b	Ms Fong:	Timid means a bit shy and scared.	Hands clasped in front on her lap

All three teachers almost always took the turn right after a student responded to their questions. In [respond: support], the three teachers

often repeated answers from students as a way of acknowledging their contribution, selecting the option [respond: support: acknowledge]. This is a departure from the typical IRF three-part exchange as they did not evaluate the student's response in the third move. Instead, they adopted a neutral position by simply repeating the answers provided by students in an upward rising tone. For example, in Extract 7.19, Ms Fong selected [respond: support: acknowledge] when she repeated YL's answer in Turns/Moves 189/a and 189/b. At Turn/Move 189/c, she selected the option [continue: prolong: extend] when she evaluated YL's answer to close the modified IRF pattern – "Very good, YL."

Extract 7.19: Ms Fong's use of [respond: support: acknowledge]

Turns/ Moves	Speaker	Spoken discourse	Gesture
187/c	Ms Fong:	When he cast the net,	Open palm, supine position
187/d		what did he do?	
188/a	Student:	He caught the fish	
188/b		And the fish jumped up.	
189/a	Ms Fong:	He caught the fish	Mirrored student's tone while nodding her head rhythmically.
189/b		and the fish jumped up?	
189/c		Very good, YL.	

The evaluation move did not always occur immediately after teachers select the option [respond: support: acknowledge] as shown in Extract 7.20. At Turn/Move 69/f, Ms Naima had asked the question, "What is he about to do?" in relation to the main character in the story. This was a

predicting question as it required students to guess what would happen next using the past events in the story to provide contextual cues. This skill is highly sophisticated because it tests students' logical reasoning. Ms Naima was not consistent in asking students to explain their answers when they made predictions; in this particular exchange, she did not do so. She selected the option [continue: monitor] to select two other students before selecting KAW. When KAW gave his answer to her follow-up question at Turn/Move 78/a, she withheld her evaluation of his answer until after she had revealed the image in the big book. In a way, Ms Naima allowed the image to be the feedback to her students' answers. By doing so, there was a missed opportunity of exploring the thought processes which led to the answers provided by KAW and his other two classmates. This withholding of the evaluation move by Ms Naima also happened in the other two classrooms in much the same way.

Extract 7.20: Ms Naima withholding the evaluation of a student's answer to her predicting question

Turns/ Moves	Speaker	Spoken discourse	Gesture
75/b	Ms Naima:	KAW.	
76/a	KAW:	Close the door.	
77/a	Ms Naima:	Which door?	Open palms, both hands
78/a	KAW:	The closet door.	
79/a	Ms Naima:	The closet door?	Hands on lap
79/b		The closet door?	Hands on lap
79/c		Let's find out.	Hands move towards page
79/d		Let me uncover this.	Peeling off paper
79/e		Ah so KAW was correct right.	Pointing to picture of closet door

Besides acknowledging students' answers, teachers also opted for the [react: respond: support: reply: answer] by answering their questions. In the earlier extract, Extract 7.18, Ms Fong selected this option in Turn/Move 283b when she answered her student's question by giving a definition of 'timid'.

Another way that teachers supported students during the whole class discussions was by making developing moves, which elaborate, extend or enhance the previous speaker's move. These moves are supportive in that the speaker shows solidarity with the previous speaker in negotiating the prior proposal whilst moving the exchange to completion. This is evident in all three lessons. One instance of this is shown in Extract 7.21. Prior to this extract, at Turn/Move 108/c, Ms Fong selected the option [initiate: question: open: opinion] by asking the question, "Where do you think she wants to stay?". After nominating two other students, she selected NK at Turn/Move 114/c. NK responded with an ellipted clause, selecting the congruent respond: support: reply: answer: "In the village". Ms Fong restated her answer, selecting the option respond: support: develop: elaborate to expand it into a full sentence without explicitly evaluating her answer although the act of restating NK's answer could be construed as acceptance. NK responded at Turn/Move 117/a by developing her earlier answer, selecting the option [respond: support: develop: enhance]. This turn was unsolicited and again pointed to the student agency present in Ms Fong's class. NK's answer was further developed by Ms Fong when she selected the option [respond: support: develop: enhance] to further explain NK's answer at Turn/Move 118/a, emphasising the fisherman's wife desire to live collectively in a village instead of in isolation by the sea. This extract shows how Ms Fong was willing to entertain NK's answer, supporting it by adding further details to

achieve intersubjectivity with the other students. This co-operative, supporting interaction style proved beneficial to students as they often supplied extended answers that enriched the whole class discussion and allowed for issues to be discussed in-depth.

Extract 7.21: Ms Fong’s use of the respond: support: develop: enhance option

Turns/ Moves	Speaker	Spoken discourse	Gesture
114/c	Ms Fong:	NK.	Hands on lap
115/a	NK:	In the village.	
116/a	Ms Fong:	She wants to stay in the village.	Hands on lap
117/a	NK:	Because she doesn't want to be alone.	
118/a	Ms Fong:	Oh what NK means is she doesn't want to stay alone by the sea.	Hands on lap
118/b		She wants to stay in the village with the other people.	
118/c		Good. (class applauds)	Ms Fong claps her hands followed by the rest of the class

Similarly, Ms Naima selected the option [respond: support: develop] to show support of her students’ answers. In Extract 7.22, Ms Naima selected the option [continue: monitor] to nominate GL at Turn/Move 117/a to answer her question “What is he doing?”. GL answered “Hide inside the blanket”, echoing what others had answered in chorus before Ms Naima nominated him. Ms Naima then selected [respond: support: develop: elaborate] to restate GL’s answer – instead of ‘hide’, she restated this as ‘completely covered’. The difference is subtle but proved to be important in consideration of the whole exchange. Ms Naima’s question at Turn/Move 115/a was based on the text in the book: ‘When I was safe in bed, I

peeped sometimes.’ This text is accompanied by the image of the main character hidden under his blanket. As such, when Ms Naima selected [respond: support: develop: elaborate] at Turn 119/a, she effectively changed the verb ‘hide’ to the state of the main character being ‘completely covered by the blanket’. This shifted the focus to the main character’s hidden state and emphasised his false sense of security that the blanket would protect him from the monster.

Extract 7.22: Ms Naima’s selection of the option [respond: support: develop]

Turns/ Moves	Speaker	Spoken discourse	Gesture
115/a	Ms Naima:	What is he doing?	Hands on lap
116/a	Many students:	Hide inside the blanket.	
117/a	Ms Naima:	GL.	Hands on lap
118/a	GL:	Hide inside the blanket.	
119/a	Ms Naima:	Completely covered with the blanket right.	Hands clasped together in front, pulling in an imaginary blanket over her shoulders.

Whilst the teachers were usually supportive of their students’ answers, there were times when they would select the [option respond: confront]. Ms Fong was observed to select this option when students provided incorrect or incomplete responses. Two such instances can be found at Turns/Moves 24/b and 51/a of the same exchange. In Extract 7.23, Ms Fong selected the [open: initiate: demand] when she fielded a question to the class at Turn/Move 9/b: “Do you know what today’s story is all about?” to which Ricky answered “Fishmonger” at Turn/Move 23/a. Ms Fong then selected the option [rejoinder: confront: challenge: rebound] at

Turn/Move 24/b: “Is it about fishmonger?”, doubting the accuracy of his answer. This was followed by a series of questions selecting the option [rejoinder: support: track] with the purpose of scaffolding students’ thought processes in arriving at a more accurate answer. When YC gave the same answer as Ricky at Turn/Move 50/a, Ms Fong selected the option [respond: confront: reply: disagree] with an abrupt ‘No’ at Turn/Move 51/a before moving on to nominating another student. The immediate rejection of a students’ answer as feedback may be seen as overly harsh, especially in the current climate where teacher-student relationships are expected to be warm and supportive. When considering the whole exchange, though, the selection of [respond: confront: reply: disagree] could be viewed as a way of achieving intersubjectivity - the earlier inconclusive move at Turn/Move 24/b may have been too subtle for YC, making the direct move at Turn/Move 51/a necessary.

Extract 7.23: Ms Fong’s use of the [respond: confront: reply: disagree] option

Turns/ Moves	Speaker	Spoken discourse	Gesture
45/b	Ms Fong:	So what are they?	Tap on image
45/c		Now you should know.	Hands on lap
45/d		What are they?	
46/a	Student:	I know, I know.	
47/a	Ms Fong:	DN.	Hands on lap
48/a	Student:	I know already.	
49/a	Ms Fong:	YC.	Hands on lap
50/a	YC:	Fishmonger.	
51/a	Ms Fong:	No.	Hands on lap
51/b		FW.	

The second occasion when Ms Fong opted the [respond: confronting: reply: disagree] was when she responded 'no' to a student, RB, in response to his answer which lacked specificity and was ungrammatical: "He is going to fishing". Ms Fong's focus on grammar and use of accurate words was apparent throughout her lesson, reflecting the importance she placed on these areas of language development.

The infrequent number of times that Ms Fong opted for the option [respond: confronting] could be seen as evidence of her nurturing and encouraging nature in interacting with her students. Instead of rejecting students' incorrect answers immediately, Ms Fong asked further questions for the purpose of scaffolding students' thinking (Wood, Bruner, & Ross, 1976). Evidence of this can be found in the rejoinder moves she made, specifically when she opted for the option [rejoinder: support: track] (see Turn/Move 200a in Extract 7.24 below).

Ms Naima selected the option [respond: confront: reply] minimally. When a student furnished an incorrect answer, she would ask another person the same question without evaluating the incorrect answer. This is evident at one point in her lesson when HW answered Ms Naima's question incorrectly. Ms Naima then asked the same question to the class instead of opting for the option [respond: confront: reply: disagree]. In this case, she selected the option [respond: confront: disengage] by ignoring HW's incorrect answer. Ms Gan similarly preferred the option [respond: confront: disengage] to the option [respond: confront: reply]. This could affect the relationship between teacher and student should teachers repeatedly ignore students' contributions that are considered 'incorrect'.

Rejoinder moves show how teachers support and scaffold students' answers in navigating the teacher-student interactions to achieve their

lesson objectives. They often made these supporting moves by continuing from the students' 'respond' turn in IRF to 'check', 'confirm', 'clarify' or 'probe'. In [rejoinder: support: check], the speaker checks on "content which has been missed or may have been misheard" (Eggins and Slade, 2006, p. 209). Ms Fong made such moves on several occasions; one of which is presented in Extract 7.24 at Turn/Move 200/a. Ms Fong asked a student to repeat his answer as she had missed it.

Extract 7.24: Ms Fong's use of [rejoinder: support: track: check]

Turns/ Moves	Speaker	Spoken discourse	Gesture
197/a	Ms Fong:	How did he know it was magic?	Open palm, supine position
198/a	Student:	Shiny shiny fish.	
199/a	Student:	He could talk.	
200/a	Ms Fong:	Because what?	Hands on lap
201/a	Student:	The fish could talk.	
202/a	Ms Fong:	Because the fish could talk.	

In [rejoinder: support: confirm], the speaker "seeks verification of what the speaker indicates they have heard" (Eggins and Slade, 2006, p. 209). The three teachers did this occasionally when they wanted to confirm their students' reply, as seen at Turn/Move 159/a in Extract 7.25. Ms Naima heard her student's answer but wanted to confirm that it was what he meant to say.

The teachers selected the option [rejoinder: support: track: clarify] at times when there was a need "to seek additional information in order to understand a prior move" (Eggins and Slade, 2006, p. 210). Ms Gan did this a few times when she asked students to clarify their answers. Extract 7.26 shows one such instance. Her student gave an unexpected answer to

which Ms Gan sought clarification by selecting the option [rejoinder: support: track: clarify] at Turn/Move 38/a when she asked “What do you mean she’s a little bad?”. This move was necessary to understand the reason for the student’s answer and is testament to Ms Gan’s willingness to enter into two-way conversations with her students and in building knowledge together instead of imposing her thoughts on her students.

Extract 7.25: Ms Naima’s use of [rejoinder: support: track: confirm]

Turns/Moves	Speaker	Spoken discourse
157/a	Ms Naima:	What happened?
157/b		What did the boy do?
157/c		It was very dark.
157/d		But what has he done now?
158/a	Student:	Shoot.
159/a	Ms Naima:	Has he shot him yet?

Extract 7.26: Ms Gan selecting the option [rejoinder: support: track: clarify]

Turns/ Moves	Speaker	Spoken discourse	Gesture
36/b	Ms Gan:	Can you tell me something about this girl?	Point at the image of the girl
36/c		She’s a little bit what?	Still pointing at the image of the girl
37/a	Student:	A little bit bad.	
38/a	Ms Gan:	What do you mean she’s a little bit bad?	Open palm, supine hand position

There is only a slight difference between a clarifying move and a confirm move. While the former seeks to demand more information from the previous speaker, the latter seeks to confirm what was already said. In

Extract 7.25, Ms Naima did not ask for any new information; rather she wanted her student to confirm what he said. This is in contrast with the clarifying move made by Ms Gan in Extract 7.26, where she asked her student to provide new information so that she could understand him better.

The last option available for [rejoinder: support: track] is probe. One such instance is shown in Extract 7.27. Ms Fong began the move by initiating the question to a specific student, “YC, do you think he will catch it? I mean, he will go and catch it now?”, to which many students offered their answers including HR, who had answered ‘Yes’. In the next move, “Why, HR?”, Ms Fong selected the option [rejoinder: support: track: probe] for the purpose of asking the student to justify her answer. This probing for further information is necessary in getting students to justify and articulate their thought processes in improving their metacognitive skills. Instead of closing the exchange by making the ‘feedback’ move in IRF, Ms Fong chose to extend the exchange by selecting the option [rejoinder: support: track: probe], thereby allowing students’ voices to come through in the discussion.

While teachers mostly selected [rejoinder: support], there are times when they would choose the option [rejoinder: confront], to ‘counter’, ‘detach’ or ‘rebound’.

In [rejoinder: confront: challenge: counter], the speaker offers “an alternative, counter-position or counter- interpretation” (Eggins and Slade, 2006, p. 212) of what was raised by a previous speaker. In relation to Extract 7.28, Ms Fong had asked students a prediction question in relation to the picture in the Big Book at Turn/Move 371/a with the accompanying text covered. Two students made their predictions before she proceeded

to revealing and reading the text. Due to the inaccurate predictions made by the two students, Ms Fong explained the alternative interpretation presented in the book at Turn/Move 383e to h by selecting the option [rejoinder: confront: challenge: counter].

Extract 7.27: Ms Fong selecting the [rejoinder: support: track : probe]

Turns/ Moves	Speaker	Spoken discourse
267/a	Ms Fong:	YC, do you think he will catch it?
267/b		I mean he will go
267/c		and catch it now?
268/a	Students:	[Yes].
269/a	Students:	[No].
270/a	HR:	Yes.
271/a	Ms Fong:	Why HR?
272/a	HR:	Huh?
273/a	Ms Fong:	Why?
274/a	HR:	Because he is scared of the wife.
275/a	Ms Fong:	He is scared of his wife HR said.

Extract 7.28: Ms Fong selecting the option [rejoinder: confront: challenge: counter]

Turns/ Moves	Speaker	Spoken discourse
383/d	Ms Fong:	No, you see
383/e		when the fish granted the wish that means make the wish come true,
383/f		then the sky got dark.
383/g		Because the sky is angry.
383/h		Because this fisherman is asking?
384/a	Student:	For too much.

The selection [rejoinder: confront: challenge: rebound] happens when “the moves send the interaction back to the first speaker by questioning the relevance, legitimacy or veracity of another speaker’s move” (Egins and Slade, 2006, p. 212). In the classroom context, one of the ways teachers select this option was when they asked students to reconsider their answers, as shown in Extract 7.29 during Ms Fong’s class. Students commented on the greedy nature of the fisherman’s wife to which Ms Fong asked RV to reconsider at Turn 404/a.

Extract 7.29: Ms Fong’s selection of the [rejoinder: confront: challenge: rebound]

Turns/ Moves	Speaker	Spoken discourse
400/a	Many students:	<i>In no time at all, his wife wanted much more.</i>
401/a	Student:	Why so greedy?
402/a	Ms Fong:	Want more.
403/a	Student:	Very greedy.
404/a	Ms Fong:	Are you sure, RV?

The last option is [rejoinder: confront: challenge: detach] which is described as moves which “seek to terminate the interaction, to avoid any further discussion” (Egins and Slade, 2006, p. 211). Ms Fong selected this option three times - twice to dismiss two students who said that they had read and heard the story before respectively: “Never mind, okay” (Turn/Move 70/b) and “Doesn’t matter” (Turn/Move 175/a). In both instances, Ms Fong chose to give a curt reply before moving on with the lesson, probably to avoid them from sharing details about the story which would render her predicting questions void. There was another instance when she selected the option [rejoinder: confront: challenge: detach] using the semiotic resource of gesture immediately after Turn/Move 148/a, when

a student asked a question which could not be transcribed fully due to poor audio quality: “Ms Fong, are you (unclear).” Ms Fong’s response to this was a slight movement of her head to her left and then back again to the original position. This gesture seemed to communicate a refusal to take up the students’ proposition in his/her utterance for Ms Fong continued with the lesson immediately after.

From the speech function analysis, it is apparent that rejoinder moves by teachers are the most useful in extending the discussion. Teachers who use these moves skilfully will be able to encourage critical thinking in students by, for example, asking them to justify their answers. Although one-word answers by students were abundant in the data, the way teachers reacted to these answers would determine the depth of discussion of the issue or topic at hand. One way of showing how teachers do this would be to analyse exchanges that are considered typical in each of the three classrooms and also exchanges that span over a great number of moves to show how teachers support and extend students’ thinking.

7.5.4 Dynamic approach to multimodal speech analysis

This section begins with a look at the typical exchange structure during the three lessons. This would allow an assessment on whether the default exchange structure is the IRF or according to the framework by Eggins and Slade (2006) [open; initiate], [respond; support; reply; answer] and [respond; support; reply; accept]. For Ms Fong and Ms Naima, the default exchange structures are identified as variations of the basic IRF. One variation opts for an additional move to repeat the student’s answer before giving their feedback. In the speech function analysis, this translates to: [open: initiate], [respond: support; reply: answer], [respond: support: reply: acknowledge] and [respond: support: reply: agree] as seen

in Extract 7.30. The other variation follows up the [open: initiate] move with a move nominating a student to answer a question [sustain: continue: monitor] as shown in Extract 7.31. Repeating students' answers function to create intersubjectivity as students tend to speak directly to the teachers when they answer and/or speak very softly, making it difficult for the other students to hear their answers. Both these modified IRF sequences allow teachers to speak more turns/moves than the basic IRF – teachers speak for three turns while students speak only once in each exchange.

Extract 7.30: First variation of the modified IRF

Turns/ Moves	Speaker	Spoken discourse	Gesture
204/a	Ms Fong:	SY, what is he going to do?	Hands across lap
205/a	SY:	Let it go.	
206/a	Ms Fong:	Let it go.	Hands across lap
206/b		Very good.	Hands across lap

Ms Naima typically used both variations of the IRF but also engaged in what can be called the extended IRF where she asked different students the same question within the same exchange such that the interaction pattern began with Ms Naima initiating a question followed by a student's response and Ms Naima then nominated another student to answer the same question followed by the students' response. This continued until Ms Naima closed the exchange with a [react: respond] move that either evaluated or acknowledged the response(s). She did sometimes engage in more extensive exchange structures during the big book reading. There was a noticeable shift from the big book reading

phase when the typical interaction patterns were the two variations of IRF and the extended IRF to the phase at the end of the big book reading. This was when Ms Naima engaged in the longest exchange of this lesson lasting 184 moves when she held a discussion about the students' nightmares. Her initiating questions included "Tell me about your nightmare", "How does your nightmare look like?", "What does the nightmare do to you?" and "When does the nightmare come?". Ms Naima started with the typical exchanges but this was extended by asking clarifying or probing questions to follow-up from students' answers. Another variation was when Ms Naima developed students' answers by adding details to their answers in order to achieve intersubjectivity with the whole class.

Extract 7.31: Second variation of the modified IRF

Turns/ Moves	Speaker	Spoken discourse	Gesture
61/b	Ms Naima:	So what is he going to do here?	Point to the picture of the boy.
61/c		CL.	
62/a	CL:	Shoot the monster.	
63/a	Ms Naima:	He is going to shoot the monster.	Move the pointer quickly across the page from the picture of the toy gun
63/b		Yeah, maybe right.	

What is interesting at this phase of the lesson is the apparent clash between the curriculum objectives of the lesson and the perspectives held by students about the topic of discussion 'nightmares'. While Ms Naima was obliging in accepting students' contributions about their nightmares, she was very aware of the need to fulfil curriculum objectives in the way she responded to students. 'Nightmare' as conceptualised by the big book is a timid monster who hides in the closet. This is in opposition with the Asian conceptualisation of what a nightmare is. The proliferation of Asian horror movies, a popular genre, ensured that the narrative for nightmares for these young children were ghosts or beings that came back from the dead and were almost always angry and bent on exacting revenge on those who were responsible for their deaths. This perspective was so entrenched in the local culture that the discussion on nightmares during Ms Naima's lesson inadvertently led to students sharing about their nightmares in the form of ghosts.

Extract 7.32 shows part of the whole class discussion on nightmares and one instance of how Ms Naima attempted to navigate the discussion back to the curricular definition of nightmare. The power struggle between IW and Ms Naima is apparent with IW continually correcting Ms Naima. This is unusual compared to the other teacher-student interactions during the lesson where students were usually passive and compliant.

Extract 7.32: Extended discussion of nightmares during Ms Naima's lesson

Turn/ Move	Speaker	Speech	Gesture
326/b	Ms Naima	IW, what about your nightmare?	Palm open, supine position
326/c		What's your nightmare, IW?	Hand clasped on the lap
327/a	IW:	(unclear)	
328/a	Ms Naima:	Huh?	Head turned to one side
329/a	IW:	(unclear)	
330/a	Ms Naima:	It's <u>a real</u> nightmare.	Nodding head rhythmically
331/a	IW:	No, it's true story.	
332/a	Ms Naima:	It's a true story.	
333/a	IW:	Yah.	
334/a	Ms Naima:	What is it?	Head to one side
334/b		What does your .	
334/c		what does this real nightmare look like?	One hand outward, open palm
335/a	IW:	No, not nightmare.	
336/a	Ms Naima:	Not nightmare.	Shake head slightly
336/b		What is it then?	
337/a	IW:	Ghost. I cannot see but my mother see.	
338/a	Ms Naima:	Oh he cannot see.	Nod head rhythmically
338/b		So it's like a ghost.	
338/c		Oh his mother saw this nightmare that is like a ghost.	Open palm, hand outwards
338/d		This particular monster.	Hands clasped on lap

The extract begins with Ms Naima nominating IW to answer her question. IW corrected Ms Naima at Turn/Move 331/a that his nightmare was a 'true story'. Ms Naima asked IW for clarification in her follow-up questions at Turn/Move 334/a to 334/c. IW again refuted Ms Naima when he registered his disapproval for her use of 'nightmare' at Turn/Move 335/a: "No, not nightmare". Ms Naima followed this up again with a clarifying question. She responded with [respond: support: acknowledge] at Turn/Move 338/a and then [respond: support: develop: elaborate] at Turn/Move 338/b to 338/d, for which she equated the term 'ghost' with 'nightmare' and then 'monster' in order to tailor IW's response to the big book. This shows the strong framing coupled with strong classification (Bernstein, 2000) exerted by Ms Naima in adapting students' responses to meet curricular goals. In navigating the interaction back to the 'right' path, Ms Naima essentially used her power to re-frame IW's answer and to abruptly end the interaction at Turn/ Move 338/d by placing her hand in prone position, thereby decreasing dialogic space (see Chapter 6) before nominating SR in the following move. The strong classification of knowledge (Bernstein, 2000) is apparent in this extract as Ms Naima demarcated the conception of nightmare in the big book as separate from students' understanding of nightmare based on their past out-of-school experiences within the Asian context. Ms Naima could have taken advantage of this interaction as it was a unique opportunity to bridge students' out-of-school knowledge with school knowledge by, for instance, explaining the different ways various cultures view nightmares. This speaks of the bigger picture where the big books used by teachers in Singapore schools are written by international authors alongside local ones. The inclusion of international authors aligns with MOE's goal of preparing students for a globalised world. This is best described in one of

the emerging 21st century competencies under the heading ‘Civic Literacy, Global Awareness & Cross-Cultural Skills’: “Our young will ...need a broader worldview, and the ability to work with people from diverse cultural backgrounds, with different ideas and perspectives” (MOE, 2015, para 1, p. 3). Given this, it would follow that teachers are expected to embrace diversity in their classrooms. Ms Naima’s treatment of the cultural tension described earlier run contrary to this policy. Another example of this cultural tension, mentioned earlier in Section 6.3.2, could be found in Ms Gan’s lesson where she likened the teachers in her school and the image of the teacher in the big book based on their physical characteristics: “Looks like some of the teachers in the school, right?” despite the fact that the teacher represented in the big book is a white, Caucasian woman. This may have resulted in the students focussing on minute, irrelevant details such as her small mouth and her long earrings to provide support for Ms Gan’s proposition. On her part, Ms Gan could have shifted students’ attention to her global appearance – perhaps her professional attire as the common denominator for the teachers in the school and the teacher in the big book. Support for teachers in this area in the form of training or peer mentoring may be necessary for them to be able to infuse such competencies into their lessons with comfort and ease. Ms Gan and Ms Naima could benefit from such professional development programmes to build an awareness of the hidden curriculum (Jackson, 1968) or the transmission of beliefs or values that are not intentionally taught by teachers but for which students learn within their classrooms that could affect their learning. Ms Naima’s students, for example, may have learnt that their out-of-school knowledge was not valued in her classroom and this would certainly have an impact on their learning.

There are other occasions where Ms Naima would successfully guide students through exchanges that met curricular goals while valuing students' out-of-school experiences and knowledge. This was shown when students correctly identified the time of day in the big book by pointing out that the presence of the moon outside the window in the image; and when they guessed the room depicted on the cover of the big book based on the image of the dresser.

In addition to the modified IRFs exemplified in Extract 7.30 and 7.31, Ms Fong also engaged students in extended exchanges. This was apparent throughout her lesson. She often did this by opting for the rejoinder options in asking clarifying or probing questions or challenging students' answers. She also often chose the respond option of developing students' answers. The following extract, Extract 7.33, shows how Ms Fong used scaffolding (Wood, Bruner, & Ross, 1976) in helping her students understand the events in the big book.

Extract 7.33: An example of how Ms Fong extended her interactions with students

Turn/ Move	Speaker	Speech	Gesture
331/c	Ms Fong:	<i>His wife was contented for just a short while. Then she said that a mansion was much more her style.</i>	Point to words
331/d		Did I miss a page?	Flip page backwards
331/e		No.	
331/f		Alright.	Flip back to original page.
331/g		So they had a bigger house.	Hands open up to the side.
331/i		But was she happy?	

332/a	Many students:	NO.	
333/a	Student:	Yes.	
334/a	Ms Fong:	Why not?	Hands at the side
335/a	Student:	Because she is still staying at the beach.	
336/a	Ms Fong:	She is still staying at the beach.	Turn head to the book and back.
336/b		And <u>it was</u> not really big.	Pointed at the image in the big book
336/c		What's a mansion?	Hands at the side
337/a	Student:	Errr don't know.	
338/a	Ms Fong:	CR.	Hands at the side
339/a	Student:	(unclear)	
340/a	Student:	What is contented?	
341/a	Ms Fong:	A mansion is a <u>big</u> , 2 or <u>3 storey</u> gigantic house.	Swept arms from centre to sides with open palms
341/b		That's a mansion.	
341/c		What darling?	Hand on lap; the other at side
342/a	Student:	What is contented?	
343/a	Ms Fong:	Contented...Content-ed means satisfied.	Hand on lap; the other at side
343/b		You know what is satisfied?	Hand on lap; the other at side
344/a	Student:	No.	
345/a	Ms Fong:	Happy with.	
345/b		To be happy with.	
345/c		If I ask you are you contented with (pause).	Hand on lap; the other at side

346/a	Student:	Your test.	
347/a	Ms Fong:	Contented with where <u>you</u> are staying.	Rhythmic beat, lift pointer slightly
348/a	Student:	No.	
349/a	Student:	Yes.	
350/a	Ms Fong:	That means are <u>you</u> <u>happy</u> with where you are staying?	Rhythmic beat, circular motion
351/a	Many students:	Yes.	
352/a	Student:	No.	
353/a	Ms Fong:	No.	Hands across lap
353/b		VN.	
353/c		Where would you like to stay?	Hands across lap
354/a	Student:	Beach.	
355/a	Ms Fong:	VN wants to stay by the beach.	
356/a	Student:	I want to stay in condo house.	Hands across lap
357/a	Student:	Condominium.	
358/a	Ms Fong:	CR.	Hands across lap
359/a	CR:	Condominium.	
360/a	Student:	Condo.	
361/a	Ms Fong:	Say the word again.	Hands across lap
362/a	CR:	At a condominium. Condo.	
363/a	Ms Fong:	Again again.	Rhythmic beat, tapping pointer on lap
363/b		Come on.	Rhythmic beat, tapping pointer on lap

364/a	CR:	I want to stay in condominium.	
365/a	Ms Fong:	A <u>condominium is the same as a condo.</u>	Rhythmic beat wave pointer
365/b		<u>Condo</u> is the beginning of the <u>word 'condo-minium'.</u>	Show imaginary bracket on her left and then moved both hands to the right
365/c		Actually it's <u>one word.</u>	Put both hands up and moved towards centre
365/d		So it's condominium.	Point to imaginary word in the air from left to right

Ms Fong opted for the option [sustain: continue: prolong: enhance] at Turn/Move 331/g and [sustain: continue: prolong: extend] at Turn/Move 331/h to explain the paragraph she had just read. Her move at Turn/Move 331/i [rejoinder: support: track: probe] was a yes/no question but it was also a leading question by virtue of the use of the conjunction 'but' at the start of the question. The resounding 'No' at Turn/Move 332/a was the expected reply. Ms Fong's next move [rejoinder: support: track: clarify] served to request students to justify their answer. A student replied but this seemed to be inadequate for Ms Fong. She followed up her repetition of the student's answer, selecting the option [respond: support: track: develop: extend] by providing additional information so that her question 'Why not?', referring to the fact that the fisherman's wife was not happy, would be fully addressed or would be addressed according to the answer she already had in mind when she asked the question in the first place. These kinds of questions for which teachers already know the answer are called 'display questions' (Cazden, 2001). Such questions may lead teachers to provide students with the answers prematurely; that is, before they have explored students' perspectives in providing their answers. This happened in Turn/Moves 336/a and 336/b when Ms Fong

joined two seemingly different ideas with the conjunction 'and'. The student's answer "Because she is still staying at the beach" at Turn/Move 335/a is accurate, especially in view of the discussion earlier, where they discussed the different locations that the fisherman's wife may want to stay at instead of the beach. Because of this, Ms Fong developed the student's answer in her next move by selecting the option [respond: support: track: develop: extend] to provide students with the 'right' answer "And it was not really big" at Turn 336/b. Considering only the semiotic resource of spoken language, this move was unclear due to the ambiguous pronoun 'it'. It could not refer to 'the beach' in the previous sentence as 'the beach was not really big' makes little sense given the events in the big book up to this point. Based on the preceding moves, it could be interpreted that 'it' harkens back to the lines from the big book in Turn/Move 252/c when the fisherman's wife said: "Do not delay. I want a new house and I want it today" and that 'it' refers to the new house. It would be difficult for students to reach this conclusion. However, a clearer picture emerged once we consider the semiotic resource of gesture along with the spoken language in the analysis. While uttering "And it was not really big", Ms Fong had, at the same time, pointed to the image of the new house in the big book, constituting a multimodal phenomenon. This would then make it very clear that she meant the new house when she used the pronoun 'it'. This proves that analysing the speech function of only the speech is insufficient in charting how teachers provide scaffolding in developing students' understanding of the big book; a multimodal analysis is essential in this regard.

Another example in the same extract where a multimodal speech function analysis proves to be useful is found in Turn/Move 365/a to 365/d. Ms Fong had earlier asked her students where they would like to stay.

One of her students replied 'Condominium' while another replied 'Condo'. This was repeated a few times, indicating that these two students believe that these are two different words. Ms Fong took advantage of this to highlight to students that these two words are the same – 'condo' is the clipped form of 'condominium'. At Turn/Move 365/b: "Condo is the beginning of the word 'condominium'", Ms Fong lifted up both her hands with her right hand holding on to the pointer and bracketed the beginning of the imaginary word 'condominium' in the air to denote 'condo'. As she said the word 'condominium', she slid her right hand to the right to highlight the whole of the imaginary word. At 365/c: "Actually it's one word", Ms Fong moved her hands slightly in quick movements towards the centre as she said 'one word' to combine the two imaginary parts together, making it one word. She then used the pointer in her right hand to point to the imaginary word from left to right at Turn/Move 365/d. Ms Fong's coordinated use of the semiotic resources of the spoken language and gestures could be seen as her way of providing scaffolding where she could have taken students from a state of not knowing that 'condo' is the clipped form of 'condominium' to a state that they understood that these refer to the same word by providing the necessary support through her explanation. This shows that a multimodal speech function analysis is beneficial in describing how teachers provide scaffolding (Wood, Bruner, Ross, 1976) for their students.

Ms Gan's typical exchange structure is different from the other two teachers. She extended the exchange by choosing the 'rejoinder' options in confirming, clarifying or probing without closing the exchange. Extract 7.34 shows a typical exchange structure during Ms Gan's lesson.

Extract 7.34: Typical exchange structure during Ms Gan's lesson

Turn/M	Speaker	Speech	Gesture
140/f	Ms Gan:	What problem do you think that they have?	Pointing to the word 'problem'
141/a	Students:	(Overlapping answers) Sound!	
141/b		Rumble sounds!	
141/c		Thunder!	
142/a	Ms Gan:	The rumble sound?	Wave hands at the back of ear
142/b		The rumble thunder?	Wave hands at the back of ear
142/c		Oh, you think there's a thunder going on?	Oscillating one hand
143/a	Many students:	No!	
144/a	Ms Gan:	You think the sky is turning black, turning dark?	Pointing outside the window with her pointer
145/a	Many students:	No!	
146/a	Ms Gan:	Grrrrr!	Pointing to word in big book

Ms Gan opened the exchange with an initiating move by asking a question. Students duly answered in Turn/Move 141/a to 141/c and Ms Gan picked up on their answers in Turn/Move 142/a, 142/b, 142/c and 144/a by selecting the option [rejoinder: support: track: confirm] to ask students to verify that she had heard their answers correctly. The questions at Turns 142/c and 144/a were leading questions of the yes/no type, asked in a mocking tone. Thus, the 'no' reply from students was expected and possibly approved by Ms Gan as she continued reading the big book. Ms Gan left her initial question "What problem do you think that they have?" at Turn 140/f unanswered and did not give an explicit evaluation of the students' answers. This could cause confusion amongst

her students. As such, even though Ms Gan's typical exchange is longer than that of the other two teachers, the unresolved questions at the end of most of her exchanges affected the quality of learning in her lesson.

Ms Gan also relied on gestures more than the other two teachers in her interactions with students. Most of these were hand gestures used to expand or contract dialogic space, especially in regulating students' behaviours. Ms Gan's technique of pausing after her questions before nominating the next student speaker often caused students to bid for their turns by raising their voices. In attempting to regain control of the class, Ms Gan raised her voice and used her hand in prone position to quieten the students, contracting the dialogic space. Ms Gan also gestured more than the other teachers when she pointed to images or words in the big book and when she interacted with her students during the big book reading. A possible explanation for this excessive gesturing as compared to the other two teachers could be the continuous need for Ms Gan to manage the dialogic space. In her attempts at capturing her students' attention and keeping them focussed, she had to rely on semiotic resources other than her speech. At one point, just asking about an image in the big book was not sufficient as Ms Gan had to be louder than her students so she used the gesture of pointing to the image with one hand and pointing to the students with the other as multimodal phenomena (O'Halloran, 2011) to open the dialogic space for the nominated speaker.

This chapter began with the appraisal analysis of the three teachers' use of speech and gestures in expanding and contracting dialogic space. The bottom-up approach illustrate that teachers used the pointing gesture, the words and images from the big book to similarly expand and contract dialogic space. While the appraisal analysis shows how the teachers encourage students to contribute their answers or

otherwise, it is less useful in charting interaction patterns between teachers and their students including how teachers provide scaffolding in taking students through their zone of proximal development (Vygotsky, 1978). A closer analysis of the student-teacher interaction using the speech function framework by Eggins and Slade (2006) and a multimodal approach proved that such an analysis is indeed useful as teachers use the semiotic resources of the speech and gestures when providing scaffolding to their students.

7.6 Conclusion

The Appraisal analysis of gestures shows that teachers rely on the open palm supine hand position more than the prone position. The bottom up approach reveals how other semiotic resources such as the images and written words of the big book play a role in contracting dialogic space.

The next chapter, Chapter 8, discusses the main findings in the chapters and explores the contributions, limitations and suggestion for future research.

CHAPTER 8 : DISCUSSION

8.1 Introduction

This thesis is a culmination of my life experiences as a teacher, a Master's student and a Research Associate involved in classroom research. Throughout my teaching career in a primary school, I was always fascinated by how teacher talk functions to build rapport with students but at the same time manage their behaviour, select the relevant topics and determine the focus of the discussion while achieving curricular objectives. This interest grew as I took a Master's course in multimodal communication and representations; 'teacher talk' had now expanded to other semiotic resources such as gesture and space and how these combine to create multimodal phenomena. I then began work as a Research Associate and was involved in two separate projects on classroom research in primary schools. These experiences in the various phases of my life collectively shaped the foundation of this thesis and the development of the research questions:

1. How do teachers interact with students in managing dialogic space in order to promote student engagement during big book reading lessons?
2. What issues does this raise in relation to teaching and learning?
3. How does a multimodal perspective contribute to a richer understanding of dialogic space in these classrooms?

The first two questions will be discussed together in Section 8.2 as these relate to the close analysis of the data while the last question requires a global perspective of the analysis and this will be discussed in Section 8.3.1. In this discussion, I will connect dialogic space to student engagement on the premise that with this age group a purely formal IRF

framework does not expand interest or a desire to contribute. A concerted effort on the part of teachers to listen and build on students' contribution may potentially increase participation at a specific moment and so contribute to the development of students' critical thinking skills. The discussion now relates to how engagement can be promoted through the management of dialogic space by teachers using the semiotic resources of speech, gesture and space in the three lessons by way of the PETAL framework.

8.2 Framing student engagement within the PETAL framework

The first and second research questions explore the interaction between teachers and students during whole class discussions in managing dialogic space in order to promote student engagement and what this means for teaching and learning. The teachers and students from the present research are from the lower primary levels where the STELLAR programme, a mandatory part of the English curriculum in primary schools in Singapore, is carried out during the observed lessons (see Chapter 1, Section 1.2.7). High quality teacher-student interaction is the corner-stone of the STELLAR programme where students are viewed as active and engaged participants in their learning. This is embodied in the five dimensions of engaged learning identified in Singapore classrooms known as the PETAL framework (see Chapter 1, Section 1.2.1) : 'Pedagogy', 'Experience of learning', 'Tone of environment', 'Assessment' and 'Learning' (MOE, 2005b). The framework is all-encompassing and comprehensive in viewing the concept of student engagement from the five dimensions. Because the focus of this research is on teacher-student interactions, only certain aspects of the framework applies; for instance, the present data and analysis does not provide

evidence for “develop(ing) students’ control of their own learning” (MOE, 2005b, p. 18). This would require the tracking of students’ learning which is beyond the scope of this research.

8.2.1 Pedagogy

In the PETAL framework, pedagogy is defined as a collection of instructional models and strategies (MOE, 2005b). Examples of instructional models include lecture/presentations, cooperative learning and whole class discussion. Within these instructional models, there are strategies that teachers use. For whole class discussion, which, as we will see next, is highly relevant to this study, these strategies include “questioning, waiting time and check for understanding” (MOE, 2005b, p. 12).

The three observed lessons by the three teachers in this research study were Shared Book Approach (SBA) lessons, which are part of the STELLAR programme and constitute the first of a series of inter-related lesson parts (see Chapter 1). SBA lessons are unique in that the pedagogy of whole class discussion is embedded within the approach. As such, the three teachers were bound to this pedagogy. In order to use the strategies of whole class discussion effectively, teachers would importantly need to know their students’ existing knowledge in order to provide them with the links and necessary scaffolding for the new material (Wood, Bruner, & Ross, 1976). There is evidence that the three teachers in the present research study may have taken their students’ existing knowledge into consideration, as in the following examples.

This is most obvious when the teachers checked their students’ existing knowledge of words that may be unfamiliar to them, effectively expanding dialogic space. These examples are typical of how the three

teachers elicited or explained the meanings of unfamiliar words in the big books. At one point in her lesson, Ms Fong initiated the question: “What’s a mansion?” with her hand in supine position after reading the line “His wife was contented for just a short while. Then she said that a mansion was much more her style.” In order to understand the reason for the wife’s dissatisfaction, the meaning of the word ‘mansion’ must be clear to students so that they could then infer that the present house was not big enough for her as she wanted a mansion. Ms Fong provided the definition of the word ‘mansion’ immediately after a student replied “Don’t know”, thereby effectively contracting the dialogic space. This type of scaffolding is useful only in the time that it was given – by providing the definition of the words, Ms Fong may have lost the opportunity to teach valuable vocabulary skills such as deriving the meaning of the words from contextual cues for which students could apply independently in the future. Hence, while support was given at a crucial time, the kind of support given might not be the most beneficial for students. Ms Fong also scaffolded students’ understanding of unfamiliar words through the use of analogies (see Section 8.2.4).

Similarly, Ms Gan asked students whether they knew what a brontosaurus was whilst pointing to the word ‘brontosaurus’ in the big book with the pointer after they read the line: “Now bring me,” I yell at everyone, “a brontosaurus”. A few students gave the correct answer in chorus, prompting Ms Gan to follow-up with a leading question, “The word here ‘saurus’ will tell you it’s a?” while opening her palm in an upwards position. This time, more students answered correctly. While the question here served to narrow the choices available to students to make it easier for students to arrive at the right answer, students who may not have known that a brontosaurus is a dinosaur had the alternative option of taking their

cue from the others who had answered correctly. The question, therefore, was a contraction of dialogic space in that it merely required students to repeat what other students had already answered correctly; it is not the kind of question that stretches students' thinking.

The meaning of the word 'brontosaurus' is important here as students needed to appreciate its gigantic size to infer that only a brontosaurus could satiate the main character's hunger. The size of the brontosaurus was accentuated when Ms Gan opened her arms wide when she said, "Dinosaur". This added another layer of meaning to the word 'dinosaur' and allowed students to 'see' how big a dinosaur is. The relationship between 'dinosaur' and the gesture, however, may be lost on some students as there is a considerable cognitive leap from the word to gesture if students do not understand the word 'dinosaur' in the first place, although there were a few students who answered Ms Gan's question, "Do you know what is a brontosaurus?", correctly. This confusion could have escalated when Ms Gan continued by asking what brontosaurus ate whereas the big book was about the main character, a girl, wanting to eat the brontosaurus. Hence, while the scaffolding occurred at an appropriate time in the discussion, it failed to follow through to the end of the exchange and could have resulted in more confusion.

Ms Naima also checked her students' understanding of a word used in the big book. She was concerned that students may not be familiar with the word 'closet' found in the big book when she asked them "What's another word for closet? Do you use closet in Singapore?" whilst flicking her wrist quickly to the supine hand position on the word 'closet' in the second question before retracting her hand and placing it on her lap. Ms Naima went a step further than the two examples of the two teachers earlier in managing the dialogic space available for students to contribute

their answers. When the first student furnished the wrong answer, Ms Naima provided a hint “Where you keep all your clothes” in order to support students further while narrowing the dialogic space. The next student predictably gave the correct answer. This gives rise to the question of whether the extra support was provided prematurely before students were given a chance to fully explore and contribute their ideas.

The purpose of the teachers’ questions was to find out if students knew the meaning of the words. Gauging students’ existing knowledge is a pre-requisite for scaffolding (Wood et al., 1976a). Only when teachers are aware of what their students know can they provide the necessary scaffolding to move their students’ learning forward through their zone of proximal development (Vygotsky, 1978). The examples show how the teachers gathered information about their students’ existing knowledge before proceeding to provide the necessary information in order for them to gain a global understanding of the big book and thus, possibly promoting student engagement.

For all three teachers, the scaffolding provided enables students to gain a better understanding of the ideas contained in the big book, which is one of the main objectives of any SBA lesson. Their sensitivity to their students’ needs and potential learning, based on their perception of their students’ existing knowledge and developmentally appropriate next steps, are seemingly crucial in ensuring that students remain engaged in the lesson. As mentioned in Chapter 1, the students in the lower primary classes in Singapore have differing levels of English proficiency. Thus, it is necessary for teachers to provide scaffolding at appropriate junctures during the lesson to ensure that all students have a common understanding of the big book. The scaffolding provided was often made up of ‘multimodal phenomena’, as seen in the example of Ms Gan above

when she made the gesture to show how big a brontosaurus is while saying the word, “Dinosaur”. This corroborates with the findings reported by Sharpe (2006) in that teachers use a combination of semiotic resources when scaffolding.

Extract 6.9: Contracting dialogic space: An example from Ms Gan’s lesson

Line	Speaker	Spoken discourse	Appraisal analysis
1	Ms Gan:	OK, so, Look at this picture.	[Monoglossic]
2		Who is this person?	[heteroglossic: expand; entertain]
3	Many students:	A teacher!	
4	Ms Gan:	A teacher?	[heteroglossic: expand; attribute; acknowledge]
5		What makes you say that she’s a teacher? Why can’t she be a mother?	[heteroglossic: expand; entertain]
6	Student:	Because because she’s [holding paper].	
7	Student:	[looking]	
8	Ms Gan:	Because she’s holding some worksheets, right?	[heteroglossic: contract; proclaim; concur; affirm]
9		And and does she look like a teacher?	[heteroglossic: contract; proclaim; pronounce]
10	Many students:	Yes!	
11	Ms Gan:	Looks like some of the teachers in the school right?	[heteroglossic: contract; proclaim; concur; affirm]

In providing scaffolding, the teachers often narrowed the dialogic space progressively in order to narrow the scope or range of answers available for students. This can be seen from the questions they asked. A relevant example was discussed earlier in the thesis in Extract 6.9 (Section 6.3.2) which occurred during Ms Gan's lesson reproduced here in part for ease of reference.

Mrs Gan began with two expository questions in Line 5, selecting the option [expand; entertain] to which a student answered "Because because she's holding paper". She then contracted the dialogic space in Line 8 with the option [contract; proclaim; concur; affirm] which was a repetition of the student's answer presented as information shared within the class with a change in the word 'paper' to 'worksheets'. Seemingly unsatisfied with this answer, she continued to contract the dialogic space by introducing a new proposition that the woman in the picture looked like a teacher: "And and does she look like a teacher?" at Line 9. I made the argument earlier that the contraction of dialogic space in Line 8 and 9 are qualitatively different. The dialogic space contracted at Line 8 and contracted even further in Line 9, suggesting that dialogic space can be thought of as a cline with 'more dialogic' at one end and 'less dialogic' on the other end instead of the either/or relationship between the different kinds of contraction of dialogic space necessitated by the structure of the system network of the engagement system in Appraisal analysis. The degrees of contraction of dialogic space could not be captured faithfully in the system network but the reconfiguration from the system network to a cline is a radical change that would require further work and collaboration with other researchers that go beyond the scope of this thesis. The feasibility of such a cline is something that could be explored in future research.

8.2.2 Experience of learning and Assessment

The two PETAL categories of Experience of learning and Assessment will be discussed together in this section. The focus of Experience of learning in this section will be on the ways that teachers use the questioning strategy to engage their students by “challenging their viewpoints and assumptions, and provoking and stretching their thinking to a higher level” (MOE, 2005b, p.12). This is primarily achieved through the teacher-student interactions using the different semiotic resources such as speech, gestures and space. Assessment in this section will be taken to mean the feedback provided by teachers during the whole class discussion as part of the teacher-student interactions.

When applied to the current research, stretching students’ thinking is manifested in the present data as moves made by the three teachers that select the options [open: initiate] and [react: rejoinder] as shown in the multimodal speech function analysis in Chapter 7, Section 7.5.

In selecting the [open: initiate] option, the teachers demanded information using open or closed questions and sought to get students to think about aspects of the big book like its cover page, images or plot in their lessons. Open questions asked by the teachers require students to complete the proposition forwarded in the question and closed questions are those that require students to confirm or deny the given proposition (Eggin & Slade, 2006). When the teachers selected the [react; rejoinder], they either challenged or provided support to students. In supporting them, teachers asked follow-up questions that served to confirm what they heard, check the details of students’ answers, seek clarification by asking for further details and offer additional information for students’ confirmation based on their answers. There were also times when they challenged students by selecting the option rebounding, that is to question the

“relevance, legitimacy or veracity of another speaker’s move” (Eggins and Slade, 2006, p. 212) or issuing a counter move to “dismiss (an) addressee’s right to his/her position” (Eggins and Slade, 2006, p. 213). This could also be described in terms of dialogic space in the appraisal analysis. Teacher questions in the opening move and further questions in response to students’ answers were dialogically expansive as teachers invited students to contribute their ideas. The contraction of dialogic space happened when teachers reduced the scope of possible answers, supplied the correct answers to students or agreed with students’ answers, sometimes prematurely.

An ideal teacher-student interaction would entail a series of moves that select these open and rejoinder options that are dialogically expansive but still moving towards the fulfilment of curricular objectives. This series of moves is best described by Alexander (2003, p. 35): “it is the qualities of continuity and cumulation which transform classroom talk from the familiar closed question/answer/feedback routine of the classic initiation–response–feedback exchange into purposeful and productive dialogue where questions, answers, feedback (and feedforward) progressively build into coherent and expanding chains of enquiry and understanding”.

This is indeed a herculean task, considering the speed and dynamic nature of teacher-student interactions. The weight of such a task could perhaps be lifted by the effective management of the regulatory and instructional discourse in the pedagogic discourse (Bernstein, 1990). In Ms Fong’s and Ms Naima’s classroom, the regulative discourse works in the background such that there was very little need for explicit control. This is contrasted with Ms Gan’s classroom, where the need for explicit control arose frequently. This affected the workings of the instructional discourse due to constant disruption by the regulative discourse. This can be seen

from the analysis of lesson genres and microgenres in Chapter 5 (see Appendix 1, 2 and 3). While the bar graphs of Ms Fong and Ms Naima showed minimal disruption in the progress of the lesson, the bar graph for Ms Gan was significantly more disruptive. In addition, the mood analysis shows that her use of exclusive imperatives or imperatives directed at students, is at 11% compared to 5% for Ms Fong and the same percentage for Ms Naima. This constant disruption and issuing of commands to students impacted on the flow of Ms Fong's lesson and one outcome of this was the lack of closure in her exchanges. This limited the opportunities for her to have "purposeful and productive dialogue" (Alexander, 2003, p.35) as described earlier and would certainly impact on her students' engagement and potentially on their learning experience.

There is evidence that all three teachers did engage their students by stretching their thinking through the semiotic resources of speech and gestures. Ms Fong, especially, was very skilful in extending her exchanges with students, exemplifying the kind of interaction espoused by Alexander (2003). Her interaction patterns were extended, often making supporting rejoinder moves for the purposes of clarifying students' answers by asking further questions such as "What do you mean by tiring?" and "Why not?" which served to request more information from students so their answers would be more complete or to justify their answers. Questions such as these have been identified as 'uptake' by Nystrand (1997) and these figured prominently in his classroom discourse research into student learning, noting that it is imperative for teachers to follow-up on students' answers appropriately for them to promote student learning.

Ms Fong also made supporting rejoinder moves by providing additional details to close information gaps for students to confirm. At one point in the lesson, Ms Fong asked how the fisherman felt, pointing to his

face in the image. When her students answered 'sad', she compared this to how he was feeling earlier, referring to his image in the previous page, pointing to his face then saying, "Actually here he was very happy, isn't it?". In making this comparison, the semiotic resource of image in the form of the facial expressions of the fisherman played an important role.

Apart from making supportive rejoinder moves, Ms Fong also made moves that could be considered as confronting such as to cast doubt over or counter students' answers. One instance of the former was when Ms Fong asked RK, "Is it about fishmonger?" after he gave the incorrect answer 'fishmonger'. This allowed RK to reconsider his answer although Ms Fong moved on to nominating another student after a short pause failed to obtain a further response from RK (see Chapter 7, Section 7.5.2 for the full discussion). Ms Fong also countered her students at Turn 383 (see Chapter 7, Section 7.5.3 for the full discussion) when she gave an alternative interpretation of the events in the big book after two students gave inaccurate answers. In both cases, dialogic space was contracted but this seemed necessary at this point in order for students to understand the future events in the story.

Ms Fong mostly nominated her students after asking her questions. This happened either immediately after or after a slight pause. Students raised their hands if they wanted to answer her question and most of the time, waited to be called upon before answering. Sometimes, Ms Fong would nominate students who did not raise their hands. This showed that she may have been concerned that not all her students were given opportunities to have their voices heard or that there were students who were not as engaged with the lesson as they ought to be. Either way, this resulted in a fairer and more equitable sharing of speaking turns in her classroom.

There were times when students were observed to make comments or ask questions without being invited by Ms Fong. These, however, were not viewed negatively by Ms Fong as she made follow-up moves, entertaining their views and answering their questions. Turn-taking in this class proceeded in an organised manner even though there were times when students spoke out of turn as these happened appropriately. Ms Fong's students seemed to understand the conventions of participating in whole class discussions – even when they spoke out of turn, they knew when to do this so as not to disrupt the discussion. Alexander (2004) identified this as one of the ways in which a “dialogic climate can be fostered” (p.27), where students and teachers respect each other and students respect their peers. Only with respect would students listen while their teachers or their peers are speaking and respond when they have finished their turns. This may seem like common knowledge but inculcating such values in students seemed to be a challenge, at least for this data set, for Ms Gan, whose students not only spoke over each other but also spoke out of turn without waiting for Ms Gan or their peers to finish speaking.

Ms Fong's interaction patterns can be surmised as supporting with many instances of stretching students' thinking and building knowledge together with students. Where she made confronting moves, there were more rebounding moves, where she questioned the accuracy of students' answers than countering moves.

The interaction patterns during Ms Naima's lesson were analysed in two phases due to the stark differences found – the first phase was during the big book reading and the second phase began when Ms Naima had completed the big book. In the first phase, the two variations of the IRF discussed earlier were frequently used (see Extracts 7.31 and 7.32 in

Chapter 7) in addition to the developmental moves which extended students' moves and were supportive in nature. On one occasion, a student's answer "It's not enough because the monster already big" did not fully explain the event in the big book. Ms Naima then built upon his answer to explain how there was not enough space on the bed to fit yet another monster.

During this phase, Ms Naima seldom selected the rejoinder moves. When she did select the rejoinder moves, she chose to mostly ask questions to clarify students' answers; for example, she followed-up a student's answer with a 'why' question. This required students to justify their answers and to think more critically about how they reached their conclusions. This expanding of dialogic space concurrently resulted in greater student engagement.

Ms Naima's interaction patterns were therefore basically IRF with many developmental moves during this first phase. This interaction pattern was made possible perhaps due to how Ms Naima designed her interactions with her students. Framing was strong (Bernstein, 1975) in both phases of her lesson, shown by how Ms Naima nominated the next student speaker after asking her question. Any student who answered out of turn was consistently ignored. As the lesson progressed, it became apparent that Ms Naima nominated the same students to answer her questions which meant that she expanded dialogic space only for this select group of students. This raises the possibility that these students were nominated because they were known to be able to answer questions correctly, thus supporting the IRF exchange structure. In doing so, there could be a group of students who were disadvantaged by systematically being silenced by Ms Naima. For these students, dialogic space was closed off with little or no option of voicing their opinions or ideas. One

student who was clearly in this position was AV, who was made to stand next to the big book stand to hold the page of the book in place, an unnecessary task as the opened pages were held in place by the ledge of the big book stand. Throughout the first phase of the lesson, AV was not involved in the whole class discussion as Ms Naima faced the students seated on the floor by virtue of his physical position. In other words, Ms Naima exerted her authority in placing AV adjacent to her on the right, thus excluding him from the discussion. This demonstrates that the interaction patterns in this class were affected by the semiotic resource of space. Instead of wielding her authority explicitly, she framed her request in putting him in the said position as a virtuous deed so that he could help her turn the pages of the big book. As a result, AV's learning experience was cognitively different from that of his classmates' and could put him at a disadvantage.

In making developmental moves, Ms Naima added more details to students' answers which can be seen as imposing her thoughts on her students. Because of the tightly controlled turn-taking process during her lesson, Ms Naima's students did not have the opportunity to react to such developmental moves, thereby ending the exchange. The first phase of Ms Naima's lesson could, therefore, be described as authoritarian where speaking rights were available only to a select group of students.

The second phase of Ms Naima's lesson proved to be more dialogic. With the big book and her pointer set aside, Ms Naima adopted a more relaxed posture and asked questions about students' nightmares. The exchange lasted 184 moves, the longest of all the three lessons. Ms Naima directed her questions to different students. As mentioned in Chapter 7, Ms Naima attempted to steer students away from the Asian conceptualisation of a nightmare to that which aligns more to the

nightmare pictured in the big book. She usually opened the dialogic space by asking open questions to students but promptly narrowed this when students answered in ways that did not conform to the nightmare in the big book. At this juncture, there was strong classification and strong framing as Ms Naima made deliberate attempts at navigating the discussion away from her students' prior understanding of nightmares.

The interaction pattern during Ms Gan's lesson was essentially initiation-response followed by checking, confirming, probing and/or clarifying questions such as, respectively "She what?", "Oh, you think there's a thunder going on?", "Echo is it a repeated sound?" and "What makes you say that they are sitting on the floor?". She also made confronting rebounding moves to question the accuracy of students' answers. On one occasion, a student provided the wrong answer "Crying" to her question about how the students were feeling. Ms Gan then replied, "Erm...look carefully" while pointing to the students in the image with the other hand clutching one side of the big book, contracting the dialogic space before expanding the dialogic space again by making a countering move, "Are there tears in their eyes?". This could have provided scaffolding to the student in question and given him an opportunity to review his answer. However, this exchange was not resolved satisfactorily as the student gave a vague reply, "Looking" and this was not followed up by Ms Gan as she accepted another student's unsolicited reply "Sitting on the mat" with one hand in supine position.

There were many instances where students' responses were not followed-up by the feedback move. As such, many questions were left unresolved and this could have an impact on students' understanding of the big book. The example referred to in the previous paragraph made clear how the student could still be confused due to the vague answer he

had given – was he still looking? Or did he mean the students in the big book were looking at something? By failing to follow up on his answer, Ms Gan lost the opportunity to ensure that the student had successfully understood how his answer was incorrect.

Another way that Ms Gan left questions unresolved was by closing the exchange after acknowledging students' answers. This was done by repeating their answers in a rising tone without explicitly giving feedback. One instance of this was when a student's answer, "Her belly shaking, shaking" was repeated by Ms Gan, "Her belly is shaking?" while moving one hand rapidly to act out the word 'shaking', thereby closing the dialogic space. She proceeded with the reading of the big book without giving feedback to the student.

While expanding dialogic space during class discussion is generally viewed as good teaching due to the consideration of students' voices, the exchange must come to a close, contracting the dialogic space so that students come to the common understanding of what could be considered as an acceptable answer during the feedback move. This happened very rarely during Ms Gan's lesson. A possible explanation for this is the disorganised discussion in her classroom. Students competed against each other for the right to speak as Ms Gan often paused after her initiation move before selecting a student to answer her question. This often escalated beyond her control and it seemed that going back to reading the big book was one way to bring their focus back to the big book and quieten them down.

In her feedback moves, Ms Naima mostly repeated her students' answers in a rising or falling tone. Where she repeated their answers in a rising tone, she would follow these with a 'right?' such as "Now is a full

moon, right?” and “So he is really scared, right?”. This was presented as information that was already shared with the students and Ms Naima was just seeking confirmation. This was an important move in ensuring that there was a common understanding.

Ms Fong gave different kinds of feedback. While she repeated students' answers in a rising or falling tone, she also gave positive, appropriate feedback. For instance, when a student came up with a good alternative word for 'strange', her feedback move was “That's a good one. I like that.” This showed a considered and sincere approach in giving feedback.

Nearly all the questions during the three lessons were asked by the teachers and all three teachers attempted to engage their students through questioning: Ms Fong, Ms Gan and Ms Naima's asked 105, 74 and 165 wh-questions; and 59, 65 and 48 yes-no questions. Answering wh-questions is considered to be a more challenging task for students than that of yes-no questions as the former requires students to supply the proposition and therefore requires a more elaborate answer than that of the yes-no questions where a one-word yes or no would suffice (Marton & Tsui, 2004; Walsh, 2011). While they all asked more wh-questions than yes-no questions, Ms Gan asked about the same number of both types of questions. In spite of this, students mostly produced elliptical as compared to full clauses: Ms Fong's students at 145 to 63 clauses respectively and Ms Gan's students at 174 to 47 clauses respectively; with the exception of Ms Naima's students who produced the same number of either clauses at 70 to 72 clauses respectively. This points to the fact that even though teachers asked more of the dialogically more expansive wh-questions, students still answered in elliptical clauses. This could be due to the students' lack of linguistic skills in providing extended answers or the

teachers' low expectations of students – if teachers accepted elliptical clauses in the form of minimal responses from students, they may not be motivated to provide a more extended response. Among the three teachers, Ms Fong asked the most follow-up questions designed to expand students' thinking, resulting in elaborate answers from students. The other two teachers did so minimally.

At the beginning of Ms Fong's lesson, Ms Fong seemed more concerned about students answering in full sentences. This aligns with school language, where full sentences are valued and deemed more 'correct' than ellipted responses. As the session progressed though, the nature of the teacher-student interaction morphed into something more conversation-like, mirroring everyday language. Thus, the framing could be said to be strong in the beginning of the lesson but became progressively weaker towards the end of the lesson when Ms Fong allowed students to take speaking turns without first being nominated and to provide ellipted responses. Ms Fong, however, continued to recast her students' answers to correct their phrasing or to string their answers into a proper sentence when necessary.

This was also the case in the second phase of Ms Naima's lesson, when she asked students about their nightmares. Given the speed and dynamic nature of spoken interaction, it is perhaps unrealistic to expect students to answer in full clauses all or most of the time. The tension between the curricular expectation of students producing full sentences; and maintaining rapport and flow of the interaction proved to be difficult to juggle. When Ms Fong insisted that students answered in full sentences, she had to stop the interaction and narrow the dialogic space to issue the command. This intentional breaking up of the interaction had an adverse impact on the flow of the interaction.

In responding to the teachers, students also raised their hands accordingly when teachers asked questions like “How many of you agree? How many of you disagree?”. This technique of asking questions allowed the teachers to assess students’ understanding quickly; the equivalent of which was the yes/no type question for which an oral response was required. While dialogic space expanded at this point, it was limited as students needed to only give their responses by raising their hands.

In questioning students, teachers expanded the dialogic space. At times, the three teachers scaffolded students by asking more specific questions and/or reducing the number of options available to students. This, thus, narrowed the dialogic space. Sometimes, teachers asked a series of questions and/or statements, progressively narrowing the dialogic space. For instance, Ms Fong asked, “What happened here? Make a guess. Make a guess. WS, what’s that? What’s that? What did he go? Where did he go? What’s he doing?” These questions were asked one after another without pausing. The question at the beginning expanded the dialogic space, presenting students with the possibility of multiple answers. This continued with the two requests of making a guess. The next question contracted the dialogic space as Ms Fong asked the question, “WS, what’s that?” not only because she asked the question to an individual student but also because she pointed to the net in the image. She then asked the class the same question as she looked away from WS when he failed to provide a response. This was followed by two other questions, “What did he go? Where did he go?” as she tapped once on the image. At the last question, “What’s he doing?” she flicked both her wrists to the back before moving them forward quickly – acting as though she was casting a net. This narrowed the possibilities further, thereby narrowing the dialogic space even further. This narrowing of dialogic space through questioning

served to direct their thinking so as to help them answer her questions and can be seen as a scaffolding device. On the other hand, this rapid series of questions could also be viewed negatively, where the students were not given thinking time to process the questions and thereby, limiting the dialogic space. This was indeed a complex situation where different students' abilities needed to be considered. For the lower-ability students, the rapid narrowing of dialogic space could help them to achieve success whilst for the higher-ability students, this could be frustrating as they were not given the space to think or respond to the questions.

It is worth noting that the teachers made very few confronting moves and were reluctant to point out that students had given inaccurate or wrong answers. Only Ms Fong made the [rejoinder; confront: challenge: counter] moves and even then, only three examples could be found in her lesson. Ms Naima and Ms Fong each made one [respond; confront; reply; disagree] when their students gave the wrong answers. Most times, the teachers employed the use of [rejoinder; confront; challenge; rebound] to bypass the need to negatively evaluate students' answers. This was when teachers asked questions such as Ms Fong's "Are you sure?", Ms Gan's "So it's the teacher who made the sound?" and Ms Naima's "Does he look sad? Does this look sad? The eyes like that". Although these questions seemed to require an answer from the students who provided the incorrect answers, they did not do so and the teachers did not pursue a further line of questioning with them; for instance, after Ms Naima made the rebounding moves, she immediately nominated another student, DN, to answer the question; thereby, closing off the dialogic space with the students who had given the wrong answers.

Alexander (2003) accurately summed up this situation where "teachers will strive to avoid exposing children to the embarrassment of

making a public mistake, and if they do, their feedback may be decidedly ambiguous ('Ye-es' meaning, 'No, but I don't want to discourage you by saying so.')" (p. 31). Alexander made this comment about British and American teachers but this applies to the three teachers in the study as well. In Singapore, a deep-seated culture exists where there is a need to 'save face', an act of protecting the dignity of others where public embarrassment of any sort should be avoided. The teachers in this study seemed to be working within this social code when dealing with incorrect or inaccurate answers from students although Ms Fong was notably more inclined to set things right and had on three occasions made counter moves as discussed earlier. In such a situation, the teachers were observed to move on to another student in the hope that he or she would provide a correct answer; or give a non-committal reply by repeating the students' answer in a rising tone or by answering with a 'maybe'. In the former, a typical exchange would entail the student providing the wrong answer and the teacher would then detach herself from the student by looking away, contracting the dialogic space for this student before gazing at and nominating another student, thereby expanding his/her dialogic space, sometimes accompanied by the supine hand gesture. In the latter, by giving a non-committal reply, the teachers maintained an open dialogic space while avoiding the outright dismissal of the students' answers.

Part of the experience of learning has to do with how the three teachers controlled the peer to peer interaction during the whole class discussion, which was non-existent across the three lessons. Students do not interact with other students although there were opportunities to do so. Even when students were building on each other's responses, they maintained their interactions with their teachers. The three teachers were therefore the focal point during the whole class discussions and this

perhaps had to do with the position of the teachers and students (Kress et al., 2005; Kress et al., 2001; Lim et al., 2012). By taking the front, centre position while students sat in rows facing the teachers, it would not be natural for students to turn around and face each other to talk, especially when it would contravene the rules of the classroom. Taking into consideration the age of the students, though, it is perhaps necessary for teachers to remain in control of the discussion in order to ensure that discussions remain on-track in achieving curricular goals.

8.2.3 Tone of environment

The PETAL framework defines Tone of Environment as a “quality of the learning environment that supports learning” (MOE, 2005b, p.24). In this thesis, this is interpreted as the way teachers provided a warm and supportive learning environment for students that encourages the expansion of dialogic space. Ms Fong was exemplary in this regard. She employed the use of speech to praise students such as ‘very good’ and ‘I like that’ when they answered correctly. She also used the gesture, the clapping of hands, to provide emotional support. The warm environment was also evident when the class applauded after a student provided an answer, though this was not consistent. The applause seemed to be reserved only for deserving students who had been deemed to have given an especially brilliant answer. This contributed to the invisible pedagogy as it was not immediately clear when or how a student would deserve the applause. Most of the time, Ms Fong would begin the applause but on two occasions, a student initiated the applause and Ms Fong clapped with the rest of the students. As such, framing is still quite strong here as Ms Fong mostly remained in control of when to applaud. Nonetheless, the applause contributed to the warm and supportive learning environment in this classroom.

A spirit of cooperation and mutual respect was apparent in this classroom where students were supportive of each other evident in the way they celebrated the success of their peers by clapping for them. This was also evident when students listened to their peers and waited for their peers to complete their contribution before making their own. This had a positive impact on their learning as Ms Fong was able to carry out extended interactions with her students, expanding the dialogic space.

Apart from the cooperative spirit of the class, the harmonious and orderly whole-class discussion could be attributed to the visible pedagogy (Bernstein, 2000) Ms Fong espouses, where her expectations were clearly communicated by way of her selection of congruent mood selections. When she had to discipline her students, she selected imperatives to issue her commands. These exchanges were brief and Ms Fong picked up where she left off with little disruption to the pedagogic discourse and little impact on the teacher-student relationship.

The warm learning environment was further supported by Ms Fong's use of the vocatives 'darling' or 'darlings' a total of 5 times to refer to her student(s). The use of such vocatives is usually reserved for the home context. Referring to her students in such a manner indicates the strong rapport Ms Fong has with her students.

Ms Naima's approach to providing a supportive learning environment for her students was different from Ms Fong. The tone she used with her students was always calm and measured. She used this same tone whether she was praising her students when they answered correctly or when she was disciplining them, providing students with some measure of emotional stability. In maintaining the calm learning environment when disciplining them, Ms Naima often used incongruent

mood selections such as issuing a command using the declarative mood: “Maybe you can sit down” when she instructed students to sit down instead of the imperative mood. This stability was also maintained by virtue of the strong framing exercised by Ms Naima. From the way the students moved from their seats to the floor and the arrangement of the seats on the floor to the way she nominated student speakers as described in the previous section, routines were clearly established and students were well aware of their boundaries. While the learning environment was supportive, it compared poorly to the warm interactions enjoyed by Ms Fong’s students. This was, in part, due to the strict turn taking routine established by Ms Naima, where students were not allowed to take a speaking turn unless they were invited. When they did, they were mostly ignored though there were a few instances when Ms Naima followed up from her students’ unsolicited comments or question. Due to this, the conversation-like interactions in Ms Fong’s lesson were not present in Ms Naima’s. The limited dialogic space accorded to Ms Naima’s students meant that they were unable to spontaneously share their ideas and this affected their learning environment.

Ms Gan’s learning environment was less supportive than that of Ms Fong’s and Ms Naima’s. This had to do with her need to repeatedly manage her students’ behaviours whether it was settling arguments between students, admonishing students for talking to each other or getting students to quieten down. She employed the use of speech and gestures to manage her students’ behaviours including the highly confrontational pointing at students using the prone hand position.

The situation was exacerbated by the lack of constructive interaction that happened after nearly every question that Ms Gan asked. Ms Gan only nominated a student to answer her question after a pause

and during this pause, students would compete for their speaking turn, often speaking over each other and raising their voices just so that they could be heard. The competitive nature of the students impacted negatively on the students' learning environment as the whole class discussion proceeded sporadically, frequently interrupted by Behavioural Management lesson microgenres (see Chapter 5). This is further aggravated by the high incidence of imperatives used by Ms Gan, her use of students' full name to discipline them and the highly confrontational pointing gestures targeted at students. This was indeed an unfortunate situation – many students had ideas to contribute but these were not discussed in a safe learning environment and therefore did not lead to productive discussions. This may mean that many students had the opportunities to speak though they may not be heard. As stated in the last section, Ms Gan's exchanges were necessarily short as the only way to capture students' attention was to continue reading the big book. The relationship between teacher and students can probably be best described as volatile and unpredictable.

Ms Gan's weak framing (Bernstein, 1999) in the arrangement of her students could have also contributed to the negative learning environment. Students were not assigned seats on the floor during the big book reading and so were seated in a haphazard manner. Most jostled for space at the front of the big book. This caused many arguments as students encroached into each other's' space and led to disciplinary measures by Ms Gan. This showed how the semiotic resource of space could affect the learning environment and ultimately the opportunities for the expansion of dialogic space.

8.2.4 Learning content

'Learning content' in the PETAL framework refers to how teachers can make connections between what students learn and authentic real-life experiences or examples (MOE, 2005b). This could also mean using students' home contexts as a basis for exploring school knowledge. The literature on bridging home-school knowledge is extensive (e.g., Cairney, 2002; L. Moll, Amanti, Neff, & Gonzalez, 1992; L. C. Moll, Amanti, Neff, & Ganzalez, 2005). Teachers who employ "culturally relevant teaching" (Ladson-Billings, 1994) use students' knowledge, past experiences and home culture in their interactions with students in building school knowledge. This would lead to greater student engagement as students are emotionally connected to the real-world examples or analogies given by teachers (Renzulli, Gentry, & Mahler, 2004).

One way that teachers bridge this gap is by connecting their or their students' experiences to the texts used in their lessons (McCarthy, 2000). In this research, the three teachers used their experiences or experiences that they perceived their students would have in explaining words or events found in the big books. Ms Fong often used analogies to explain the meaning of words that students were unfamiliar with or events in the big book. When explaining how a greedy character was never satisfied with what she had, Ms Fong drew parallels between the character and a typical scenario that students would be familiar with – a child who wanted a game console but wanted another type when his mother bought him the one he asked for in the first place. The game consoles, PSP and Nintendo, are common brands in Singapore and it was reasonable to expect students to be acquainted with these brand names. The deliberate analogy was used by Ms Fong to explain a crucial point about the greedy nature of the fisherman's wife that would eventually lead to her downfall.

Although dialogic space contracted while Ms Fong was relating the analogy, I would argue that the benefit of linking students' home contexts, in this case, the familiar narrative of a child wanting more than what is given, to the character in the big book may possibly outweigh any negative impact from such a contraction.

Ms Fong also made the effort of using a hand puppet, a fish, as a way to lead students into the big book reading, since one of the main characters of the big book is a magic fish. This served as a hook to engage her students. This was apparently successful as students were excited when Ms Fong first took out the hand puppet, which represented an artefact that was more likely to be found in the homes of students rather than in the classroom. By bringing it into the classroom as part of the SBA lesson, Ms Fong took something that was familiar to students as a way to lead into the unfamiliar – the new big book that they were reading for the first time.

Ms Naima made little reference to students' past experiences or their home culture when she was reading the big book. She asked students about what would happen if they left their toys scattered on the floor; asked for the word we use in Singapore to mean closet and highlighted similarities between how the main character tiptoed to the closet and how the students tiptoed to the floor. Ms Naima also resisted students' interpretation of the nightmare as this contrasted to the nightmare in the big book. Ms Naima's reluctance to embrace her students' interpretation of nightmare seemed to stem from the need to meet curricular objectives. Ms Naima did, however, use a short video clip of the popular movie *Monsters Inc* at the beginning of the lesson as an introduction, connecting students' past experience to the lesson. The

monsters in the video clip were similar to the nightmare in the big book and thus acted to frame students' perceptions of the nightmare.

Out of the three teachers, Ms Gan made the least attempt at connecting students' prior experience to school knowledge. The only two times she did this was when she asked for the equivalent of the wildlife park in the Singapore context to ensure that students understood the meaning of the phrase as used in the big book and when she drew comparisons between the teacher in the big book to the teachers in their school.

It can therefore be concluded that in this sample Ms Fong took the greatest advantage of students' home contexts and past experiences in building knowledge together with her students than the other two teachers. Bringing in students' experiences from outside of the classroom allows Ms Fong to not only build warm relationships with her students but also to show that the fluidity of knowledge between the school and home environment; evident of a weak classification of knowledge (Bernstein, 1990). As such, Ms Fong's students had more opportunities to relate their out-of-school knowledge to what they were reading in the big book; thereby deepening their understanding of the events in the story.

8.3 Contributions, limitations and further research

This section will be divided into three parts: firstly, to show how this research study has contributed to the current understanding of multimodal classroom discourse; secondly, to consider the limitations of the study and lastly, to offer suggestions for further research.

8.3.1 SF-MDA approach to classroom discourse

The decision to analyse the data in this thesis using the SF-MDA approach was predicated on the belief that all communication employs the

use of a variety of semiotic resources and this extends to the classroom as well. Multimodality in education has received much attention since the turn of the millennium (Bourne & Jewitt, 2003; Gana et al., 2015; Guo, 2004; Jewitt, 2005; C. Jewitt, 2009a; Jewitt & Kress, 2003; Jewitt et al., 2001; Kress, 2000; Kress et al., 2005; Kress et al., 2001). The employment of the different semiotic resources is apparent during SBA lessons when teachers use speech, words and images in the big books, the pointers to point at these semiotic resources or the students and gestures to act out the words or images in the big book. The complex multimodal learning environment experienced by students provided rich video data for this analysis.

In Section 2.27 of this thesis, the term ‘multimodal literacy’ (O’Halloran and Lim, 2011) was explained as having two dimensions – one refers to the range of skills needed by students to produce and access multimodal texts and the other refers to the multimodal learning experience in classrooms where the teachers communicate using a variety of semiotic resources in achieving their curricular goals. The former is being addressed in this research in Chapter 5, where the category Multimodal Instructional Discourse or MMID was identified in the Lesson Microgenres to draw attention to the instances where teachers either explicitly teach multimodal literacy skills (e.g., “Look at his facial expression”) or asked questions relating to the skills required to read or view multimodal texts (e.g., Can you see can you see from the picture the teacher’s stomach?). A large proportion of the MMID comprise questions about the images in the big books with very little explicit teaching of multimodal literacy skills. At one point during the lesson, Ms Gan asked students to guess the source of the rumbling noises heard by the class in the big book. The big book at this time showed a picture of the main

character, a girl, with squiggly lines at the sides of her stomach. When a student suggested that it was from the teacher's stomach, Ms Gan responded, "What makes you say that it's from the teacher's stomach? Can you see can you see from the picture the teacher's stomach? No, right?" while opening her palm in a supine position and tapping the picture in question as she said 'can you see' followed by placing both hands down at her sides. The dialogic space contracted from the first question as Ms Gan selected the option [contract; disclaim; counter] ("What makes you say that it's from the teacher's stomach?") to cast doubt on the student's answer before giving privilege to the illustrator voice by selecting [contract; proclaim; endorse] ("Can you see can you see from the picture the teacher's stomach?") followed by [contract; disclaim; deny] ("No, right?"). The dialogically expanding gesture of the open palm, supine hand position was, therefore, at odds with the contraction of dialogic space of Ms Gan's speech. When considered as a 'multimodal phenomena', it was clear that dialogic space was contracted rather than expanded. Ms Gan was not expecting a response from students as she asked the questions in quick succession – there was no opportunity for students to give their responses. More importantly, by contracting the dialogic space and setting up the question "Can you see can you see from the picture the teacher's stomach?" as though this was information that was shared by all students, Ms Gan did not explain the link between the absence of the teacher's stomach in the picture and how this invalidated the student's answer that the rumbling noise came from the teacher's stomach. She also did not draw students' attention to the squiggly lines at the sides of the girl's stomach in the image to show that it was the girl who was making the rumbling noises which originated from her stomach. This lack of attention to multimodal literacy skills is present in the other two lessons as well. Ms

Fong did not capitalise on a situation when students in her class could not correctly identify the facial expression of the fisherman in the image of the big book. While the first question served to expand dialogic space “Okay, how does he look to you?” this narrowed as she continued to list a range of possible feelings for students to choose from “Happy? Sad? Moody? Grumpy? Angry?” She accepted two answers ‘tired’ and ‘happy’ after rejecting ‘scary’ and ‘nothing’. This contracted the dialogic space – in accepting and rejecting the answers, she did not explore students’ thought processes and so did not attempt to understand what contextual clues students relied upon in coming up with their answers. This is crucial in building students’ skills in reading images.

That Ms Gan and Ms Fong did not explicitly teach students how to ‘read’ images could be due to their lack of knowledge in the area of multimodal literacy skills or the lack of importance accorded to such skills. Because of the constraints of time, teachers often had to choose what to focus on during their lessons. Even though multimodal literacy skills are part of the Skills, Strategies, Attitudes and Behaviours in the 2010 English Language syllabus as shown in Chapter 1, the two teachers made little reference to these skills even when it was apparent that students were not successful in interpreting the images in the big book.

Ms Naima’s students seemed to be proficient in ‘reading’ the images as they provided the correct answers to Ms Naima’s questions about the images. As mentioned earlier, one reason could be the kinds of questions Ms Naima chose to ask her students – low-level closed questions that did not require deep thinking. When questions required students to infer, Ms Naima narrowed the scope of the possible answers by asking a series of questions that became progressively more specific or by combining the semiotic resources of speech and gesture – asking the

question while hinting at the answer by pointing to the image in the big book. Ms Naima similarly did not teach multimodal literacy skills explicitly.

The second way of looking at 'multimodal literacy' relates to how teachers combine the various semiotics resources during their lessons. In attempting to understand what goes on in the classrooms during whole class discussions, Kress et al. (2001) proposed we need to look beyond the semiotic resource of speech. Heeding this call, this research considered the semiotic resources of speech and gestures through the appraisal analysis and speech function analysis. From the findings, it is clear that both of these are critical in examining how dialogic space expanded or contracted during teacher-student interactions.

One outcome arising from the SF-MDA approach to this analysis is the ability to analyse semiotic resources that are 'silent'; that is, semiotic resources other than speech, during the whole class discussion. In examining the teacher-student interactions, the top-down approach for the appraisal analysis showed that teachers managed dialogic space using speech and gestures using the frameworks by Martin and White (2005) and Hood (2011) respectively and the bottom-up approach in analysing the gestures. When the speech and gestures work together, both semiotic resources were analysed as either dialogically expansive or contractive. This is also known as 'multimodal cohesion'. An example of this occurred when Ms Fong asked the question, "So where are they staying now?", opening her palm upward in a supine hand position. There is multimodal cohesion as the supine hand position and the question work together to mean the expansion of dialogic space. When the semiotic resources of speech and gesture do not work together though, there is discord. This happened quite often during Ms Naima's lesson where the meanings constructed from her speech and her pointing gesture were in conflict. One

instance was when she asked a dialogically expansive question, “Ah, what happen? What happened?” but this was accompanied by her pointing gesture at a lamp in the image. This effectively contracted the dialogic space as Ms Naima hinted at students the expected answer. If one were to only analyse the semiotic resource of speech, this would not be treated as a multimodal phenomenon and would have been erroneously analysed as dialogically expansive.

Another way that the semiotic resources of speech and gesture failed to work together is when Ms Fong asked the question, “Are you sure, RV?” to cast doubt on a student’s answer and denying him of his voice, thereby contracting dialogic space. This was accompanied by the supine hand position, indicating an expansion of dialogic space. The lack of multimodal cohesion is problematic when one considers an alternative – Ms Fong could have responded with a ‘no’ and this would have resulted in a more pronounced contraction of dialogic space as compared to “Are you sure, RV?”. This is because the former closed the dialogic space without anticipating a response from the student involved – if a response was given, it would be incongruent. In the Appraisal analysis, ‘no’ is analysed as [contract: disclaim: deny]. The latter, however, placed the student in a position where he was expected to give a response by reconsidering his initial answer. In the Appraisal analysis, this would be analysed as [contract: disclaim: counter]. In both cases, the dialogic space was contracted but the degree of contraction in each case was not captured. The supine hand position accompanying “Are you sure, RV?” could then be taken as a way for Ms Fong to communicate this limited expansion of dialogic space (since she was giving space to student voice) within the boundaries of the contracted dialogic space. The lack of multimodal cohesion highlighted the need for this multimodal phenomenon to be re-

analysed. Considering only the teacher's speech would have stopped the analysis at contraction of dialogic space and would not have profited from the insight described.

The inclusion of the semiotic resource of space in this research provided insights into how the teachers' uses of space impact on their pedagogic discourse. Section 8.2.2 above describes how Ms Naima closed off the dialogic space of AV by positioning him physically apart from his peers adjacent to her seating position. This impacted on his learning experiences and positioned him as a passive learner – one who receives knowledge without participating in the on-going discussion. In Ms Gan's class, the fact that she stood for the whole lesson placed her not only physically but also socially further away from her students compared to the other two teachers. Her weak framing (Bernstein, 2000) meant that students did not have assigned seats on the floor, resulting in students choosing their own space to occupy. The students' haphazard seating positions caused many arguments, disrupting the lesson on many occasions when Ms Gan had to discipline the students.

It is clear that the micro-analysis of classroom discourse using the SF-MDA approach across the three lessons yielded valuable results in understanding how teachers extend their interactions with students using the semiotic resources of speech and gesture.

8.3.2 Possible contributions to teacher training

For both dimensions of 'multimodal literacy', structured training programmes for teachers focussing on the importance of multimodal literacy skills and how to teach these skills could help teachers to be more confident and knowledgeable in this area. The example of Ms Gan's lost opportunity to teach such skills Section 8.3.1 could perhaps lead to a more

productive lesson had she known how to explain the relationship between the image and the written words in the big book. The rumbling sound as depicted in the written words is represented in the image by the squiggly lines at the side of the girls' stomach, providing evidence that the sounds came from the girl's stomach. Similarly, for Ms Fong, showing students how the facial expressions of the characters complement the written words in the big book would result in a deeper understanding of the story. Attending professional development training programmes with a focus on multimodal literacy skills, such as the relationship between the images and the written words in big books, could benefit teachers in this regard.

Separately, another series of training programmes could be designed to raise awareness about how teachers use their 'embodied' semiotic resources such as speech and gesture in opening dialogic space in their interactions with students. This could lead to a more conscious and pedagogically productive use of these resources for the benefit of students' learning, where students' thinking is stretched and avoid instances where teachers use semiotic resources that do not align with each other, potentially causing confusion amongst students.

Nystrand (2006) cautioned against training programmes where a 'mechanistic' view of instructional strategies leads teachers to believe that a particular strategy would have a particular effect on students' learning. He argued that classroom discourse, and I would extend this to multimodal classroom discourse, should be understood as "organically related to the epistemic environment" (Nystrand, May 2006, p. 393). To this end, providing teachers with the knowledge of, for example, opening dialogic spaces through speech and gestures is insufficient. Involving teachers in reflecting on their own teaching through the use of video would result in teachers connecting theory with practice, resulting in a far more impactful

training programme (see e.g., Dawson, Dawson, & Forness, 2001; Powell, 2005; Tripp & Rich, 2011). This could be followed by having conversations about examples extracted from the video together with transcripts with peers, which would make excellent training materials (Lee, 2016).

8.3.3 Contributions to theory

Following the work of Christie (2002), the theoretical construct of Curriculum Macrogenre provides a good foundation in making selections from the original data set of 10 lessons. The aim here was to select lessons that were in the same microgenre to ensure that comparisons made are valid. The linear macrogenre proposed by Christie has been adapted to take into consideration the stages found in STELLAR lessons. This facilitated the identification of the stages found in the 10 lessons and allowed for the clustering of lessons in the same macrogenre. The curriculum microgenre was further categorised into lesson genres which were then aligned to the phases in STELLAR. Based on this, the three lessons chosen were at the phase of SBA1 when teachers introduced a new big book to students and where the curriculum objectives were the same – reading for understanding and enjoyment

Another contribution is the expansion of the instructional discourse to include multimodal instructional discourse in the registerial analysis for 'field' as seen in Chapter 5, Section 5.3 where instructional discourse that focusses on multimodal literacy skills in developing students' skills in producing or accessing multimodal texts. This is required to determine whether teachers taught or drew students' attention to such skills. The findings showed that there was minimal attention to multimodal literacy skills and this could have impacted on the students' understanding of the big book.

In adopting the SF-MDA approach to dialogic analysis, the top-down and bottom-up approaches were carried out. In the top-down approach, the framework by Hood (2011) was used to analyse dialogic space during the three lessons with the view of evaluating it for suitability for use in the local context. While Hood designed the framework based on data from lessons set in the context of higher education in Australia, the analysis in this thesis shows that it may not be suitable when applied to the lower primary school. Hood's framework focussed mainly on gestures of the hands and this is not sufficient to describe the rich, multimodal classroom contexts found in the lower primary. The availability of the semiotic resources of the images and written words in the big book further adds to the complex nature of the analysis as these opened up the multitude of ways for which teachers could weave these semiotic resources meaningfully in addition to those that are 'embodied' such as pointing. As such, the bottom-up approach, following Lim (2011), was used to identify other gestures used during the lesson that could be used by teachers to manage dialogic space. It was found that teachers used the pointing gesture to point to either the written words or images in the big books in orchestration with their speech in order to reduce the scope of answers available to students thereby, contracting the dialogic space. The teachers also did not use the open palm supine position to expand dialogic space and the open palm prone position to contract dialogic space consistently. Ms Naima, especially, did not rely on these gestures to manage dialogic space during her interactions with her students as she kept her hands on her lap most of the time. This is contrasted with Ms Gan, who used the prone position to contract dialogic space about five and six times more frequently when compared to Ms Naima and Ms Fong respectively; and used the supine position to expand dialogic space about

three and nine times more frequently than Ms Fong and Ms Naima respectively. It remains unclear if this is due to individual differences between the teachers in their propensity for using gestures or, as pointed out earlier in Section 8.2, Ms Gan's difficulty in managing student behaviours. Nevertheless, this would be worthy of further research.

Based on the findings as described in this section, the SF-MDA approach to dialogic analysis has proven to be beneficial in understanding how teachers manage the dialogic space during whole class discussions. Analysing the words alone would have given us only a partial understanding of such interactions.

8.3.4 Contributions to research in the local context

The study of classroom discourse in the local context with its varied focal points attends only to the semiotic resource of speech. Interactions between teachers and students are not the main focus of recent research and to be fair, what else could there be? Interaction patterns are persistently IRF in nature, with teachers asking closed questions and students answering minimally (Office of Education Research, December 2009) and are starkly similar to reports on classroom discourse in the Western parts of the world (e.g., Alexander, 2003; Cazden, 2001).

Vaish and Shegar (2009), in their study of scaffolding in a Primary Five English classroom, however, found that the teaching and learning in this classroom adopted what they described as an Asian pedagogy. They assert that the use of well-structured problems, that is problems with one solution, inhibited the kind of interactive discussion that would develop students' language. The exam-centric and the varying linguistic diversity of students also played roles in the kinds of scaffolding that teachers provided to students – more spontaneous scaffolding is required for

students to produce extended talk. These factors contribute to an Asian pedagogy where “knowledge is not co-constructed but rather a unique enunciative space where knowledge is traditionally transmitted through the conduit of language” (Vaish & Shegar, 2009, p. 88). This transmission of knowledge is also evident in the work of Sripathy (1998) where interactions were mostly convergent as described earlier in Section 3.4.3 and in the present research, during Ms Gan and Ms Naima’s lessons. Teo (2013) offered a refreshing look at teacher-student interactions in his study of a Secondary Three Social Studies lesson, where the teacher practised the tenets of dialogic teaching in getting students to share their knowledge and to engage in discussions with each other. This is complemented by her deft and skilful negotiating of the dynamic whole-class interactions to ensure that students experience a cognitively challenging and enriching discussion. Interactions in this classroom were significantly different from those in the primary school classrooms. This begs the question of whether the developed language abilities of the secondary school students allowed them to express and articulate their thoughts in order to facilitate such interactive and dialogically expansive discussions.

Given this, the teacher-student interactions in Ms Fong’s class could be surmised as being the closest to that reported in Teo (2013). While Ms Fong did not encourage students to speak to each other, there were moments when students had the floor to share their experiences with their peers. She also engaged students in dialogically expansive discussion when she probed students for further clarification and asked students to justify their answer. Granted, the discussion that ensued in Ms Fong’s class was less sophisticated than the one in Teo’s study but this is to be expected of students at the lower primary level. Certainly, it is apparent that Ms Fong was taking a step in the right direction in adopting

a less authoritarian stance and thus, encouraging students to participate actively in the on-going discussion.

The research described in this section, apart from the present research, has so far been limited to the semiotic resource of speech. The foray into multimodal approach to classroom discourse has yet to gain momentum with the exception of the work of Lim (2011) and Lim, O'Halloran and Podlasov (2012) set in the context of a local junior college although the focus was primarily on semiotic resources other than speech. The current research adds to this body of work by investigating multimodal classroom discourse at the level of lower primary based on the semiotic resources of speech, gesture and space. It is also worth mentioning that while the local multimodal research centres on multimodal literacies, new literacies and production and consumption of multimodal texts (see Chapter 3), this research is concerned with the dynamic nature of teacher-student interactions and how the different semiotic resources are used by teachers. The productivity of such an approach has been discussed in section 8.3.1.

8.4 Limitation of study

The time-consuming, microanalysis of video data makes it necessary that the data be kept to a manageable size. In this case, the Main Lesson Genre phase of three SBA lessons in three lower primary classrooms were chosen. Even though this is considered small, the rich data obtained from this data set allows for the minute by minute analysis of speech and gesture to reveal interesting findings. This small data set also presented a limitation in that the findings cannot be generalised to the general population; it is limited only to the lower primary classrooms in the Singapore context with its unique mix of student profiles of differing

proficiencies in the English language and the mostly authoritarian style of teaching. Further, the findings are mostly from the perspective of the teacher; that is the teachers' use of the semiotic resources of speech and gestures. This is necessary to preserve the validity of the findings – only what could be observed in the video recording was analysed. The placement of the video camera at the back of the classroom during the recording process placed the teacher as the central figure. Throughout the thesis, no claims could be made about the students' perspectives unless their actions (for example, raising their hands) could be clearly seen from the video recordings. This, therefore, limits the generalisability of the study further as the focus was only on the teachers. The value of this study lies in the particular; and in giving a thick, rich description of the semiotic resources used by the teachers that would have been otherwise difficult to achieve by one researcher.

8.5 Further research

The small sample size of the present research meant that the findings could not be generalised to the population. Having explored the semiotic resources of speech and gesture in SBA lessons, it would be fruitful to include other semiotic resources such as voice quality and intonation (see e.g., van Leeuwen, 1999), the usefulness of which was shown in the analysis of Ms Naima's interactions. Scaling up the research to include a bigger set of data would also help to determine if the variation in the number of times the three teachers used the supine and prone hand gestures was due to individual differences and to explore other ways that teachers may use gestures to manage dialogic space in their lessons.

8.6 Final comments

In this section, I take a step back and make some final comments about the ideas in this thesis. Expanding dialogic space in the classroom allows for extended interactions between teachers and students. As stated earlier, this is possible through the use of speech and gestures; and to a certain extent, space as this has implications in the kinds of interactions that happen in the classrooms in teacher-student relationships.

I surmise that at the heart of the findings in this thesis is the relationship between teachers and students and the relationship between students forged by teachers. A dialogically expansive discussion would require teachers to build rapport with students in a warm and supportive environment so that students are not afraid of speaking up or making mistakes. This was the kind of environment that existed in Ms Fong's classroom and I was thoroughly impressed with how the students were articulate in their requests for definitions of words and in answering her questions. More impressive, though, was how students listened to each other and to Ms Fong without interrupting and spoke only when the other speakers have finished their turns. Seeing lower primary students conducting themselves in this manner was indeed an eye-opener. The kind and supportive relationship forged by Ms Fong in her classroom is admirable and made the conversations she had with her students lively and uninhibited whilst still achieving curricular goals and maintaining good discipline.

Forging such relationships is a tall order. Some teachers, like Ms Naima, may prefer to exert control to maintain discipline in their classrooms and hence solidifying the relationship to be distant and authoritative. Ms Naima had rules for every phase of the Lesson Genre

and made incongruent mood selections when disciplining her students. Ms Gan, on the other hand, was also authoritarian but had to resort to raising her voice and making pointing gestures in disciplining her students and getting on with the lesson by reading the big book to maintain discipline. The kinds of relationships that teachers forge with their students impact on the kinds of teacher-student interactions that unfold during lessons (Teo, 2013).

Policy changes, such as the STELLAR programme and the 'Teach Less, Learn More' initiative (see Chapter 1) in the last two decades are testament to MOE's efforts to making classrooms conducive and supportive to "improve the quality of interaction between our learners and teachers in the classroom and beyond, to bring about greater engagement in learning" (MOE, 2005a, para 7). Such interaction is evident in Ms Fong's lesson but to a lesser extent in the other two lessons. It is apparent that a more egalitarian approach to teacher-student relationship is required for such 'quality interaction' and this would involve a change of mind set for teachers. There is an urgent need to see students, even lower primary ones, as capable of being agents of their own learning and therefore, can contribute valuable insights during, for example, whole class discussions.

During the course of writing this thesis, I have always been keenly aware of the challenges faced by the teachers as they carry out the whole class discussions while managing dialogic space. Analysing the video lessons from a position of an observer, it is easy to point out the flaws made by the teachers and what they could have done instead. In order to grow the scholarship on teaching and learning, I have come to realise that researchers and teachers should also build a relationship that is warm and supportive so as promote dialogically expansive interactions. In this way, a trusting and mutually beneficial relationship could be forged for the

betterment of student learning and teacher practice. The collaborative training sessions suggested in Section 8.3.2 embodies the said values that would mutually benefit teachers and researchers for the advancement of knowledge in student learning.

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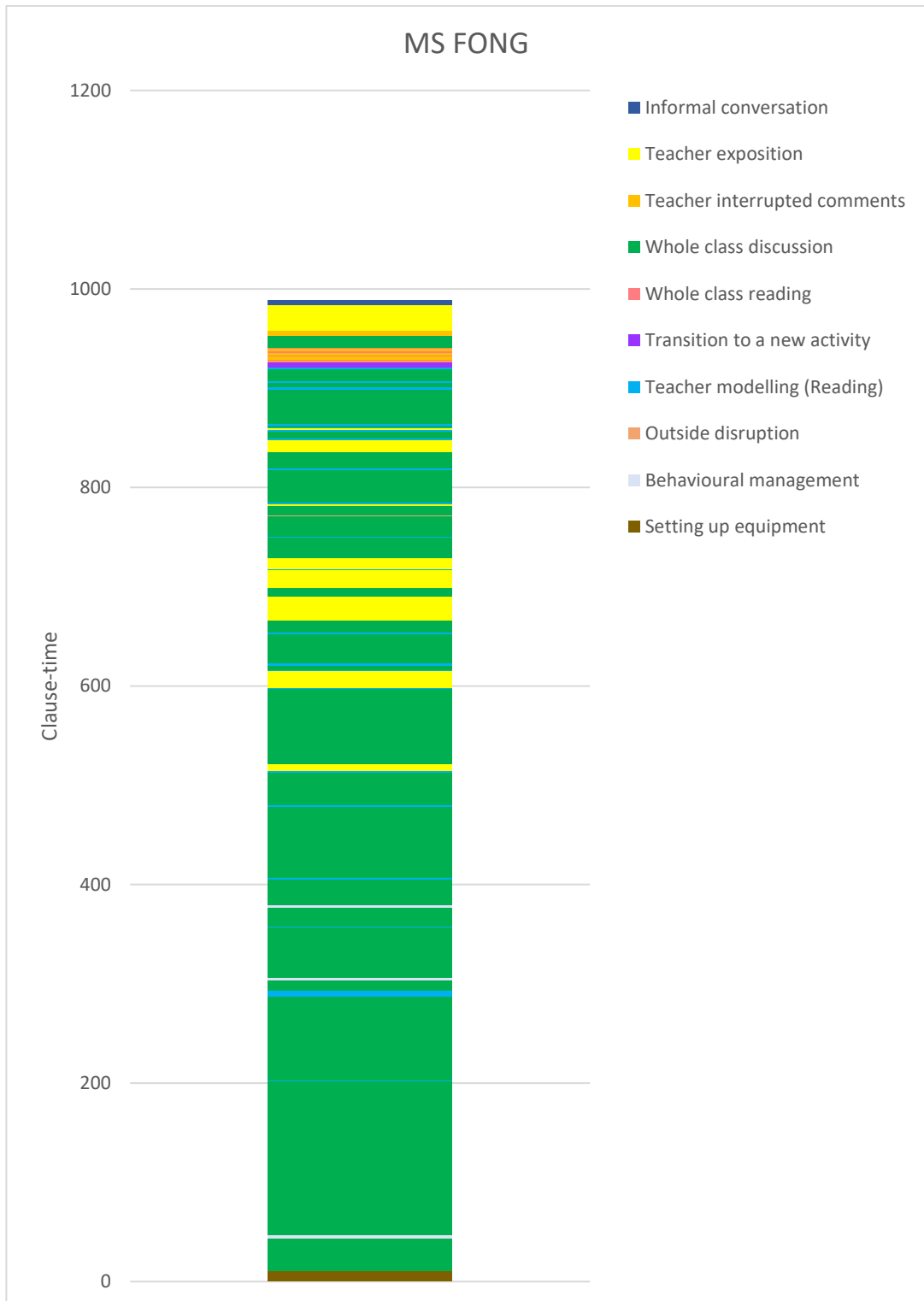
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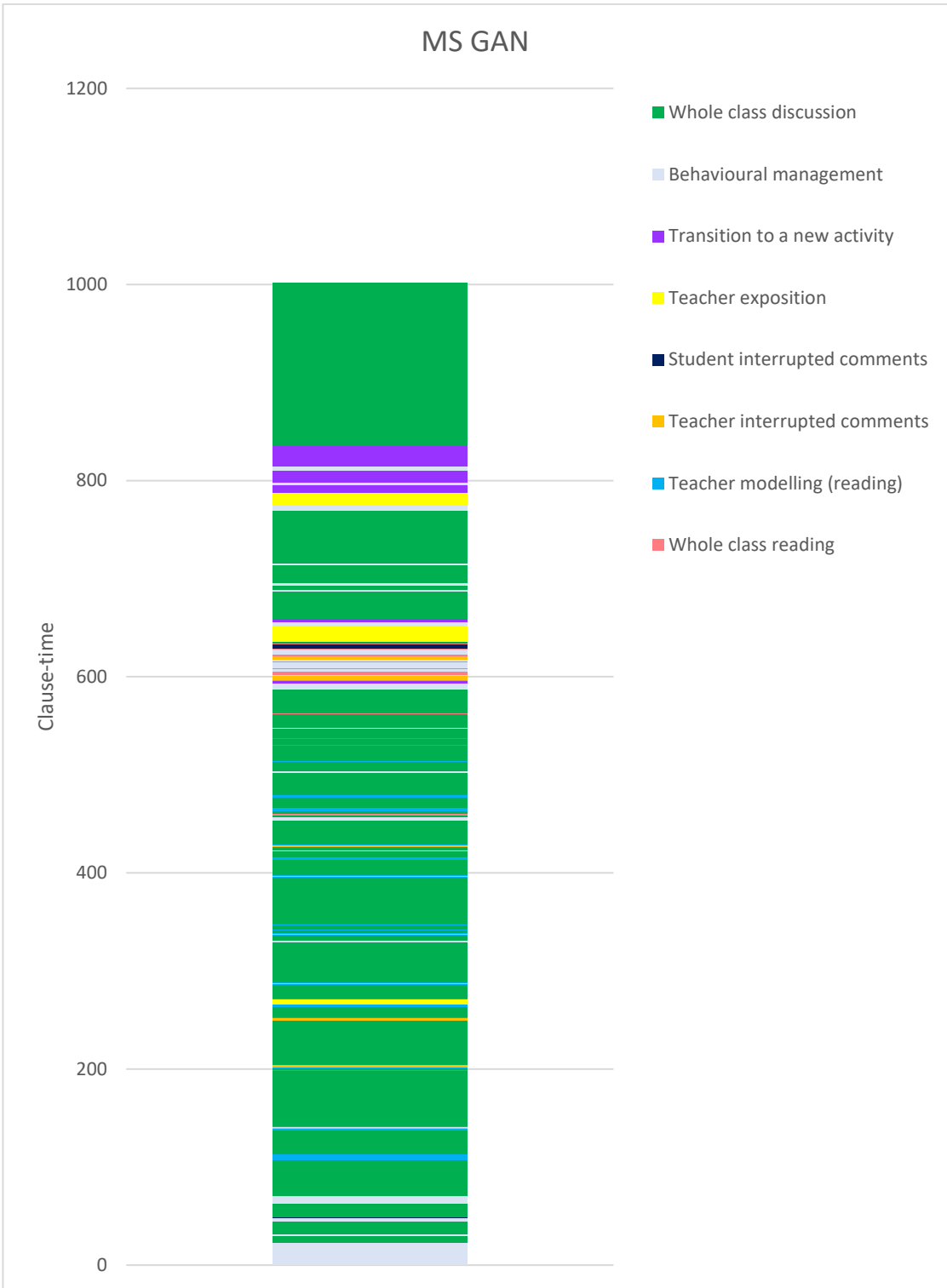
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APPENDICES

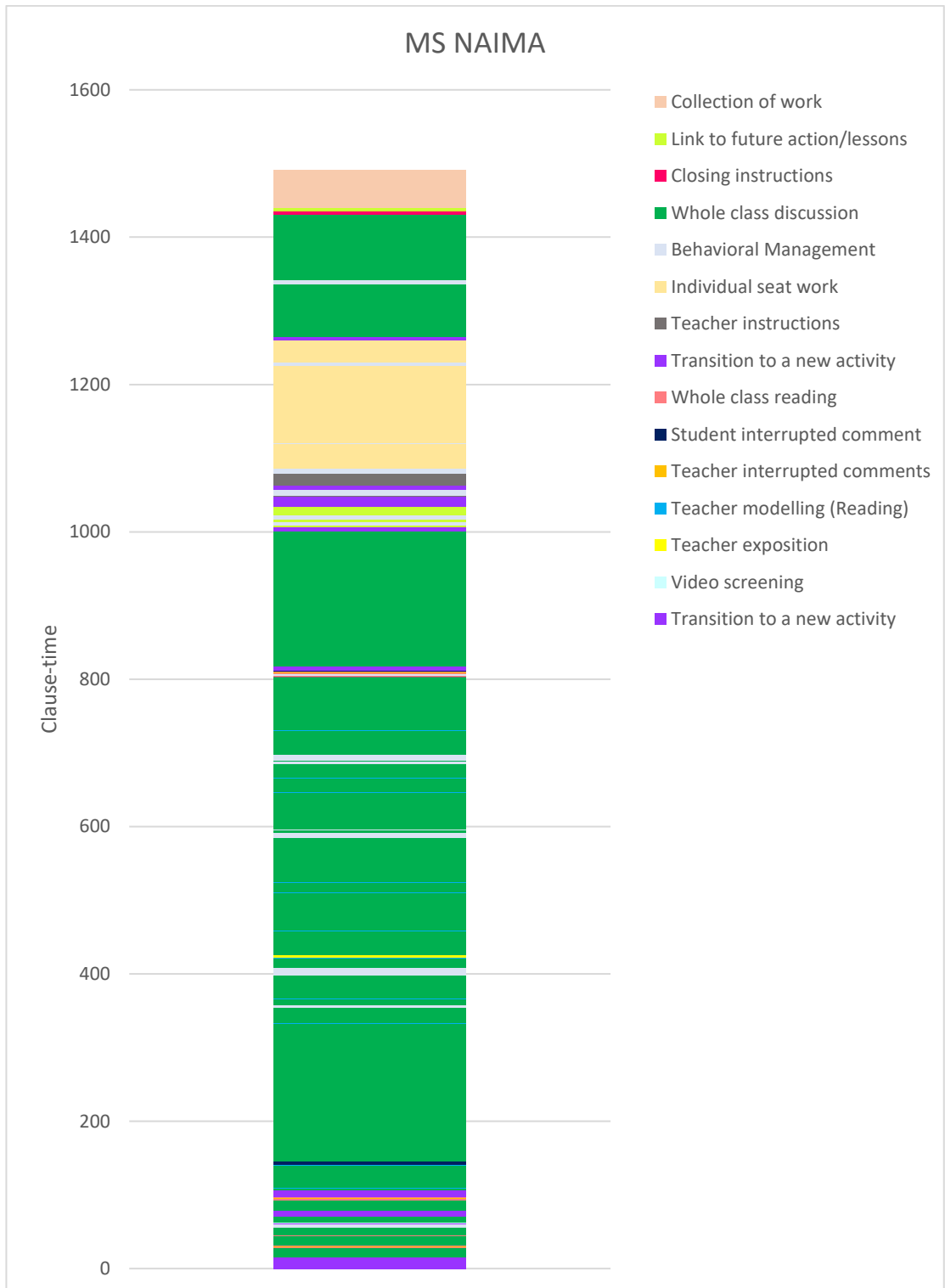
Appendix 1: Lesson Genres in Ms Fong's lesson



Appendix 2: Lesson Genre in Ms Gan's lesson



Appendix 3: Lesson Genre in Ms Naima's lesson



Appendix 4: Sample of Lesson Microgenre analysis of Ms Fong's lesson

Clause Number	Lesson Microgenre	Field	Tenor	Mode (Semiotic Resources / Modality)
Pre-Lesson Genre				
1 - 11	Setting up equipment	Getting ready for lesson-organisation of space for lesson. RD is foregrounded.	Status: Unequal Affect: Positive Contact: Bordering between distant and involved Teacher-led, whole class Use of imperatives and use of declaratives to instruct students to get ready for the lesson. Use of the vocative 'darling' to refer to student.	Language/Aural Voice quality/Aural Gesture/Visual
Preliminary Lesson Genre				
12-44	Whole Class discussion	Teacher taking on a character found in the Big Book and introducing the Big Book through the use of a puppet.	Status: Equal Affect: Positive Contact: Sporadic Teacher-led, whole class	Language/Aural Voice quality/Aural

		ID is projected by RD.	Use of subject 'we' to signal group solidarity in achieving shared goals, use of interrogatives to seek information.	Gesture/Visual Medium: Puppet
Interpolated Lesson Genre				
750-761	Whole Class Discussion	Discussion about the plot of the story. ID is projected by RD.	Status: Unequal Affect: Positive Contact: Daily Teacher-led, whole class Use of declaratives to explain the events in the story; use of incomplete declaratives to seek for information.	Language/Aural Language/Visual Voice quality/Aural Gesture/Visual Images/Visual
762-769	Whole Class Discussion	Discussion of images within the big book. ID and MMID are projected by the RD.	Status: Unequal Affect: Positive Contact: Daily Teacher-led, whole class Use of interrogatives and incomplete declaratives to demand for information;	Language/Aural Voice quality/Aural Gesture/Visual Images/Visual

Interpolated Lesson Genre				
770	Outside Disruption	Disruption from outside - students moving past the class RD is foregrounded.	Status: Unequal Affect: Neutral Contact: Unknown Use of imperative to direct students' action; use of vocative 'darling' to refer to the students	Language/ Aural
Main Lesson Genre				

Appendix 5: Sample of transcript and transcript conventions

Clause	Speaker	Discourse
1	Ms Naima:	Alright.
2		This is the book we're going to read today.
3		AV will stand here
4		and still help me okay.
5		This is the new book we are going to read today.
6		Look at the cover.
7		Look at the cover.
8		I know you already read it.
9		There's a nightmare in my closet.
10		But what do you see on the cover of this book?
11		EIC.
12	EIC:	A monster.
13	Ms Naima:	Okay EI says she sees a monster.
14		The monster is in here.
15		But what room do you think this is?
16		NCH.
17	NCH:	Bedroom.
18	Ms Naima:	In a bedroom.
19		How do you know that it's a bedroom?
20	NCH:	Because.
21	Ms Naima:	BNA.
22	BNA:	Because I see the closet is inside the (unclear).
23	Ms Naima:	Okay Benny says [[because there is a closet and most closets are in the bedroom]],

Transcription conventions

Transcriptions are produced from video files.

Pseudonyms are used throughout the transcripts. For the three teachers, corresponding pseudonyms were created: Ms Fong, Ms Gan and Ms Naima. The students' names are shortened to three letters randomly selected from their original names e.g., NAA and HTB.

Questions, which are said in a rising tone, are marked with a question mark (?) while sentences which are said in a falling tone are marked with a period (.).

Overlapping speech, where two speakers speak simultaneously, are shown in double rounded brackets: ((asdf)).

Unclear speech is indicated as such: (unclear).

Drawn out speech is spelt with multiple vowels e.g. pleeeeeeease.

Parts of the big book that are read either by teachers or students are written in italics e.g., *Each day as she mended the nets stitch by stitch, she sighed and she cried. I love to be rich. She sighed and she cried.*

Appendix 6: Screen-shot of analysis window of the Multimodal Analysis software

The screenshot shows the Multimodal Analysis software interface. At the top, there are three callout boxes: 'Video frame' pointing to the video player window, 'Transcription of the lesson with the time stamp' pointing to the transcription window, and 'Filmstrip – screen shots of video clips' pointing to the filmstrip area. The interface includes a 'Player Window' with a video frame, a 'Transcription' window with a list of timestamps and text, and a 'Film Strip' area with a video frame, a sound strip, and a dialog strip. The dialog strip contains various semiotic resource categories like PHASE, PHYSICAL LOCATION, GESTURE_NEW BB, and GESTURE_OTHER. A red vertical line is positioned over the video frame and the dialog strip. At the bottom, there are three callout boxes: 'Different semiotic resources' pointing to the dialog strip, 'Blocks are inserted according to the colour (blue for teachers and red for students) and the duration of time of the speaker's turn.' pointing to the colored blocks in the dialog strip, and 'The red line denotes the time line of the video. It moves as the video plays.' pointing to the red vertical line. A fourth callout box at the bottom center says 'Annotations of the different semiotic resources by inserting' pointing to the dialog strip.

Video frame

Transcription of the lesson with the time stamp

Filmstrip – screen shots of video clips

Multimodal Analysis Video - Thesis
File Edit Visualization Analysis Help

Scherman

Player Window

Transcription

- 00:01:25 : Ah-huh. See? We got my best friend. Froggy's still at home.
- 00:01:30 : Yes, froggy's still at home. But today I have Fishy. We haven't seen him for a long time.
- 00:01:38 : What colour am I?
- 00:01:40 : Orange.
- 00:01:41 : Ah-huh.
- 00:01:42 : Forgot the goldfish.
- 00:01:43 : Yes SZ, when we go through colours, you forgot the goldfish.

Selected system choices

Description

Available system choices

Enter text

1:01:54:00:46:00

100%

Film Strip

Sound Strip

Dialog Strip

PHASE

PHYSICAL LOCATION

GESTURE_NEW BB

GESTURE_OTHER

Free strip

Different semiotic resources

Blocks are inserted according to the colour (blue for teachers and red for students) and the duration of time of the speaker's turn.

The red line denotes the time line of the video. It moves as the video plays.

Annotations of the different semiotic resources by inserting

Appendix 7: Sample of Excel Sheet imported from Multimodal Analysis Video for the analysis of gestures of Ms Gan's lesson

Analysis	Tab	System Name	Body part	Hand gesture	Absolute Start Time	Absolute End Time	Absolute Duration
the growl	Teacher	GESTURE_OTHER	Hand	Act out word	0:01:12	0:01:13	0:00:01
the growl	Teacher	GESTURE_OTHER	Hand	Act out picture	0:02:24	0:02:25	0:00:01
the growl	Teacher	GESTURE_OTHER	Hand	Act out word	0:02:27	0:02:28	0:00:01
the growl	Teacher	GESTURE_OTHER	Hand	Act out word	0:03:01	0:03:02	0:00:01
the growl	Teacher	GESTURE_OTHER	Hand	Palm upwards	0:03:30	0:03:31	0:00:01
the growl	Teacher	GESTURE_OTHER	Hand	Palm upwards	0:04:11	0:04:12	0:00:01
the growl	Teacher	GESTURE_OTHER	Hand	Palm upwards	0:04:59	0:05:06	0:00:07
the growl	Teacher	GESTURE_OTHER	Hand	Palm upwards	0:05:08	0:05:09	0:00:01
the growl	Teacher	GESTURE_OTHER	Hand	Palm upwards	0:06:36	0:06:41	0:00:05
the growl	Teacher	GESTURE_OTHER	Hand	Act out picture	0:06:52	0:06:55	0:00:03

Appendix 8: Ethics documents

2009/44/AK

School of Education – Research Ethics Approval Form



The University of
Nottingham

Name: Siti Azlinda Bte Amasha
Main Supervisor: Roger Firth and Philip Hood
Course of Study: PhD
Title of Research Project: A Case Study: Three Teachers' Journeys towards the Multimodal Teaching and Learning of English
Is this a resubmission? No

Date statement of research ethics received by PGR Office: 01.10.09

Research Ethics Coordinator Comments:

Outcome:
Approved

Revise and Resubmit

Signed: 

Name: Dr Alison Kington
(Research Ethics Coordinator)

Date: 02.10.09