Viniti Vaish

Translanguaging in Multilingual English Classrooms

An Asian Perspective and Contexts

With an Introduction by Angel Lin

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Chapter 1
Introduction: Translanguaging and Translanguaging Pedagogies

Angel M. Y. Lin

In this chapter the historical origins of the term translanguaging and the different contexts in which the term has subsequently been developed, contested, and applied will be discussed. The distinctively different theoretical assumptions entailed in the term translanguaging and the traditional terms of code-switching/code-mixing will be delineated. The most recent literature on translanguaging pedagogies will also be reviewed with a view to clarifying the difference between a focus on translanguaging as a spontaneous human communicative phenomenon and a focus on translanguaging pedagogies as a set of design-based principles for scaffolding bi-/multilingual development.

Historical Origins of the Term *Translanguaging*

Cen Williams first coined the Welsh term *trawsieithu* in 1994 (Williams 1994) to refer to a pedagogical practice in Welsh/English bilingual education classrooms where students are asked to alternate languages for the purposes of receptive or productive use. For instance, the Welsh/English bilingual teacher can intentionally use both English and Welsh as the languages of input (e.g., allowing students to read diverse sources of readings on a topic including the student's familiar language–English) while maintaining Welsh (the target language) as the language of output (e.g., requiring students to write up a summary on the topic in Welsh). This practice is seen as having pedagogical functions of using what is more familiar to the students (English) to help them learn what is less familiar (Welsh). Despite traditional language pedagogies that prescribe separation of languages in the language classroom (see review by Creese and Blackledge 2010), the Welsh educators, with a

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strong commitment to a bilingual identity, understood that bilingualism itself was precisely an important tool in the learning and development of bilingual proficiencies. Lewis et al. (2012a) further explained that the term translanguaging referred to using one language to reinforce the other in order to increase the leaner's understanding of, and ability to use, both languages.

Colin Baker, one of the most influential scholars in the field of bilingual education, explained the pedagogical functions that translanguaging can have, "To read and discuss a topic in one language, and then to write about it in another language, means that the subject matter has to be processed and 'digested'" (2011, p. 289). To Baker (2011) translanguaging may have at least four pedagogical functions:

1. It may promote a deeper and fuller understanding of the subject matter.
2. It may help the development of the weaker language.
3. It may facilitate home-school links and cooperation.
4. It may help the integration of fluent speakers with early learners.

A 5-year research project in Wales has found that translanguaging was used as the only or dominant approach in approximately one third of the 100 lessons observed (Lewis et al. 2012b). Lewis et al. (2012b) also found pedagogically effective examples of translanguaging in Welsh classrooms in senior primary education in the arts and humanities subjects. The researchers concluded that in translanguaging, "*both languages are used in a dynamic and functionally integrated manner* to organise and mediate mental processes in understanding, speaking, literacy, and, not least, learning" (2012a, p. 1, italics added).

Since the publication of Ofelia García and Li Wei's seminal work *Translanguaging: Language, Bilingualism and Education* in 2014, translanguaging has gained great momentum in the fields of bi-/multilingual education and language education at large. In international conferences and symposiums in applied linguistics and TESOL (Teaching English to Speakers of Other Languages), for instance, translanguaging has become one of the most frequent topics presented upon. However, this has also aroused some unease about whether this is just another fad in the field of language education and how translanguaging research differs from traditional research under the terms of code-switching, code-mixing, or code-alternation (Lin 2013a, b). In the next section, I shall focus on a discussion of these difficult debates.

"Translanguaging"—How Is It Different from "Code-Switching/Code-Mixing/Code Alternation"?

Code-switching is a term that has been used in sociolinguistics to refer to the alternating use of more than one linguistic code. Both code-mixing (intra-clausal/sentential alternation) and code-switching (alternation at the inter-clausal/sentential level) are usually referred to by the umbrella term code-switching. However, whether we say code-mixing, code-switching, or code alternation, this *code-X*

terminology begs the question of whether language should, in the first place, be conceptualized as discrete "codes" with stable boundaries. The term "code" in linguistics has come from information theory:

> In information theory, a code is a mechanism to pair two sets of signals in non-ambiguous, reversible, and context-free ways. ... Inferential views of communication propose that most understanding depends on the particulars of the relationship between literal contents and contexts… this has led to a disabling of the applicability of the 'code model' to human communication. (Alvarez-Caccamo 2001, p. 23–24)

The recent literature has further supported increasingly dynamic views on language and human communication, seeing language not as static "codes" with solid boundaries but rather as fluid resources in meaning-making practices (Pennycook 2010; Blommaert 2010; Thibault 2011; Lemke 2016). These more dynamic views on language and human communication are captured in the recent blooming of the terms that tend to move away from or at least destabilize the "code" model of language. As Lewis et al. (2012a) commented:

> A plethora of similar terms (e.g., metrolingualism, polylanguaging, polylingual languaging, heteroglossia, codemeshing, translingual practice, flexible bilingualism, multilanguaging, and hybrid language practices) makes this extension of translanguaging appear in need of focused explication and more precise definition. Such varied terms are competitive with translanguaging for academic usage and acceptance. (Lewis et al. 2012a, b, p. 649)

What all these overlapping terms point to is a destabilizing of the "code" model of language. However, how can translanguaging researchers explicate to the general audience and educator who has grown familiar with the traditional ways of understanding bi-/multilingual interactions in terms of code-switching and code-mixing? Superficially, translanguaging might look like code-mixing/code-switching, but the term "translanguaging" does commit the researcher and educator to a much more fluid and dynamic view of language. On this issue, Jim Cummins, one of the most influential scholars in the field of bi-/multilingual education, has made the following comments:

> Languages are clearly social constructions with arbitrary boundaries (e.g., between a 'language' and a 'dialect') but these social constructions generate an immense material and symbolic reality (e.g., dictionaries, school curricula, wars, profits for corporations that teach and test languages, etc.). It is entirely possible to reconcile the construct of translanguaging, which highlights the integrated conceptual/linguistic system through which plurilingual individuals process and use language, with the social reality of different languages, understood as historical, cultural, and ideological constructs that have material consequences and determine social action (e.g., language planning, bilingual programs, etc.). (Cummins 2016, pp. 111–112)

Along with Cummins, translanguaging researchers have made great efforts in explicating the dynamic view of language and argue for moving away from the traditional view of bounded language codes (Otheguy et al. 2015). There, however, remains great puzzlement about the nature of translanguaging. For example, in a symposium on translanguaging in the 2016 AAAL (American Association of Applied Linguistics) Conference, there were recurrent questions from the audience such as: "But we do have different languages! How is translanguaging analysis

different from code-mixing and code-switching analysis? Is it just a new term for old theory?" These questions reflect the steadfast psychological attachment to the idea that there are different separate language systems. There is a need to develop a social semiotic theory that can explain both the psychological reality of "different language systems" and the dynamic nature of human meaning-making and the relationship between the two. In a recent discussion on these issues (Lin and He forthcoming), I draw on Lemke's (2016) recent theoretical framework for understanding issues of speech/action events associated with co-occurrence of different language systems. This framework provides a new theoretical angle on issues of language, languaging, and translanguaging. It questions the traditional view of language, which presumes separate and isolated language systems as *preexisting realities*. Lemke draws on the social semiotics scholar Paul Thibault (2011)'s work and explains that in naturally occurring processes of human meaning-making, trans-/languaging is a *first-order* reality in which multiple linguistic (and nonlinguistic) resources are *distributed* among the participants, media, and artifacts. The multiple linguistic resources are later on reflected upon, codified, reified (e.g., by grammarians and national authorities), and categorized as different languages. In this sense, these different languages are *second-order* realities, not *first-order* realities. People including students, teachers, parents and teacher educators themselves are generally familiar with *second-order* realities. Translanguaging researchers, however, argue that in analyzing the *first-order* realities of actual human meaning-making, this codified view falls short of capturing the dynamic, fluid, and integrated sets of resources that people mobile in doing the moment-to-moment interactions. From this dynamic view of interactions, speakers (including their bodies), linguistic, and multimodal resources, tools, and artifacts (both physical and symbolic ones) are all entangled in the flow of speech/action events (as speech events are almost always embedded in action events) (Lemke 2016). From this dynamic perspective, classroom interactions are unfolding speech/action events across multiple materials, media, and time scales. All participants involved in the speech/action events, including their human bodies and brains, the immediately available artifacts in the environment, as well as their past histories and ongoing developments, are all interconnected, entangled, and coordinated to enable the speech/action events to unfold in the dynamic material flows of matters, energy, and information that encompass utterances and variations along multiple historical/time scales. Lemke further explicates this dynamic view of human interactions using his metaphor of "envelopes":

> History is not just something which existed in the past and does not exist materially now. Past events, past participations, past unfoldings, past undergoings, leave their traces in material mediums including human bodies, arrangements of furniture, wear and tear, habit formation, action tendencies, dispositions, etc. In many cases envelopes of prior events leave traces which make it more likely for new instances to fit within those envelopes. This is the basis of what we call learning, habit, and *habitus*. But these are not phenomena internal to individual organisms. They are in all cases phenomena of the entanglement of material flows across multiple mediums, which may include human bodies but always also include other bodies, artifacts, features of the landscape and setting, etc. Complex material

> systems remember. That is to say, their histories are relevant to the probability of different outcomes on future occasions. (Lemke 2016, pp. 3–4)

During the unfolding of speech/action events, traces of prior events in different "envelopes" (or patterns) are adjusted (or "entrained") to new speech/action events and facilitate the intake of the new instances that fit into (and expand) the envelopes. These "envelopes" can be seen as what are conventionally perceived as linguistic systems (e.g., phonological systems, grammatical systems) or separate languages (e.g., L1, L2, L3). However, these envelopes in ongoing interactions are actually much more open, porous, and fluid than they are conceived of under the conventional categories of separate languages or linguistics systems (or "codes"). The newly increased traces of events become the prior event traces (i.e., prior "envelopes") for future speech acts. Hence, with "envelopes" remaining open and unsealed, the knowledge and prior experiences of the learner also grow and become new traces in "envelopes within envelopes within envelopes" across different time scales. Lemke uses the metaphor of *open and unsealed envelopes* to capture the dynamic, fluid, unbounded, *first-order* reality of human meaning-making. However, when these "envelopes" are sealed (e.g., by grammarians, or the national/educational authorities) as separate, bounded language systems and taught as such to students and teachers, we develop the notion of separate linguistic systems and believe that we are operating with isolated languages (i.e., bounded codes). These beliefs can lead to actual teaching and learning practices that treat languages as stable codes, and thus the research literature on classroom code-switching/code-mixing can still have its analytical value (Lin 2013a), although I have increasingly found that the "code" concept cannot successfully destabilize the traditional "markedness" of code-switching/code-mixing, i.e., the traditional assumption that using a monolingual code is the natural, normal mode of human communication while code-switching/code-mixing is the "marked," unusual mode. The value of translanguaging theories lies precisely in overturning this traditional assumption. Language and human communication has always been hybrid, dynamic, and free-flowing as a *first-order* reality (i.e., open, unsealed envelopes, using Lemke (2016)'s metaphor) before it becomes codified and taught to school children as a *second-order* reality (as sealed envelopes—stabilized codes). After discussing the dynamic view of human communication underpinning the term translanguaging, in the following I shall discuss recent research on translanguaging pedagogies.

Translanguaging Pedagogies: "Spontaneous Translanguaging" and "Planned Translanguaging"

Recently researchers working on developing translanguaging pedagogies to scaffold bi-/multilingual development in bi-/multilingual education have started to differentiate between "spontaneous translanguaging" pedagogies and "planned translanguaging" pedagogies (Cenoz forthcoming). Spontaneous translanguaging

pedagogies take place without planning or design as the bi-/multilingual teacher spontaneously translanguages (or allows students to spontaneously translanguage or both) to scaffold students' learning in the ongoing dynamic interaction. This is the more familiar type of translanguaging pedagogy analyzed in the research literature (e.g., Creese and Blackledge 2010; Lin and Wu 2015; Lin and Lo 2016). On the other hand, *planned* or *design translanguaging* takes systematic planning on the part of the teacher (and curriculum designers) and requires an intimate knowledge of the students' multilingual linguistic resources. Cenoz (forthcoming) reported on a study in the context of the Basque Country where students speaking Spanish as their most familiar language (L1) need to learn the Basque language (as their heritage language) and English (as a foreign language). Cenoz and her colleagues have developed a systematic, planned translanguaging pedagogy to help students to draw out the similar linguistic features common to Spanish, the Basque language, and English. *Planned* or *design translanguaging* pedagogies thus require the teachers and curriculum designers to be intimately familiar with the linguistic features of all these languages in order to develop learning materials that can scaffold students' learning of all three languages instead of confusing them. In Cenoz's study, a translingual language arts program has been set up in the participating school with the explicit purpose of linking literacies in all these three languages that the students are learning in the school curriculum, and so, there is no clash of different learning agendas in the lesson.

Similarly, I have reported on the "bilingual notes approach" that science teachers in a secondary school in Hong Kong have designed to scaffold the students' learning of English academic language via Chinese academic language (Lin 2013b, 2016). In the context of Hong Kong, many students have developed a foundation of standard Chinese literacy in their primary school, and so, it is possible to draw on their Chinese literacy to scaffold their development of English literacy. Caution, however, needs to be exercised if the students' Chinese literacy is not well developed, and in that context this kind of pedagogy might not be suitable, or it will need to be carefully planned and designed (see discussion Chap. 6).

It is apparent from the discussion above that translanguaging pedagogies cannot be taken as a panacea. Translanguaging pedagogies need to be carefully designed and adapted to suit the different needs and demands of diverse educational settings and contexts. In that sense, there is no one single translanguaging pedagogy that can be taken as universally applicable, as this is true with any other pedagogy. However, the principles and spirit of translanguaging pedagogies can provide useful ideas for teachers and curriculum planners to adapt or innovate these pedagogies for their own unique contexts. These principles are summarized below:

1. Translanguaging is practiced by bi-/multilinguals in their natural communication, and it is the norm rather than the exception.
2. Human meaning-making is first and foremost experienced as fluid, dynamic activity flows (Lemke 2016), and we draw on all of our linguistic and semiotic resources when we are engaged in making sense of/to one another; this *first-order* reality is however reflected upon, analyzed, codified, and reified later on,

and experienced as *second-order* reality—thus our deep-rooted notion of separate languages (or "codes").

3. Translanguaging pedagogies can be differentiated as spontaneous or planned. However, these are best conceived as lying on a continuum rather than as strictly binary options.
4. Translanguaging pedagogies aim at mobilizing students' familiar resources to scaffold their mastery of the target resources (Lin 2012); thus, planned translanguaging pedagogies require teachers and curriculum material designers to systematically design materials that capitalize on students' strengths to support their learning. On the other hand, if teachers are using spontaneous translanguaging to scaffold learning, they need to be focused on facilitating students' understanding, activating their interest and background knowledge; this requires continuous gauging and monitoring of students' understanding and responding to students' responses and feedback (as these provide clues for teachers to grasp their students' current level of mis-/understanding). In view of this need of continuous gauging of and responding to students' current level of understanding, the kind of monologic (grammar) translation practice witnessed in many traditional East Asian language classrooms should not be mis-recognized as translanguaging pedagogies. Superficially they might look similar, but careful analysis would reveal one key difference: translanguaging pedagogies are focused on negotiating meaning with students by mobilizing what they are familiar with in order to help them understand what they are not familiar with (Lin 2012). Monologic (grammar) translation, on the other hand, is more focused on presenting the teacher's preconceived (grammatical) ideas and is not focused on negotiating meaning with students and gauging and responding to students' feedback (see discussion in Chap. 6, this volume). Experienced teachers who are intimately familiar with their students' strengths and weaknesses are more likely to be able to employ spontaneous translanguaging pedagogies successfully to scaffold their students' learning.

In concluding this chapter, I want to stress that research on translanguaging pedagogies is still very much in its beginning stage and there are still a lot of research questions to address (e.g., how to raise teachers' awareness and capacity in judging when and how to use translanguaging pedagogies; how to change school teaching and learning cultures to capitalize on translanguaging pedagogies with effective learning outcomes). However, there is room for optimism as researchers from different parts of the world join hands, compare notes, and continue to refine, redesign, and adapt translanguaging pedagogies for their own unique contexts. The value of translanguaging theories and pedagogies thus lies in their potential in cutting through the *pedagogical closure* imposed by monolingualism and linguistic purism dominant in the literature of language education and government language education policies (see review by Lin 1996, 2006, 2015; Lin and Man 2010; Creese and Blackledge 2010). Translanguaging theories and pedagogies resonate well with Bakhtin's observation on the absurd ideology of monoglossia of his day (and very much of today too):

> … it is as if these languages were in different chambers. They do not collide with each other in his consciousness, there is no attempt to coordinate them, to look at one of these languages through the eyes of another language. (Bakhtin 1935/1981, p. 295)

And I would like to end this chapter with Lemke's insight:

> It is not at all obvious that if they were not politically prevented from doing so, 'languages' would not mix and dissolve into one another, but we understand almost nothing of such processes.... Could it be that all our current pedagogical methods in fact make multilingual development more difficult than it need be, simply because we bow to dominant political and ideological pressures to keep 'languages' pure and separate? (Lemke 2002, p. 85)

References

Alvarez-Caccamo, C. (2001). Codes. In A. Duranti (Ed.), *Key terms in language and culture* (pp. 23–26). Oxford: Blackwell.

Baker, C. (2011). *Foundations of bilingual education and bilingualism* (5th ed.). Bristol: Multilingual Matters.

Bakhtin, M. M. (1935/1981). *The dialogic imagination: Four essays by M.M. Bakhtin* (C. Emerson & M. Holquist, Trans.). Austin: University of Texas Press.

Blommaert, J. (2010). *The sociolinguistics of globalization*. Cambridge: Cambridge University Press.

Cenoz, J. (forthcoming). Challenging minority language isolation: Translanguaging in a trilingual school in the Basque Country. To appear in *Language, Culture and Curriculum*.

Creese, A., & Blackledge, A. (2010). Translanguaging in the bilingual classroom: A pedagogy for learning and teaching? *The Modern Language Journal, 94*(i), 103–115.

Cummins, J. (2016). Teaching for transfer in multilingual school contexts. In O. García & A. M. Y. Lin (Eds.), *Bilingual and multilingual education (Encyclopedia of language and education)* (Vol. 5, pp. 103–116). Dordrecht: Springer.

García, O., & Wei, L. (2014). *Translanguaging: Language, bilingualism and education*. London: Palgrave Macmillan.

Lemke, J. L. (2002). Language development and identity: Multiple timescales in the social ecology of learning. In C. Kramsch (Ed.), *Language acquisition and language socialization* (pp. 68–87). London: Continuum.

Lemke, J. L. (2016). *Translanguaging and flows*. Unpublished research manuscript.

Lewis, G., Jones, B., & Baker, C. (2012a). Translanguaging: Developing its conceptualisation and contextualisation. *Educational Research and Evaluation, 18*(7), 655–670.

Lewis, G., Jones, B., & Baker, C. (2012b). Translanguaging: Origins and development from school to street and beyond. *Educational Research and Evaluation, 18*(7), 641–654.

Lin, A. M. Y. (1996). Bilingualism or linguistic segregation? Symbolic domination, resistance and code-switching in Hong Kong schools. *Linguistics and Education, 8*(1), 49–84.

Lin, A. M. Y. (2006). Beyond linguistic purism in language-in-education policy and practice: Exploring bilingual pedagogies in a Hong Kong science classroom. *Language and Education, 20*(4), 287–305.

Lin, A. M. Y. (2012). Multilingual and multimodal resources in L2 English content classrooms. In C. Leung & B. Street (Eds.), *'English'—A changing medium for education* (pp. 79–103). Bristol: Multilingual Matters.

Lin, A. M. Y. (2013a). Classroom code-switching: Three decades of research. *Applied Linguistics Review, 4*(1), 195–218.

Lin, A. M. Y. (2013b). Towards paradigmatic change in TESOL methodologies: Building plurilingual pedagogies from the ground up. *TESOL Quarterly, 47*(3), 521–545.
Lin, A. M. Y. (2015). Conceptualizing the potential role of L1 in content and language integrated learning (CLIL). *Language, Culture and Curriculum, 28*(1), 74–89.
Lin, A. M. Y. (2016). *Language across the curriculum & CLIL in English as an Additional Language (EAL) contexts: Theory and practice*. Singapore: Springer.
Lin, A. M. Y., & He, P. (forthcoming). Translanguaging as dynamic activity flows in CLIL Classrooms. To appear in *Language, Culture and Curriculum*.
Lin, A. M. Y., & Lo, Y. Y. (2016). Trans/languaging and the triadic dialogue in Content and Language Integrated Learning (CLIL) classrooms. *Language and Education, 31*, 1–20.
Lin, A. M. Y., & Man, E. Y. F. (2010). *Bilingual education: Southeast Asian perspectives*. Hong Kong: Hong Kong University Press.
Lin, A. M. Y., & Wu, Y. (2015). 'May I speak Cantonese?'—Co-constructing a scientific proof in an EFL junior secondary science classroom. *International Journal of Bilingual Education and Bilingualism, 18*(3), 289–305.
Otheguy, R., García, O., & Reid, W. (2015). Clarifying translanguaging and deconstructing named language: A perspective from linguistics. *Applied Linguistics Review, 6*, 281–307.
Pennycook, A. (2010). *Language as a local practice*. London: Routledge.
Thibault, P. J. (2011). First-order languaging dynamics and second-order language: The distributed language view. *Ecological Psychology, 23*(3), 210–245.
Williams, C. (1994). *Arfarniad o Ddulliau Dysgu ac Addysgu yng Nghyd-destun Addysg Uwchradd Ddwyieithog* [An evaluation of teaching and learning methods in the context of bilingual secondary education]. Unpublished doctoral thesis, University of Wales, Bangor.

Chapter 2
The Linguistic Ecology of Singapore

Viniti Vaish

Abstract This chapter, which is divided into two parts, language in society and language in education, introduces the site of the research studies on which this book is based: Singapore. Since the book is on English language education, the colloquial variety of English spoken in Singapore, Singlish, is described and discussed. Thereafter, translanguaging, the main concept for this book, is elaborated on, given that Lin has already introduced it. This is followed by the main research questions for the book and a chapter by chapter breakdown of what the reader can expect.

Introduction

Those who have travelled in the MRT or the local train in Singapore could not but have experienced the babble of languages surrounding them. They must have heard Chinese, Malay, some Indian languages, and also a plethora of South East Asian languages (Burmese, Tagalog) along with a smattering of European languages. Perhaps the linguistic experience in the MRT today is similar to that of the bazaars in this region in the 1820s when Sir Stamford Raffles, credited with the founding of Singapore, was in charge of the administration of Bencoolen. Though a lot has changed since the 1800s, Singapore has developed from a small trading port to one of the most prosperous countries in the world, the rich linguistic ecology of Singapore is still as vibrant today as it was in the 1800s.

The sociodemographic markers of Singapore, which currently has a population of 5.61 m, (as of June 2017 according to https://www.strategygroup.gov.sg/media-centre/publications/article/details/statistic-booklet%2D%2D-population-in-brief), show many of the attributes of a highly developed economy, one of them being literacy. According to Singapore Department of Statistics, in 2017, 98.8% of the males and 95.7% of the females above the age of 15 were literate. Among those in 2017 who were aged 25 or more, males had 11.3 and females had 10.4 mean years of schooling. These numbers point to a society where most young people have at least

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Table 1 Resident population aged 5 years and over by language most frequently spoken at home

Ethnic group/language	2000 (% of speakers)	2010 (% of speakers)
Chinese		
English	23.9	32.6
Mandarin	45.1	47.7
Chinese dialects	30.7	19.2
Others	0.4	0.4
Malays		
English	7.9	17.0
Malay	91.6	82.7
Others	0.5	0.3
Indians		
English	35.6	41.6
Malay	11.6	7.9
Tamil	42.9	36.7
Others	9.9	13.8

From Singapore, Department of Statistics

finished secondary school (https://www.singstat.gov.sg/find-data/search-by-theme/population/education-language-spoken-and-literacy/latest-data).

In addition to being a highly literate society, Singapore is also extremely multilingual. Unlike in other global cities like New York and London, multilingualism in Singapore is the norm and monolingualism is the exception. Table 1 categorizes Singaporeans on the basis of the language they speak most frequently at home and shows the changes that have taken place in the last decade. The three groups of people in Table 1, Chinese, Malays, and Indians, are the main ethnic and linguistic groups in Singapore.

In this table, I want to draw the attention of the reader to the high numbers of people who do not speak English most frequently at home. In 2000 these numbers were 76.2% for the Chinese, 92.1% for the Malays, and 64.1% for the Indians. In 2010 67.3% of Chinese, 83% of Malays, and 58.4% of Indians aged 5 and above did not speak English most frequently at home. No doubt in the decade between 2000 and 2010, there has been an increase in English as the language most frequently spoken at home for all the three ethnic groups. In fact a more recent infographic released recently by Singstats shows that this trend is continuing (Fig. 1).

However, my focus is on young school going children who do not speak English at home as their dominant language. Though many speakers in Table 1 and the infographic are beyond school going age, there are definitely school going children in this group of speakers. Also, though most preschoolers are not included in these data as they are less than 5 years of age, it is reasonable to assume that these percentages are also true for preschoolers. In other words even in 2015, 63.1% of people did not speak English most frequently at home. This is, indeed, a large group of people. I want to emphasize the linguistic background of this cohort because in Singapore we overemphasize the cohort of children who increasingly come to

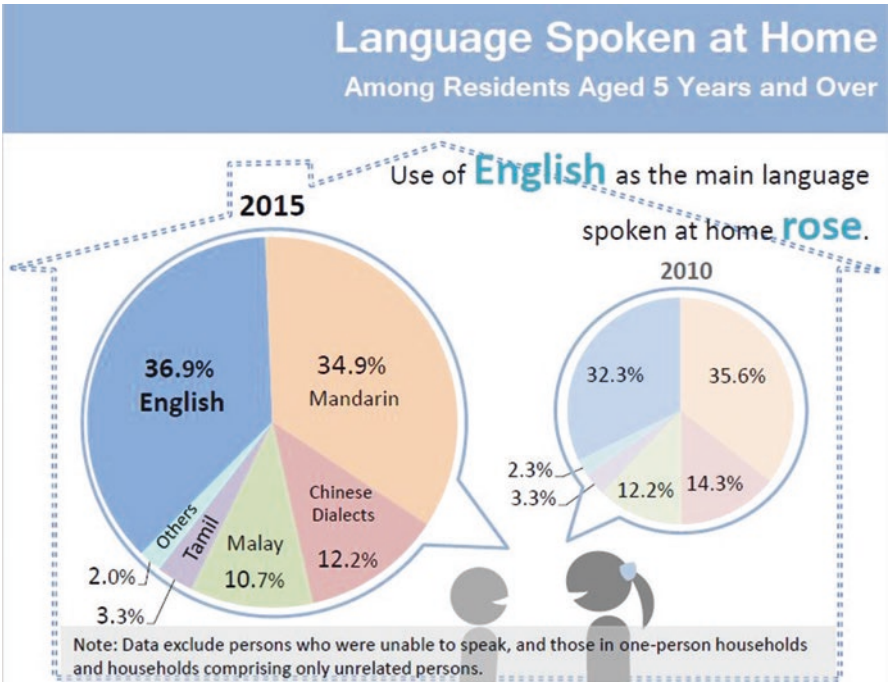

Fig. 1 Infographic of resident population aged 5 years and over by language most frequently spoken at home. (From Singapore, Department of Statistics)

school from English dominant homes. This book is about all types of bilingual children: those who are not exposed to English as a dominant language at home, those who are, and those whose dominant language is in a state of flux. The point is that whatever may be the dominant language of bilingual children, they actively indulge in translanguaging to learn, express identity, and make meaning of the world around them.

The section of Singaporean youth who do not speak English as a dominant language is also of interest to Professor Goh Yeng Seng at the National Institute of Education in Singapore. This complex linguistic ecology, comprising English dominant and non-English dominant bilinguals, is well problematized by Yeng Seng (2017) in his study of Chinese language teaching, curriculum and language attitudes in Singapore. He writes that in addition to English dominant youth, "the bilingual education system has also produced a generation of bilinguals who possess greater competence in Mandarin than English….This group of bilingual teachers still displays greater affinity for Chinese than for English" (pg. 63). In fact, in his study of young Chinese language teachers in Singapore, Yeng Seng found that they attribute a higher value to Chinese as compared to English for being more aesthetically pleasing, intimate, and attuned to popular culture. Thus not only in terms of proficiency but also in terms of affiliation, Singapore is a unique and complex linguistic space.

This chapter is divided into two main parts: language in society and language in education. In the former, the national linguistic landscape of Singapore is discussed. Here I bring the reader up to date with the current language situation in Singapore and draw attention to the contested terrain of Singlish, the colloquial variety of English spoken in this country. The second half of this chapter is focused on the country's bilingual language in education policy and its outcomes. The bulk of the second half is on "translanguaging," both a conceptual tool and a methodological approach that forms the central hook for the ideas in this book. Finally, the argument of the book is stated along with a chapter by chapter summary of what will follow.

Language in Society

Article 153A in the Constitution of Singapore states that there will be four official languages in the country:

> "**153A. Official languages and national language**
>
> 1. Malay, Mandarin, Tamil and English shall be the 4 official languages in Singapore.
> 2. The national language shall be the Malay language and shall be in the Roman script:
>
> Provided that -
>
> (a) no person shall be prohibited or prevented from using or from teaching or learning any other language; and,
> (b) nothing in this Article shall prejudice the right of the Government to preserve and sustain the use and study of the language of any other community in Singapore."
>
> "**53. Use of languages in Parliament**
> Until the Legislature otherwise provides, all debates and discussions in Parliament shall be conducted in Malay, English, Mandarin or Tamil."
>
> *Singapore's Constitution of 1959 with Amendments through 2010*

In keeping with the spirit of Article 153A, non-Tamil languages in the Indian community are allowed in the school system. As the numbers of children who study non-Tamil Mother Tongues are small, classes are held outside school, usually on weekends.

Though all four official languages are given equal status, in the experience of Singaporeans, English is de facto the most important language. Evidence for this experience is provided by studies on the linguistic landscape of Singapore like those conducted by Tan (2014), Tang (2018), and Shang and Guo (2017). In a study of the linguistic landscape of MRT signage (MRT is the local train system of Singapore, comparable to the London tube), Tang (2018) found that most of the signs were actually in English and did not adequately represent the other three languages. Tang collected 1554 signs from the circle line, one branch of the MRT, which covers the Central Business District and lies at the physical and commercial heart of Singapore. After dividing these signs into three categories, those created

by the government, corporations, and individuals, Tang coded them according to the presence of and order of languages used in these signs. He found that 42% of the signs by the government and 40.2% of signs by corporations were monolingual English signs. Only in the case of signs posted by individuals were there very few monolingual English signs. Though the next most commonly found sign from government, corporations, and individuals was bilingual, it still emphasized English. The least common sign was one which was bilingual and which emphasized a non-English language. Tang also found that in second place, Chinese and Malay often vied for positionality displaying a tension between the language of the majority ethnic group and the national language. Tamil had the least importance in all these signs in terms of presence and positionality.

This study by Tang (2018) corroborates many such smaller studies undertaken by my master's degree students in a course that I teach at the National Institute of Education: Theory and Practice of Bilingualism and Biliteracy. Students in this course often opt to write a research paper on the linguistic landscape of a specific part of Singapore. Even in the case of studies of a geospace like Chinatown, which is supposedly the most Chinese part of Singapore, my students have found that signage from corporations emphasizes English rather than Chinese. Thus there is evidence for Tang's (2018) conclusion that de facto "Singapore might be more monolingual than bilingual or multilingual-oriented" (pg. 20), though de jure it is multilingual.

Tan's (2014) study of official signs, or signs placed by government agencies in Singapore, and Shang and Guo's (2017) study on shop signs in Singapore's neighborhood markets draw similar conclusions. At the same time, both these studies contribute unique observations regarding the linguistic landscape of Singapore. For instance, Shang and Guo observe the ubiquity of Chinese-English signs in the markets of Singapore. They comment that though simplified Chinese characters have been adopted in the education system since 1969, the shop signs display traditional characters which could be because such shops are run by older Chinese Singaporeans who are not only well versed in the traditional writing system but also have a clientele of older customers who can read these characters. A unique observation made by Tan (2014) is that Singlish, or the colloquial variety of English spoken in Singapore, is not represented in the official signs that the author collected. It is to this aspect of language in Singapore that I now turn.

Singlish

In the case of English, there are two varieties of English spoken in Singapore: Standard English and Singlish. This colloquial variety of English has a specific grammar, accent, and intonation. The most obvious grammatical features of Singlish are the use of pragmatic particles ("lah," "ah," "leh," "lor," "meh," and "what"), lack of subject-verb agreement and inflectional morphology (e.g., Singlish drops plurals, tenses, and verbs can be used without subject), simplification of word final conso-

nant clusters, and use of glottal stop in word final position instead of consonants or consonant clusters (e.g., "expertee" instead of "expertise"). Singlish also shows evidence of reduplication, use of loan words from ethnic languages, and widespread use of acronyms. Finally, syllabic stress in Singlish is very different from syllabic stress in Standard English. When all the features of Singlish are used together by a speaker, this register of English can become incomprehensible for a speaker of Standard English.

There is some scholarship on the grammatical and cultural properties of Singlish (Wong 2005; Wee 2002) in which scholars validate the legitimacy of Singlish. For instance, Wong (2005) provides evidence to show that most of the grammatical features of Singlish have been derived from either Mandarin, other Chinese dialects (Hokkien and Cantonese in particular), or Malay. Wong is correct in noticing that there are practically no attributes of Singlish which seem to be derived from Indian languages like Tamil. Wong's (2005) article focuses on the use of the particle "one" in Singlish, which, he argues, is a feature derived from Mandarin Chinese. Wong comments that the lack of inflectional morphology in Singlish is derived from Chinese Mandarin. I agree with this statement because Tamil, which is an agglutinative language, has complex and rich inflectional morphology and had Singlish been influenced by Tamil it would have had inflectional morphology. Malay too has morphological patterns though this attribute of Malay is not at rich as it is in Tamil. Most importantly Wong (2005), like Wee (2002), validates the cultural value of Singlish: "…Unlike Anglo English, Singapore English does not reflect exclusively Anglo values. Rather, it is characterized by many words which originate from the Chinese languages and, perhaps to a lesser extent, Malay; and those words reflect values and speech norms from their cultures of origin" (Wong 2005, pg. 242).

Similarly studies like Zhiming and Min (2005) and Zhiming and Aye (2010) on the use of bare conditionals in Singapore Colloquial English assert that topic prominence and the omission of the conditional "if" in Singapore Colloquial English and Bazaar Malay are indications of substrate transfer from Chinese. More importantly Zhiming and Min (2005) consider Singapore Colloquial English, popularly called Singlish, to be a language. The stance that Singapore Colloquial English is a language just as Chinese, Malay, and Tamil is controversial, I believe, for two reasons. Firstly it is not included in the Singapore census. Secondly the study itself refers to this "language" as "Singapore Colloquial English" which suggests that this is a variety of Standard English and not a separate language, a position taken by other scholars in Singapore like Tan and Tan (2008) and Gupta (1986). My stance, as I will elaborate later in this chapter, is that Singapore Colloquial English is a variety of English that exists in a diglossic situation and is, indeed, as essential component of translanguaging along with other languages in the vibrant linguistic ecology of Singapore.

Two studies have investigated the attitudes of school going children and teachers in Singapore towards Singlish (Rubdy 2007; Starr et al. 2017). Rubdy surveyed 690 primary school children (10–12-year-olds) on their attitudes towards Singlish through a questionnaire. In the same study Rubdy also interviewed 57 teachers and compared the speech vs the written work of students to find out if primary school

students wrote the way they spoke. Results of the questionnaire revealed that 93% of the 10–12-year-olds disagreed that it is cool to speak Singlish and 92% of them agreed that they would like to learn to speak good English. At the same time, 83% of them spoke Singlish with their friends during recess in school. Comparison of the use of Singlish in written work with the speech of primary school students showed that very few grammatical aspects of Singlish occurred in the writing of primary school students. These results led Rubdy (2007) to conclude that "These primary school students have already internalized the separate domains of use for SSE (Standard Singapore English) and SCE (Singapore Colloquial English) in Singapore society, wherein their functional knowledge of language use tells them that Singlish is the most natural and spontaneous choice for informal talk among family and friends while SSE is reserved for educational, professional and formal contexts" (pg. 316).

As a gloss to Rubdy's (2007) study, I would add that her cohort did not include children in the Learning Support Program (LSP), which is the cohort at the heart of this book. The LSP will be described in detail in the ensuing chapters. Here suffice it to say that if the children in the LSP are English dominant, it means that they are actually Singlish dominant. These children do not have access to the linguistic capital of Standard English in their homes and communities. The only Standard English they hear is in school. Though the children in Rubdy's (2007) study were able to see the differences between Singlish and Standard English in prose, children in the LSP would not be able to translanguage in this way as they are weak in Standard English. This, in fact, is the reason they are in the LSP.

School going children are aware of the types of Englishes spoken in Singapore, and at an early age they develop attitudes about the status of these varieties of English. In a study of attitudes of 115 children aged 5–19 comprising local and expatriate children in Singapore, Starr et al. (2017) found that children had formed opinions about the occupations of English speakers based on their accents. The authors made the participants listen to four types of Englishes: Australian English, North Chinese accented English, Filipino English, and Singapore English. In a part of the study, the participants were asked to guess the occupational group of the speaker. For the Singapore English speaker, most of the local Singaporean children guessed that the speaker was most likely to be a teacher and least likely to be housemaid.

This result points to the acceptance of some features of Singlish by children and young adults in present-day Singapore. At the same time, since the actual audio of the speaker articulating the passage in Singapore English is not available, it is possible that the basilect version of Singlish was not used in the passage. Had a basilect variety been used, the children might not have thought that the speaker was a teacher.

In concluding this section of the chapter on Singlish, I want to reiterate that though the Singapore government collects data on English, these data are not differentiated on the basis of English vs Singlish. Thus the increasingly large numbers of children who come from "English"-speaking homes include children who actually speak only Singlish. Many of these children are also in the Learning Support

Program which will be described in detail in Chap. 3. These children are in the Learning Support Program despite the fact that they come from "English"-speaking homes. Thus there is immense diversity in the multilingual children who are placed in the Learning Support Program. The program includes children whose home language is not English, children whose home language is English though it is actually Singlish, and children who hear mainly Mother Tongue in their homes.

Language in Education

Singapore has a bilingual language in education policy in which learning two languages is mandatory. Though English is the medium of instruction and all the subjects are taught in English, all school going children have to take a "Mother Tongue" which is typically the language of the ethnic group of the child. The three main ethnic groups in Singapore are Chinese, Malay, and Indian with Mandarin, Malay, and Tamil as their identifying languages, respectively. In 1989, due to the changing demography of the Indian community in Singapore, the Ministry of Education allowed Indian children who do not speak Tamil at home to choose from the following non-Tamil Mother Tongues: Hindi, Gujarati, Bengali, Punjabi, and Urdu (Singh, 2011). Though Singapore is a highly multilingual country, the school system is essentially bilingual in that each child is expected to master two languages. Thus throughout the book, I refer to bilingual classes because with each child only two languages are being used though each class is multilingual in that many bilingual pairs of languages are represented through a diverse student body, e.g., Malay-English, Tamil-English, and Chinese-English.

Numerous scholars have evaluated the outcomes of Singapore's bilingual language in education policy. For instance, Curdt-Christiansen (2014) laments the outcomes for the Chinese community. She points out that a number of curricular aspects have created a landscape of overall low achievement in learning Chinese. Most importantly, the number of hours allotted to the learning of Mother Tongue is not adequate. In the basic stream, children spend 4–5 h per week, and in the higher stream 5–7.5 h per week learning Chinese. Though school children spend very few hours learning Chinese, and, as Curdt-Christiansen's comments indicate, they are not learning the language well, it is a very important social and educational policy for the government. Curdt-Christiansen (2014) substantiates this opinion by analyzing advertisements for the annual Speak Mandarin Campaign. Using Critical Discourse Analysis, she points out that in the past decade this Campaign has been advertised and promoted by pushing Chinese as instrumental for business, cool, challenging, and culturally indispensable. Though there are no articles in scholarly journals for the outcomes of learning Tamil and Malay, I am aware that Singaporeans often remark on the low level of Malay and Tamil acquired by school going children.

The outcomes of English language education are different. Singapore has consistently been in the top 10 in the Progress in International Reading Literacy Study conducted by the International Evaluation Association. The PIRLS, in which about 50 countries participate, is a test of reading achievement in grade 4 (http://pirls2016.org/pirls/summary/). In 2016 Singapore came 2nd in PIRLS after the Russian Federation. Since this test is conducted with a representative sample of school going children, and for Singapore the test is in English, it is reasonable to assume that the standard of English language education in Singapore is reasonably high.

Despite these stellar results, Singapore is aware that there are many children who come into grade 1 without the requisite skills in reading English, which is the impetus behind the Learning Support Program (LSP). The LSP is an early intervention in reading for struggling readers implemented in all primary schools in Singapore. The number of children registering for primary school in 2016 was 41,000 (http://www.channelnewsasia.com/news/singapore/primary-1-registration-to/1923958.html), which is similar to the cohort size in the last 5 years. Each year 12–14% of students entering grade 1 are identified as requiring learning support for math and English. Though most of these children attend either learning support classes in math or English, a few attend both. There is no data in the public domain about the background of the children who are in the LSP. However, from informal conversations with numerous teachers in the LSP, I gathered that many children in these classes come from lower-income homes where a substantial amount of Mother Tongue is spoken. Even in homes where English is spoken frequently, the quality of language is closer to Singlish rather than Standard English. Though in a few LSP classes we did encounter autistic boys or children with ADHD, most of the children would be classified as typically developing but weak readers.

The LSP has many similarities with both pull-out ESL and push-in ESL classes. Students are pulled out of their mainstream classes for half an hour per day and provided instruction in a separate room. Curriculum in the LSP classes closely follows what the mainstream English teacher is doing thus the program has features of a push-in ESL program. All the instruction is in English, and the approach of the teacher is that the children are monolinguals even though neither the students nor the teacher is monolingual. Though each school in Singapore has teachers who teach Chinese, Malay, and Tamil in the Mother Tongue classes, these teachers rarely interact with the LSP teacher, though they are language teachers for the same students. There is thus a lack of communication between the English and Mother Tongue teachers regarding the students they are teaching. Within the LSP program, there are three tiers: Tier 1, 2, and 3. Typically children enter the program in Tier 1 and exit in Tier 3. The program starts with a phonics-based approach to reading Ginn readers and goes on to a more whole language-based approach.

This book is based entirely on children in the Learning Support Program. Both the research projects, which will be described in detail in Chap. 3, were situated in the LSP.

Translanguaging

Translanguaging has become a buzzword and a moot concept in the literature on bilingualism, as Lin has explicated in the introduction to this book. Here I will first explain it on the basis of my own experience and thereafter refer to the increasingly burgeoning literature on this topic.

Discussing the debate between translanguaging and the older buzzword "code-switching" is one way of establishing the definition of translanguaging. During my data collection in a government school in India, which had recently changed its medium of instruction from Hindi to English, I found that when the teacher was talking in English most of the students were taking notes in Hindi (Vaish 2008). Though at that time the word translanguaging was not prevalent and I was using the term code-switching, it occurred to me that the type of learning taking place in the cognitive space of the student was not merely code-switching. Technically no one was switching languages. The teacher was speaking in English and the students were silent. However, the students were translating and transliterating what the teacher was saying into Hindi as they wrote their notes in the English textbook. Today, this languaging practice is definitely translanguaging and not code-switching because it involves multiple modalities of listening, writing, and thinking spread across two languages with no efficient way of separating them.

In an interview with Professor Ofelia Garcia, who is at the forefront of research in translanguaging, the following question was posed:

> But isn't translanguaging what others call "code-switching"?
>
> Absolutely not! Notice that translanguaging is not simply going from one language code to another. The notion of code-switching assumes that the two languages of bilinguals are two separate monolingual codes that could be used without reference to each other. Instead, translanguaging posits that bilinguals have one linguistic repertoire from which they select features strategically to communicate effectively. …Translanguaging takes as its starting point the language practices of bilingual people as the norm, and not the language of monolinguals…. (from Celic and Seltzer 2011, pg. 1)

A more recent example to distinguish between code-switching and translanguaging is provided by Li Wei (2018) from a corpus of New Chinglish words. For instance, the word "gunverment" has been created by mixing "gun" plus "government" and includes connotations of Mao's statement that "Government comes out of the barrel of the gun." Li Wei rightly comments that existing terms such as code-mixing and code-switching are unable to capture the nuances of such a word as they are still constrained by naming languages as different structural and cognitive entities. More importantly Li Wei reminds us that the origin of the word "translanguaging" is not so much theory as a specific language practice situated in pedagogy. "It was Baker's (2001) English translation of Williams' (Williams 1994) Welsh term trawsieithu, to describe pedagogical practices that Williams observed in Welsh revitalization programmes where the teacher would try and teach in Welsh and the pupils would respond largely in English" (Li Wei 2018, pg. 15).

It is to this pedagogical definition of translanguaging, which is also emphasized by Lin in her introduction to this book, that I now turn. Since this book is about translanguaging pedagogy, Hornberger and Link's (2012, pg. 262) definition is the most relevant here. They write that translanguaging is "the purposeful pedagogical alternation of languages in spoken and written, receptive and productive modes" (pg. 262). In the example above, the student is listening in one language and writing the same content in another; thus her receptive and productive parts of the brain are simultaneously processing two linguistic systems. Garcia (2009) and Baker (2006) document that the term was first used by Cen Williams in Wales and referred to a unique curriculum which involved "the hearing, signing, or reading of lessons in one language, and the development of the work (the oral discussion, the writing of passages, the development of projects and experiments) in another language" (Garcia 2009, p. 301). The example I have provided above of the government school classroom in India falls under translanguaging pedagogy.

Cenoz (2017) has recently added a further nuance to translanguaging:

> In the context of multilingual education, a distinction can be made between pedagogical and spontaneous translanguaging. …Spontaneous translanguaging refers to the reality of multilingual usage in naturally occurring contexts where boundaries between languages are fluid and constantly shifting. It can take place both inside and outside the classroom. Inside the classroom, it can have pedagogical value but it has not been planned in advance as a pedagogical strategy. (pg. 7)

This book is about a planned pedagogical strategy, called "Raise the BAR (Bilingual Approach to Reading)," inside the classroom. The term "translanguaging" was deliberately not used in the title of this strategy as this term is not familiar to teachers in Singapore, and using such an academic term might deter teachers and schools from participating in our research project. Though Raise the BAR was planned, there were many aspects regarding curriculum, nature of the student body, nature of student talk, etc. that were unknown to us when we started our research study. We resourcefully adapted to these aspects as we journeyed forward, as did the students and teachers, who had never encountered translanguaging pedagogy in their school. Thus Raise the BAR comprised both design and spontaneous elements.

No doubt the term "translanguaging" has precursors like "hybrid language practices" (Gutierrez 2008) and Spanglish (Zantella 1997); however the substantial theory and pedagogical practice that Garcia (2009) and Garcia and Wei (2014) have provided for this term have caught the imagination of the academic community. The large number of articles being written on this topic, a trend that Angel Lin also refers to in the introduction to this book, is testimony to this interest.

It is ironic that despite being one of the most multilingual countries in the world, and with bilingual education as it cornerstone, Singapore is not familiar with the use of translanguaging as a resource in the classroom either in the English or in the MT classes. Surprisingly, in Chinese Mother Tongue classes, despite the fact that the government has repeatedly acknowledged that increasingly children are coming to school from English dominant homes, English is not considered a resource to teach and learn Chinese. Li et al. (2012) analyze some recent changes in the Chinese language syllabus and the perceptions of teachers towards these changes. Specifically

the Chinese Language Curriculum and Pedagogy Review Committee (CLCPRC) in 2004 recommended a modular approach to learning Chinese in which oral communication skills in Chinese and the use of ICT for learning would be emphasized, especially for children whose dominant home language was not Chinese. Though oracy is emphasized in the new modular approach, the pedagogic strategy of systematically using English to teach Chinese is not mentioned.

In Vaish and Subhan (2015) and Vaish (2018), I have briefly described one of the two research projects on which this book is based. This book is an opportunity to describe and analyze in detail the sliver of data presented in the aforementioned articles. These articles showcase some of the interactional patterns in which Chinese and Malay were systematically used to teach vocabulary, grammar, and comprehension in English. In one of the teacher interviews, I discovered that even before our research team approached her, the teacher was using translanguaging in her class in an ad hoc manner to support children who came from Malay and Chinese dominant homes. She explained her pedagogy thus:

> Because, I mean before the program actually started I've already been using some form of bilingualism inside my LSP classes. So I think it's actually a very good step, it's a very good approach, especially for these kids. Most of them are not from the English speaking family. Most of them are from, you know, Chinese, Tamil and Malay. And it really helps because not, now, not only are they able to read, they also able to understand what they are reading because some of these kids, yes they might, they are able to read but they don't understand what they are reading. So I think it's a very good approach.

Given that this teacher had 15 years of teaching experience in the Learning Support Program, her comment is noteworthy. Without knowledge of the term translanguaging, she had been experimenting with using translation as a resource in the class to teach vocabulary in English. This was one of the reasons she was keen to participate in our research project and learn a systematic way of using Mother Tongue in the classroom to teach English. Unfortunately in Singapore the experience and practices of teachers are not considered reason enough to introduce translanguaging in the LSP to support weak students. This comment is an application of translanguaging at a fundamental level. It is an example of "trans-system and trans-spaces; that is, … fluid practices that go between and beyond socially constructed language and educational systems, structures and practices to engage diverse students' multiple meaning-making systems and subjectivities" (Garcia and Wei 2014, pg. 3). The teacher validates the use of Mother Tongue in the English classroom to reinforce meaning-making, which is at the core of the practice of reading. She also validates their "subjectivities" by bringing in their home language, in this case Malay, which, as she mentions, is their dominant language. In this way the teacher is going "beyond socially constructed language and educational systems" which keep languages apart and proscribe translanguaging.

The discussion above brings us to a fundamental aspect of pedagogic translanguaging: should it be spontaneous or planned? In this book both aspects are an integral part of the pedagogy. In the Proof of Concept, as I will describe in detail in Chap. 3, the pedagogy was carefully planned with the collaboration of the teachers down to which lexical items and grammatical forms would be taught

through translanguaging. Yet, the junctures at which the teacher would leave an English-only format and approach the task through translanguaging was completely improvised. Also, we had no idea what to expect from the students, and there was no plan as to how we would use their responses. In keeping with this idea of the spontaneous vs planned is the debate as to exactly what is translanguaging pedagogy and what is not. At the most basic level pedagogy where teaching and learning are taking place through one language is not translanguaging. It is my belief that where a second or third language, apart from the medium of instruction, is allowed into classroom with an affective, academic, or identity goal, the pedagogy is translanguaging pedagogy.

Finally, which languages are included in the translanguaging practices of the students and teachers in this book? The bilingual students in this book are speakers of either Malay and English or Chinese and English. Thus three languages form the core of this book: English, Malay, and Chinese. In the case of English, the sociolinguistic landscape is complicated by the presence of Singlish along with Standard English. My view regarding Singlish is that it exists along with Standard English in the linguistic ecology of Singapore in a diglossic situation. Ferguson (1959) in his seminal paper wrote:

> For convenience of reference the superposed variety in diglossia will be called the H ('high') variety or simply H, and the regional dialects will be called L ('low') varieties or, collectively, simply L. (pg. 327)

Just as in other diglossic languages, e.g., Tamil and Arabic, these two versions or registers are still considered part of one language, I believe that Singlish and Standard English are components of one language, with Singlish as the "L" variety and Standard English as the "H" variety. Tan and Tan (2008) in their paper on the attitudes of upper secondary school students towards Singlish reinforce this view. They also point out that "Standard English operates together with Singlish, and disentangling the two might be more difficult than imagined" (pg. 469). This intermeshing is especially relevant while analyzing language learning in 6–7-year-olds, which is the cohort studied in this book, as children at this age are unable to articulate the differences between Singlish and Standard English. It is for this reason that agentive and deliberate switching between Singlish and English is not a languaging phenomenon that can be quantified for the cohort of students in this study. Gupta (1986) and Alsagoff (2007), though they point out that the diglossic view of Standard English and Singlish is simplistic, do acknowledge its relevance in the linguistic landscape of Singapore.

No doubt translanguaging can occur between the L and H varieties of one language, but for this to be executed successfully, the speaker must have a high level of proficiency in both the varieties. Unfortunately it is often the case that children in the lower SES groups do not have access to standard varieties of language and know only the L variety. This is the level of proficiency of the children in the LSP regarding English: they know only the L variety. For such children translanguaging is not yet an available languaging skill. In this book when I refer to English, it is English with elements of Singlish spoken by children in the LSP.

Argument of the Book

Now that a working definition of translanguaging has been discussed, I move on to the central argument of this book. This book explores the following broad research questions:

1. What happens when translanguaging pedagogy is introduced into a traditionally monolingual English class?
2. How can interactions replete with translanguaging be analyzed to show the purpose of the teacher and the learning of the students?
3. What are the ways in which we can measure the changes in teacher talk and student talk that happen due to translanguaging? Given that there was no standardized testing of students in this research study, how can student talk provide evidence of whether or not students are benefiting from translanguaging pedagogy?

The following chapters attempt to answer these broad research questions and a few new ones which are specific to the chapter. Throughout the book I am cognizant of the Asian context within which this study is culturally and ecologically situated. According to Li Wei (2011), translanguaging is deeply transformative. It is the "multilingual speakers' creative and critical use of the full range of their sociocultural resources" (Li Wei 2011, pg. 1222). For translanguaging space to be meaningful, the teacher and the students must collaborate as equals to create a democratic space where talk time can be shared not only between interlocutors but also between languages. Only when power is truly shared can the speakers be creative and critical. As the reader will see in the ensuing chapters, the culture of pedagogy in Singapore, which is teacher fronted and highly scripted, is at odds with the very philosophy of translanguaging. Thus implementing a translanguaging program was fundamentally disruptive not only at the level of pedagogy and curriculum, but it challenged the very culture of the classroom.

Introduction by Angel Lin: Translanguaging and Translanguaging Pedagogies

This introduction by Professor Lin defines and problematizes the theory of practice of translanguaging. She starts by explicated the differences between code-switching and translanguaging. She then moves on to the juxtaposition of planned vs spontaneous translanguaging which is very important for this book. Lin's definition of these terms sets the stage for how these terms will be explicated through the data from Singapore's classrooms. Lin's final point about the challenges that translanguaging presents for teachers who want to practice it finds resonance in this book.

Chapter 3 Methodology: Translanguaging and the Classroom

Chapters 3 and 4 are both on the methodology of this book. In the first instance, the two research projects on which the book is based, the baseline study of the LSP and the Proof of Concept, are described. Raise the BAR (Bilingual Approach to Reading) which is the design of the Proof of Concept or the research study in which translanguaging was used in the LSP classes is described in detail. I share with the reader the challenges we faced in implementing Raise the BAR as this was a bottom-up design in which we changed the procedures along the way in keeping with the concerns of the teachers.

Chapter 4 Methodology: Coding Bilingual Transcripts

Thereafter the coding methods used throughout the book are discussed. Specifically transcripts were coded for quantity and quality of talk. In the former category, the focus was amount of talk and Mean Length of Utterance. In quality of talk questioning patterns, storytelling and interaction were the foci. Finally I reflect on the challenges of coding transcripts with specific pairs of languages like Malay-English and Chinese-English.

Chapter 5 Comparing Monolingual and Bilingual Classrooms

Pedagogy in the Learning Support Program of two groups of schools is discussed: one group where there was no change in the pedagogy vs another where translanguaging was introduced into the LSP classes. The first broad research question of this book regarding what happens when translanguaging is introduced into a monolingual class is addressed in Chap. 5. The main finding is that though there was no change in questioning patterns in teacher and student talk, there was a substantial change in interactional patterns due to translanguaging.

Chapter 6 Interactional Patterns in the Malay Group

Findings regarding the Malay-English group are presented in this chapter. The main finding is that, contrary to my assumptions, the average MLU of the Malay-English group went down in the translanguaging classes. I reflect on the reason why this could have happened. The other important finding is the way the teacher evoked metalinguistic awareness. In the teaching of vocabulary, I demonstrate how the

teacher used Malay to teach the precise meaning of the English word and create cross-linguistic transfer between Malay and English.

Chapter 7 Interactional Patterns in the Chinese Group

Similarly, an important finding here is the way the teacher used Chinese to create cross-linguistic transfer and metalinguistic awareness. Specifically I analyze interaction in which the teacher explained the differences between Chinese and English grammar to help the children notice that grammatical rules for one language cannot be applied to the other. In both Chapters 6 and 7, the interactional patterns show that translanguaging did indeed trigger metalinguistic awareness in the students.

Chapter 8 The Storytellers

Did translanguaging improve English language acquisition and if so exactly what improved? Chapter 8 explores answers to this question through a discussion of 22 stories told by 8 students. After coding these stories for amount of talk, lexical density, and episodic structure, I argue that translanguaging did, indeed, contribute to the eagerness of the children to tell stories, learn new vocabulary, and comprehend the texts they were being taught in class. However, the children who benefited most from translanguaging pedagogy were those who came from Mother Tongue dominant homes.

Chapter 9 Conclusions and Implications

The chapter starts with a summary of the specific Asian contexts that have been discussed in this book. How translanguaging brought substantial changes into classroom discourse is summarized in this final chapter along with aspects of pedagogy that, surprisingly, did not change. The journey through this research project was remarkable in the challenges it presented to the research team. A discussion of these difficult moments, from persuading schools and policymakers to buy into the concept of translanguaging, to coding transcripts with such disparate languages like Malay, Chinese, and English, is offered here in the hope that future researchers will anticipate these problems. Finally, I reflect on the growth area for a concept like translanguaging which, though it has caught the imagination of the international academic community, is lagging behind in some methodological issues. Future graduate students could take note of these areas and try to address them in their projects to take translanguaging forward.

Conclusion

Though I have written this book, neither the research projects on which it is based nor the presentation of this book would have been possible without the team of multilingual research assistants who have been working with me for the past decade. Some of these young people are students at the National Institute of Education in Singapore where I work, and others are students in NTU or NUS. Whether they worked on my projects for many years or just joined for a few months to transcribe the complex multilingual transcripts which make the bulk of our data sets, all these individuals have taught me about their languages and cultures.

Despite the obvious differences between English, Malay, Tamil, and Chinese (Tamil is not included in the two research projects analyzed in this book, but it is an integral part of my other research projects), I see words and stories in these disparate languages that bind us in one geography and cultural landscape. For instance, the word "duniya" means "the world" in Malay. It has the same meaning in Hindi and Urdu, two of the languages that I speak fluently. One of the reasons for this connection between Hindi and Malay is that the ancient language Sanskrit, which is my L3, is a source for a lot of the lexicon in Hindi and Malay language. For instance, the word "Budiman" in Malay is derived from the Sanskrit word "Buddhimaan," meaning intelligent or a person with knowledge. In fact the word for "language" in Malay is "bahasa" derived from the Sanskrit "bhashaa." Similarly the monkey king of the Hindu epic Ramayana, an integral part of my Indian culture, is not only part of Chinese mythology, he also makes an appearance in the legends of Bali in Indonesia. Reflecting on these words and myths that connect the disparate ethnic groups in South East Asia is my personal attempt at trying to make meaning about being in the world through translanguaging.

References

Alsagoff, L. (2007). Negotiating culture, capital and identity. In V. Vaish, S. Gopinathan, & Y. B. Liu (Eds.), *Language* (pp. 25–46). Critical Studies of Language in Education in Singapore: Capital, Culture.

Baker, C. (2006). *Foundations of bilingual education and bilingualism* (4th ed.). Clevedon: Multilingual Matters.

Celic, C., & Seltzer, K. (2011). *Translanguaging: A CUNY-NYSIEB guide for educators*. New York: The Graduate Center, CUNY.

Curdt-Christiansen, X. L. (2014). Planning for development or decline? Education policy for Chinese language in Singapore. *Critical Inquiry in Language Studies, 11*(1), 1–26.

Garcia, O. (2009). *Bilingual education in the 21st Century: A global perspective*. Malden: Wiley/Blackwell.

Garcia, O., & Wei, L. (2014). *Translanguaging: Language, bilingualism and education*. New York: Palgrave.

Gupta. (1986). A standard for written Singapore English? *English World-Wide, 7*(1), 75–86.

Gutiérrez, K. D. (2008). Developing a sociocritical literacy in the third space. *Reading Research Quarterly, 43*(2), 148–164.

Hornberger, N. H., & Link, H. (2012). Translanguaging and transnational literacies in multilingual classrooms: A biliteracy lens. *International Journal of Bilingual Education and Bilingualism, 15*(3), 261–278. https://doi.org/10.1080/13670050.2012.658016.

Language Teaching. https://doi.org/10.1017/S0261444817000246.

Li, L., Zhao, S., & Yeung, A. S. (2012). Chinese language reform in Singapore: Teacher perceptions of instructional approaches and curriculum implementation. *International Journal of Bilingual Education and Bilingualism, 15*(5), 533–548.

PIRLS. (2016). *What makes a good reader: International findings from PIRLS 2016.* Retrieved from http://pirls2016.org/pirls/summary/

Rubdy, R. (2007). Singlish in the school: An impediment or a resource? *Journal of Multilingual and Multicultural Development, 28*(4), 308–324.

Shang, G., & Guo, L. (2017). Linguistic landscape in Singapore: What shop names reveal about Singapore's multilingualism. *International Journal of Multilingualism, 14*(2), 183–201. https://doi.org/10.1080/14790718.2016.1218497.

Singapore (revised 2010). *Constitution of the republic of Singapore, 1959.* Retrieved from http://extwprlegs1.fao.org/docs/pdf/sin132840.pdf

Singapore, Department of Statistics. (2017). *Education, language spoken and literacy.* Retrieved from https://www.singstat.gov.sg/find-data/search-by-theme/population/education-language-spoken-and-literacy/latest-data

Singapore, Department of Statistics. (2015). *Highlights of general household survey 2015*. Retrieved from https://www.singstat.gov.sg/-/media/files/visualising_data/infographics/ghs/highlights-of-ghs2015.pdf.

Singapore, Department of Statistics. (2010). *Singapore Census of population 2010, statistical release 1: Demographic characteristics, education, language and religion*. Retrieved from https://www.singstat.gov.sg/-/media/files/publications/cop2010/census_2010_release1/findings.pdf

Singapore, Prime Minister's Office. (2010). *Population in brief 2017*. Singapore: Publication by Strategy Group. Retrieved from https://www.strategygroup.gov.sg/media-centre/publications/article/details/statistic-booklet%2D%2D-population-in-brief.

Singh, S. (2011). *Language policy and Indian languages in Singapore.* [South Asian Soundings, Weblog of the Institute of South Asian Studies]. Retrieved from http://blog.nus.edu.sg/southasiansoundings/2011/11/28/language-policy-and-indian-languages-in-singapore/

Starr, R. L., et al. (2017). Third culture kids in the outer circle: The development of sociolinguistic knowledge among local and expatriate children in Singapore. *Language in Society, 46*(4), 507–546.

Tan, P. K. W., & Tan, D. K. H. (2008). Attitudes towards non-standard English in Singapore. *World Englishes, 27*(3/4), 465–479.

Tan, P. K. W. (2014). Singapore's balancing act, from the perspective of the linguistic landscape. *SOJOURN: Journal of Social Issues in South East Asia, 29*(2), 438–466.

Tang, H. K. (2018). Linguistic landscaping in Singapore: Multilingualism or the dominance of English and its dual identity in the local linguistic ecology? *International Journal of Multilingualism*. https://doi.org/10.1080/14790718.2018.1467422.

Vaish, V. (2008). *Biliteracy and globalization: English language education in India*. Clevedon: Multilingual Matters.

Vaish, V. (2018). Translanguaging pedagogy for simultaneous biliterates struggling to read in English. *International Journal of Multilingualism*, 1–16.

Vaish, V., & Subhan, A. (2015). Translanguaging in a reading class. *International Journal of Multilingualism, 12*(3), 338–357.

Wee, L. (2002). *Lor* in colloquial Singapore English. *Journal of Pragmatics, 34*(6), 711–725.

Wei, L. (2011). Moment analysis and translanguaging space: Discursive construction of identities by multilingual Chinese youth in Britain. *Journal of Pragmatics, 43*, 1222–1235.

Wei, L. (2018). Translanguaging as a practical theory of language. *Applied Linguistics, 39*(1), 9–30.

Williams, C. (1994). *An evaluation of teaching and learning methods in the context of bilingual secondary education*. University of Wales, Bangor: Unpublished Doctoral Thesis.

Wong, J. (2005). "Why you so Singlish *one*?" A semantic and cultural interpretation of the Singapore English particle *one*. *Language in Society, 34*(2), 239–275.

Zantella, A. C. (1997). *Growing up bilingual: Puerto rican children in New York*. Hoboken, New Jersey: Wiley-Blackwell.

Zhiming, B., & Min, L. H. (2005). Systemic transfer, topic prominence, and the bare conditional in Singapore English. *Journal of Pidgin and Creole Languages, 20*(2), 269–291.

Zhiming, B., & Aye, K. K. (2010). Bazaar Malay topics. *Journal of Pidgin and Creole Languages, 25*(1), 155–171.

(2016). *Channel NewsAsia.* Retrieved from http://www.channelnewsasia.com/news/singapore/primary-1-registration-to/1923958.html.

Chapter 3
Methodology 1: Translanguaging and the Classroom

Viniti Vaish

Abstract This chapter describes both the research projects which comprise the backbone of this book. The first was a baseline study of pedagogy in the Learning Support Program and the second a Proof of Concept, titled "Raise the **BAR** (Bilingual Approach to Reading)," tried out in three schools in which the typical monolingual pedagogy in the English class was disrupted to include translanguaging. The workshop provided for the teachers by the research team before they implemented translanguaging pedagogy is described in detail. The design of Raise the **BAR** is documented on a day-by-day basis. Finally the challenges faced by the research team are also acknowledged.

Methodology

The data in this book are primarily from two research projects in which I was the Principal Investigator. In both the research projects, I had the good fortune of working with a team of bilingual research assistants. Thus during the course of this book, I refer the whole team as "we." The first project, Building English Competencies in Bilingual Underachievers: A Baseline Study of Singapore's Learning Support Program (OER 28/08 VV), was an investigation of pedagogy in Singapore's Learning Support Program. The second project, "Use of First Language in Teaching and Learning Chinese and English" (OER16/11VV), attempted a Proof of Concept in the Learning Support Program (LSP), which entailed using a translanguaging approach to teach reading in English. The Proof of Concept also involved attempting to use English to teach Chinese in Chinese Mother Tongue classes; however, this part of the Proof of Concept is not included in this book. The baseline study of the LSP was completed in 2008 and the Proof of Concept in 2016. For easy reference, I will refer to the first study as "the baseline study" and to the second one as the "Proof of Concept."

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In the both the research projects, the classes in the Learning Support Program are referred to as "multilingual English classrooms." This phrase, which is also in the title of the book, is meant to be an inclusive term that captures the linguistic diversity in Singapore's classrooms. It refers to classrooms in an English medium school system where in one class there could be children from 4–5 different linguistic backgrounds. In the brief literature review provided below, I discuss the research of scholars who support bilingual language teaching in content areas (like science and math) and also research which is generally on including the home language of the child in the school system. Though the learning support classes analyzed in this book only teach English, I have also discussed scholars who recommend bilingualism to teach content as this could be a resource for Singapore, where all the core subjects are taught in English. There are numerous subject classes in Singapore, e.g., math and science classes, which are equally diverse regarding the language background of the children.

Monolingual vs Bilingual Pedagogy for ELLs

Garcia and Kleifgen (2010) review relevant literature to conclude that bilingual approaches, in which the child's home language is used, are more effective in teaching students to read than English-only approaches. In fact, learning to read in the home languages promotes reading ability in English. They write: "what is evident from this research is that the use of the students' home language is crucial for their long term cognitive growth and academic achievement in English."

It would not be efficient to refer to all the literature that Garcia and Kleifgen (2010) have already reviewed. However, one study merits a fuller discussion. In one of the largest-scale longitudinal studies, involving 210,054 students, Thomas and Collier (2001) described the variety of education services provided in the USA for language minority students and the long-term academic achievement of students in each of these types of programs. They focused on eight major program types:

- 90–10 two-way bilingual immersion (or dual language)
- 50–50 two-way bilingual immersion
- 90–10 one-way developmental bilingual education
- 50–50 one-way developmental bilingual education
- 90–10 transitional bilingual education
- 50–50 transitional bilingual education
- English as a second language (ESL) taught through academic content
- English mainstream

The way Thomas and Collier (2001) tracked the impact of language distribution in preschools on later academic achievement is noteworthy. They found that "English language learners immersed in the English mainstream because their parents refused bilingual/ESL services showed large decreases in reading and math achievement by Grade 5, equivalent to almost 3/4 of a standard deviation (15 NCEs),

when compared to students who received bilingual/ESL services". Thomas and Collier (2001) explain that a difference of 5 normal curve equivalents (NCEs) is a major difference that requires action on the part of the government. In fact, they found that both a 50–50 distribution of languages in preschool and a 90–10 distribution of languages (starting with 90% home language and 10% English leading up to a 50–50 distribution) were better for students' later English language achievement scores.

Thomas and Collier's (2001) is a longitudinal study evaluating the impact of bilingual vs monolingual instruction in preschools. The LSP, on the other hand, is a program starting in grade 1, and we do not have data on the type of preschools that the children attended before they entered primary school. We do know, however, that preschool attendance in Singapore is extremely high: according to a Lien foundation report, 99% of 6-year-olds who come to grade 1 have had at least 1 year of preschool education. At the same time, according to the same Lien foundation report, the quality of preschool education in Singapore is not as high as that in other developed countries like Finland and New Zealand. In a list of 45 countries ranked on the basis of 9 variables that define high quality in early childhood education, Singapore ranks 29th (Starting Well 2012). More importantly, not much is known about language distribution between English and Mother Tongue in preschools in Singapore.

Even in the later stages of a bilingual child's academic career, scholars recommend an approach that involves translanguaging (Celic and Seltzer 2011; Lin and Lo 2016). According to Celic and Seltzer (2011), translanguaging is an important pedagogic approach through which ELLs can access the common core curriculum in the USA. They emphasize that translanguaging is not merely a simple scaffold that can be removed as soon as the child becomes proficient in English. On the contrary, translanguaging is a sustainable practice that builds academic achievement and celebrates the identity of minority students. Their guide gives teachers of elementary, middle, and secondary school classes ideas regarding how to incorporate translanguaging in various disciplines. Their contention is that translanguaging aids in academic achievement. Specifically, translanguaging "offers bilingual students the possibility of being able to gather, comprehend, evaluate, synthesize and report on information and ideas using text-based evidence" (Celic and Seltzer 2011).

Similarly Lin and Lo (2016) emphasize the importance of dialogic interaction and translanguaging by analyzing data from two disparate grade 10 science classrooms. In these classrooms, the students, whose L1 was Chinese, were learning science in and through English, their L2. The teacher who used Chinese to connect scientific knowledge regarding "food substances" with the students' everyday world was deemed more effective than the teacher who used only English to teach content. The more effective teacher also used triadic dialogue (IRF instead of IRE) to elicit languaging from the students leading to a more interactive and engaged class.

Though the literature supports bilingual education at the preschool (Thomas and Collier 2001) and later (Celic and Seltzer 2011) stages in a child's academic career, this is not the case in Singapore. In Singapore the approach to teaching reading in learning support classes not only assumes that the students and the teacher are

monolingual English speakers, it is also based on assumptions of Second Language Acquisition. The approach ascribes an L1 and L2 to each child which not only essentializes hybridity but assumes that the home language of the child causes interference in English acquisition resulting in fossilized errors which must be removed through skills training. The reality is that most of the children in the LSP are simultaneous bilinguals and so are many of the teachers though their proficiency in each of their languages varies.

In a study of 30 fifth grade Spanish-English bilingual students working on a joint activity, Martin-Beltran (2010) raised exactly this point. The author pointed out the though SLA also looks at interaction as a way of language learning, the focus is on one-way learning of the target language and not two-way learning of more than one language. SLA conceptualized L1 and L2 as separate, sequential, and linear which is a problem in globalized cultural spaces like Singapore where individuals are simultaneous bilinguals. Though Cenoz and Gorter (2011) point to a new trend in SLA in which "the focus on the language per se has shifted to an increasing interest in the learner, the communicative interaction, and the context in which the interaction takes place" (pg. 357), this turn has yet to reach Singapore's classrooms.

Given the metrolingual languaging practices of young people in Singapore, the LSP needs an approach based on dynamic bilingualism or translanguaging. Metrolingualism is a term proposed by Otsuji and Pennycook (2010) to describe "the ways in which people of different and mixed backgrounds use, play with and negotiate identities through language; it does not assume connections between language, culture, ethnicity, nationality or geography, but rather seeks to explore how such relations are produced, resisted, defied or rearranged." Singapore's language in education policy tends to essentialize the ethnic group, language, and culture of students, whereas the globalized linguiscape of Singapore displays immense syncretism. Children in Singapore's schools come from homes where multiple languages are spoken in diverse registers by adults who themselves could be of mixed parentage. Also, as pointed out in Chap. 2 the nationality of one parent may not be Singaporean. These aspects lead to a "hyperdiverse" classroom which, as the later chapters will show, pose a challenge to the design of a translanguaging program.

The Research Projects:

In order to explore current pedagogy in the LSP and thereafter recommend changes to it, I initiated two research projects:

1. A baseline study of pedagogy in the LSP
2. A Proof of Concept to change pedagogy in the LSP

Five schools, listed in the first column of Table 3.2a, volunteered to participate in a baseline study of pedagogy in the LSP, which commenced in 2008 and was completed in 2011. A total of 19 hours of video data were collected from LSP classes in these five schools.

Table 3.2a documents the observations that were conducted in typical LSP classes.

In the second research study, we attempted a Proof of Concept using translanguaging in three other primary schools. Titled "Use of First Language in Teaching

Table 3.2a Summary of classroom observations in monolingual classes

Pseudonym of school	Hours of observations	Pseudonym of teacher	Tier within LSP
Qin Hua Primary	3.5	Ms. Ang Lim Sin	1
Jin Hua Primary	5	Ms. Pamela Fernandaz	2
Nan Xin Primary	3	Ms. Tan Sun Hee	
Hazelnut Primary	4	Ms. Lina Lim	
Everbest Primary	3.5	Ms. Siti	3
Total hours of observation	**19**		

Note: Since each lesson is for half an hour, 3.5 hours of observation for Ms. Ang Lim Sin means that we observed 7 lessons of Ms. Ang Lim Sin. Similarly 10 lessons of Ms. Pamela Fernandaz, 6 lessons of Ms. Tan Sun Hee, 8 lessons of Ms. Lina Lim, and 7 lessons of Ms. Siti were observed

and Learning Chinese and English" (OER 16/11VV), this project analyzed the use of Mother Tongue in teaching of English in LSP classes, and the use of English in the teaching of Chinese. For the purposes of this book, only data from the three schools in which LSP classes were observed have been analyzed. These schools have letter names (Schools W, F, and C) to distinguish them from the five schools in the baseline study. In schools W, F, and C, a new method was used called "Raise the **BAR** (Bilingual Approach to Reading)" in which Malay and Chinese were used judiciously and systematically to teach vocabulary, grammar, and discourse in English.

Before I move forward, a definition of the term "Proof of Concept" and how this is different from a formal intervention is imperative. Proof of Concept is a term used ubiquitously in the hard sciences like engineering but rarely in applied linguistics. It refers to a pilot study, essentially exploratory in design and outcomes, conducted to test out a concept. The advantage of a Proof of Concept is that in terms of design, its boundaries are more fluid than the boundaries of a formal intervention. For instance, a formal intervention would require a pre- and posttest which, given the nature of the children in the LSP, might not tell us much about the learning of these students. All children in the LSP are low achievers, and some even have special needs. Standardized testing for this cohort in reading will result in low numbers which would not add more to what we already know about these children.

My research design for the Proof of Concept was more organic, collaborative, and bottom-up and attempted to test the concept of translanguaging with low achieving students. The research design emerged as a result of repeated conversations with the principals and LSP teachers of schools W, F, and C. All three schools were keen to try translanguaging with their LSP students though each had slightly different concerns. For instance, in school W, since the majority of the students were of Malay ethnicity and Mdm Yati was a fluent Malay-English bilingual, we decided to focus on the Malay students. Also, Mdm Yati was confident about improvising regarding when and how she would bring in Malay to teach English. Also, Mdm Yati had been informally using Malay with her LSP students to help them learn English. On the other hand, Ms. Selene and Ms. Angela were entirely new to translanguaging pedagogy. They wanted to see some videos of how translanguaging was done before they attempted this new pedagogy. Also, though Mdm Yati preferred to

Table 3.2b Summary of classroom observations in schools where translanguaging was used

Pseudonym of school	Hours of observations	Pseudonym of teacher	Tier within LSP
School W	2.9	Mdm Yati	2
School F	4.7	Ms. Angela	
School C	6.3	Ms. Selene	
Total hours of observation	**13.9 (13 h and 54 min)**		

Note: Since each lesson is usually slightly less than half an hour, 2.9 h of observation for Mdm Yati means that we observed 8 of Mdm Yati's lessons, 18 lessons of Ms. Angela, and 16 lessons of Ms. Selene were observed

use the curriculum she was already using, Ms. Selene and Angela were keen to use the Ginn readers that we recommended. Thus for each of the schools, we tried to customize the research design in an organic and collaborative way while, at the same time, preserving the spirit of pedagogical translanguaging.

Table 3.2b gives details of the observations conducted in the three schools where translanguaging through Raise the BAR was introduced in the LSP classes. This project started in 2012 and was completed in 2015. A total of 13.9 h of video data were collected from three primary schools.

In total 33 h of video data, 18 h from the baseline study, and approximately 14 h from the Proof of Concept, have been analyzed in this book.

The participants included 8 teachers, 5 in the baseline study and 3 in the Proof of Concept, and approximately 75 students. Regarding the number of students, I can only provide an approximate number as there was a high level of absenteeism in the LSP classes, and in most of the classes, there were a few children who had not come to school. For instance, in School W, the pilot school, there were six students in the LSP class. However on days 2, 4, 5, and 8, there were only four students in class, and on day 7 there were five students. This kind of pattern was quite common in schools F and C also. All the students are in the LSP after they failed a reading test conducted by Singapore's Ministry of Education; thus they are all similar in terms of their low proficiency in reading in English. All the teachers in the LSP are trained by the Ministry of Education on how to teach reading skills to low proficiency students.

The LSP classes are hyperdiverse, meaning that in each class there are children whose homes are Mother Tongue dominant, children whose homes are Singlish/English dominant, and children whose homes are truly bilingual in that they hear Mother Tongue and English 50% of time. In addition, due to the high rate of marriages with foreigners in Singapore, many of the children in the LSP have one parent who speaks very little English. According to the Department of Statistics in Singapore, 36% of marriages in 2016 involved a citizen of Singapore marrying a foreigner (https://www.msf.gov.sg/media-room/Pages/Statistics-on-transnational-marriages.aspx). The implication of this statistic is that if the mother of the child is a non-Singaporean, for instance, from China, Malaysia, or India, this will change the linguistic ecology of the home. We do not have any survey data on the home languages of the children in the LSP class. A survey of the parents in the LSP was not possible due to budgetary and ethical concerns. Thus the information about

specific students' home language is from comments made by the teacher. As each class is extremely small, the teachers did know each of the students well and had met some of the parents.

Piloting Raise the BAR

I begin with the procedure undertaken in school W, as this was the pilot school for "Raise the BAR." School W is in an area with a Malay majority and most of the students in this school are of Malay ethnicity though there were a few students of Chinese and Indian descent. Many of them come from homes and communities which are highly Malay dominant. The LSP class in school W that was selected for piloting Raise the **BAR** had five Malay and one Chinese student.

Since the LSP teacher, Mdm Yati, was fluent in Malay and English, she volunteered to lead the group of Malay students. Ms. Cindy, a Chinese-English bilingual, would teach the sole Chinese student in this class in a separate room. After numerous meetings with the staff it was collaboratively decided that the child's dominant language would be used as a scaffold to aid comprehension and teach key vocabulary items during the reading of Loughead's (2006) story: *The Grasshopper and the Ant*. Since this was the first school where we were trying out a bilingual approach, we did not have videos on the basis of which we could train Mdm Yati. However, Mdm Yati expressed confidence in using a translanguaging approach as she was already using Google translator with some of her Chinese students in other LSP classes. Her view was that she would like to learn a systematic approach of using L1 to teach English. In an earlier part of this chapter, I have expressed concerns about the use of the terms L1 and L2 with simultaneous bilinguals. In school W, Mdm Yati, after 15 years of teaching experience, thought that the majority of children could be described as L1 Malay and L2 English. Since Mdm Yati wanted the flexibility of improvising for her students, we left it up to her as to when and how the L1 would be brought into the classroom as a scaffold. *The Grasshopper and the Ant* was a familiar text for the students as they had encountered it in their mainstream English class. During the course of the observations, the text was read to the students multiple times.

Implementing Raise the BAR

Schools F and C had a mix of mainly Chinese and Malay students with the exception of one class where there were two Indian students. In these schools, according to the teachers, there were some children who were English dominant though the majority of children came from homes where they mainly heard Mother Tongue. In collaboration with the school, we decided to focus on only the Chinese and Malay

student groups. For the duration of Raise the **BAR**, the two Indian students were assimilated into other LSP classes. Thus there are no Indian students in this study.

In all three schools, we adapted lesson plans, prescribed by Singapore's Ministry of Education, with ideas from the CUNY-NYSIEB (City University of New York-New York State Initiative on Emergent Bilinguals) framework and discussed this with the school and teachers before they agreed to execute these lesson plans. Developed by researchers in the City University of New York, the CUNY-NYSIEB is a guide regarding how translanguaging can be used in the classroom with bilingual children who have low literacy in the medium of instruction (Garcia et al. 2013). Specifically, we wanted to "scaffold the instruction for these students, ensuring that there is ample oral work and discussion of the academic concepts" (Garcia et al. 2013).

In schools F and C, the Proof of Concept ran for approximately 1 month during which four books were taught to the class with 1 week dedicated to each book (See Appendix for the list of books used in schools F and C). In both schools, the same literacy practices were conducted for about a month in 2013. In the first instance, the teachers identified a set of books they wanted to teach the class during the Proof of Concept. For each of these books, the research team and the LSP teacher together prepared detailed lesson plans which involved teaching key lexical items and targeting comprehension. All the books were familiar to the students. A set of leveled questions was prepared by the research team that the teacher or the Principal Investigator asked during whole class elicitation. The research team discussed these lesson plans with the teachers and revised the plans according to their suggestions. In keeping with the advice of the teacher, the Principal Investigator also taught some of the classes. The Principal Investigator, in this part of the methodology, was inspired by the benefits of dialogic reading during shared book approach (Lonigan and Whitehurst 1998). Though the shared book approach is a method used mainly with monolingual children, in Raise the **BAR**, it was customized to suit the needs of a bilingual cohort. Table 3.2c summarizes the training procedures and literacy activities in Raise the **BAR**.

Typically the teaching of each book involved 1 week of classes starting on a Monday and ending on Friday. During the Monday class, taught by the Principal Investigator in English, the children were asked factual and inferential comprehension questions. Though all eight books were familiar to the students, they were still confused about who the main characters were and what the plot was. The purpose of questioning was for the PI to ascertain the level of comprehension the students possessed.

Tuesdays and Wednesdays were bilingual days when translanguaging was encouraged. On these days a huge digital poster was flashed on a power point showing a child's head and "Mother Tongue ON" written on the side. The moment the children entered the classroom, they saw this large poster and knew that this particular LSP class was different from their usual classes and that in this class they could use their Malay or Chinese along with English. A bilingual approach was used to teach the more difficult vocabulary, grammatical structures, and comprehension questions. At these junctures the class was divided into smaller groups based on

Table 3.2c Training and literacy activities for raise the **BAR**

Training	
Phase	Activity
Phase 1: 1 week	Identifying the books that the school wanted to use during the proof of concept
	Deciding how the class would be divided into bilingual groups
	Separating the Indian students (because these were too few)
Phase 2: 2–3 weeks	For all the books the PI prepared lesson plans in keeping with the prescribed curriculum
	Lesson plans were revised in collaboration with the teachers
Phase 3 (only for schools F and C): 1 week	Videos of how the teacher can use two languages to teach were shown to the teachers. The video was from school W
	It was decided that the PI would teach some of the classes as the LSP teachers were not so confident
Phase 4 (only for schools F and C): 2 weeks	Classroom materials were prepared by the PI and research assistant. These included:
	Digital pages of the books to be flashed on a power point
	Props for the PI to use like moustaches, glasses, laundry basket, etc.

Schedule of literacy activities in raise the BAR			
Day of the week/ (arrangement)	Activity	Led by	Language
Monday (whole class)	Asking questions to elicit the level of comprehension students already possess	PI	English only
Tuesday (bilingual groups)	Teaching specific vocabulary and grammatical items	LSP teacher and bilingual research assistants	Translanguaging
Wednesday (bilingual groups)	Teaching specific vocabulary and grammatical items	LSP teacher and bilingual research assistants	Translanguaging
Thursday (whole class)	Demonstration of oral retelling using theatrical props and digital pictures from the text	PI	English only
Friday (whole class)	Students gave an oral retelling of the story using props and digital pictures from the text	Students	English only

whether the children came from Malay- or Chinese-speaking homes. Each group was led by a bilingual teacher, one of whom was the LSP teacher herself. In both schools the LSP teacher was Chinese and she led the Chinese-English bilingual group. The Malay-English bilingual group was conducted by the lead research assistant for this project who is fluent in both languages. On each Thursday, the Principal Investigator gave an oral demonstration of the how the story could be retold in English only. On this day the digital poster with "Mother Tongue ON" was not flashed on the power point. The practice of modeling was requested by the LSP teachers who felt that since this literacy task was unfamiliar and difficult for their

students, the Principal Investigator should first offer a demonstration. The demonstration/performance was set up in the form of a picture elicitation task in which the research team used digital pictures flashed on a power point as a stimulus. For each storybook, we deleted the prose text and converted each page into a digital picture. On some of the digital pages, we inserted the key vocabulary items that the children were taught during the reading of a specific story. To support the oral retelling, the Principal Investigator also used props like moustaches, glasses, etc. and used her background in theater to entertain and engage the students.

Raise the **BAR** was profoundly disruptive. Language learning in Singapore, despite a bilingual education policy, is based on the concept that the bilingual is two monolinguals in one. Both the English classes and Mother Tongue classes are largely conducted without any hybrid language practices. Raise the **BAR** disrupted the traditional approach to language learning and introduced translanguaging as a new pedagogy. In her introduction to this book, Lin has commented that "Translanguaging pedagogies can be differentiated as spontaneous or planned. However, these are best conceived as lying on a continuum rather than as strictly binary options" (pg -1-). Our experience during the Proof of Concept substantiated this comment. Though we came into the schools with plans regarding how translanguaging could be systematized, the teachers took it upon themselves to choose the moments when the distribution of languages in the class could be altered. As this book will show, though some of these decisions were spot on, some did not result in the desired learning outcome.

Garcia and Kleifgen (2010) explain that development in a bilingual is not linear but dynamic. The difference is that in a linear conception of bilingualism, languages are autonomous units in a bilingual's brain. However, in actual fact, the brain of a bilingual is like an all-terrain vehicle (ATV). An ATV can have three or four or more wheels and can be maneuvered over many types of terrains. Thus an ATV is different from a monocycle or a bicycle. In other words the brain of a bilingual has been conceptualized like a bicycle with the two wheels representing two languages whereas it functions more like an ATV. Gracia and Kleifgen (2010) recommend that "Effectively educating emergent bilinguals, even in programs that teach through the medium of English, must include and support the dynamic bilingual practices by which bilinguals construct knowledge and understandings."

The authors discuss the differences between code-switching and translanguaging by pointing out that translanguaging includes code-switching. However, there are certain practices within the broader term, translanguaging, that are not available in the relatively limited term, code-switching. For instance, the literacy practice where the teacher in explaining a concept in English and the students are taking notes in another language cannot be called code-switching. This literacy practice is clearly one that demonstrates the nonlinear development of biliteracy in two languages and comes under the broader term translanguaging. During the course of data analysis, I will take this discussion of the difference between code-switching and translanguaging further. I will demonstrate that though methodologically there are many limitations in the way code-switching has been used to analyze bilingual transcripts, a few basic methods are still relevant and that the concept of translanguaging is open to more hybrid methodologies of coding.

Appendix: List of Books Used in Schools

School W

Title of book	Key vocabulary words	Number of pages	Number of words in book
The Grasshopper and The Ant	Much	16	70
	All		
	Whole		

School F

Title of book	Key vocabulary words	Number of pages	Number of words in book
Liz and Digger	–	16	69
Can We Help	Gardening	16	82
	Mowing		
	Weeding		
	Bed of flowers		
	Hose		
	Stumble		
	Twisted		
	Postman		
I Can Hide	Curtain	16	105
	Hide and seek		
	Liz's friend		
	Bucket		
	Painting		
	Laundry basket		
	Mother's room		
	Computer		
	Climbing up		
	Garden		
	Branch		
	Problem		
	Under		

School C

Title of book	Key vocabulary words	Number of pages	Number of words in book
Chicken Rice	Hate	16	242
	Like		
	Than		
	Tasty		
	Friend		
	Terrified		
	Terrible		
Big Hungry Bear	Ladder	31	148
	Strawberry		
	Pick		
	Trembling with fear		
	Hidden		
	Nails		
	Locked		
	Disguised		
	Hidden under the blanket		
	Half		
	The problem was		
	Mouse had picked		
	Was coming		
	Ate		
	The solution was		
There's a Nightmare in My Closet	Used to be	28	153
	Before		
	Always		
	Sometimes		
	Decided		
	As soon as		
	Foot of the bed		
	Quickly		
	Was		
	Took		
	Tucked		
	Closed		

Title of book	Key vocabulary words	Number of pages	Number of words in book
A Butterfly is Born	Flower	16	162
	Beautiful		
	Nectar		
	Hatches		
	In a few days		
	Eggshell		
	Caterpillar		
	Branch		
	Pupa		
	Crumpled		
	In a few hours		

References

Celic, C., & Seltzer, K. (2011). *Translanguaging: A CUNY-NYSIEB guide for educators*. New York: The Graduate Center, CUNY.

Cenoz, & Gorter. (2011). Focus on Multilingualism: A study of trilingual writing. *The Modern Language Journal, 95*(3, Special Issue: Toward a Multilingual Approach in the Study of Multilingualism in School Contexts (Fall 2011)), 356–369.

García, O., & Kleifgen, J. A. (2010). *Educating emergent bilinguals: Policies, programs, and practices for English language learners*. New York: Teachers College Press.

García, O., Herrera, L., Hesson, S., & Kleyn, T. (2013). *A CUNY-NYSIEB framework for the education of emergent bilinguals with low home literacy: 4–12 grades*. New York: The Graduate Center, CUNY.

Lin, A. M., & Lo, Y. Y. (2016). Trans/languaging and the triadic dialogue in content and language integrated learning (CLIL) classrooms. *Language and Education*. https://doi.org/10.1080/09500782.2016.1230125.

Lonigan, C. J., & Whitehurst, G. J. (1998). Relative efficacy of parent and teacher involvement in a shared-reading intervention for preschool children from low-income backgrounds. *Early Childhood Research Quarterly, 13*(2), 263–290.

Loughead, A. (2006). *The grasshopper and the ant*. Markham: Scholastic.

Martin-Beltran, M. (2010). The two-way language bridge: Co-constructing bilingual language learning opportunities. *The Modern Language Journal, 94*(2), 254–277.

Otsuji, E., & Pennycook, A. (2010). Metrolingualism: Fixity, fluidity and language in flux. *International Journal of Multilingualism, 7*(3), 240–254. https://doi.org/10.1080/14790710903414331.

Starting Well. (2012). *Benchmarking early childhood education across the world* (A report from the Economist Intelligence Unit). Commissioned by Lien Foundation.Pdf. Available at http://www.lienfoundation.org/sites/default/files/sw_report_2.pdf

Thomas, W. P., & Collier, V. P. (2001). *A national study of school effectiveness for language minority students' long-term academic achievement* (Final Report). Retrieved from http://files.eric.ed.gov/fulltext/ED475048.pdf

Chapter 4
Methodology 2: Coding Bilingual Transcripts

Viniti Vaish

Abstract All coding procedures used on the approximately 23 h of video data collected for the two research studies are described and discussed in this chapter. The coding categories are amount of talk, Mean Length of Utterance (calculated for words and morphemes), contexts for translanguaging, questioning patterns, interactional patterns, lexical density, and episodic structure (story grammar). Finally, in cases where the coding category is controversial, e.g., Mean Length of Utterance, I share the challenges in using this variable and justify why this code was used on the data.

Introduction

The 19 h of video data from the baseline study and the 14 h of video data from the Proof of Concept were fully transcribed and translated. Thereafter the data bank of transcripts was coded by the team of full-time and part-time bilingual research assistants for quantity and quality of talk. The codes that measure quantity of talk were amount of talk and Mean Length of Utterance. In the latter category, i.e., quality of talk, we coded for number and types of questions in teacher and student talk and motivations and contexts for translanguaging and tried to find patterns in interaction. Finally the 22 oral retellings performed by students in the last week of the Proof of Concept classes were coded for lexical density and episodic structure, which was a more in-depth analysis of quality of talk. The entire coding took place over a span of 3 years and the phases were as follows:

In the first instance, bilingual research assistants coded the transcripts for **Quantity of Talk**:

- Amount of talk (number of English, Malay, and Chinese words)
- Mean Length of Utterance (MLU)

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Thereafter the transcripts were coded for **Quality of Talk**:

- Motivations and contexts for translanguaging
- Number and types of questions in student and teacher talk
- Interactional patterns

Finally we coded the oral retelling of stories by students in schools F and C. The stories, which were in English only, were coded for:

- Amount of talk (number of words)
- Lexical density (number of content words)
- Episodic structure (elements of story grammar)

Not all the 23 h of data were coded for every single code or variable. Specifically the baseline study was coded for amount of talk, MLU, questioning patterns, and interactional patterns. The Proof of Concept was coded for all these and motivations and contexts for translanguaging. The oral narratives produced by the children at the end of the Proof of Concept were coded for lexical density and episodic structure.

I will now discuss each of these coding categories in detail and conclude this section with a discussion of the challenges we faced regarding specific languages that we have coded in our dataset.

Amount of Talk

The rationale for coding amount of talk was based on research conducted by Hart and Risley (1995). In a longitudinal study of 42 families, Hart and Risley (1995) compared amount and richness of parent talk across three socioeconomic groups: professional, working-class, and welfare parents. They followed children in these 42 families for 2.5 years from the time they were 10 months of age to 36 months. Through intensive coding of parent-talk, they found that parents who were professionals uttered more words per hour on an average to their children, displayed greater lexical density (used more types of words), used more complex sentences (e.g., multiclause sentences), and displayed more affirmation (praise, encouragement, affective speech), as compared with working-class parents and parents on welfare. As a result children at the age of 3 from professional families uttered more words per hour on an average and displayed richer vocabulary and sentence structure compared to their peers from the other two groups. All these language skills, especially vocabulary, are measures of expressive language which are correlated with later reading achievement.

The Hart and Risley (1995) study has been critiqued for essentializing social class and glorifying deterministic language outcomes. From a theoretical and methodological point of view, the Hart and Risley (1995) study has been critiqued on the basis of sampling (the sample size for the low SES children was very small, and all of them except one were African American children living in Kansas City) and a pseudo-scientific method of counting words to indicate amount of language learned while neglecting more holistic aspects of language acquisition like narratives

(Michaels 2013; Dudley-Marling and Lucas 2009; Dyson 2015). Most importantly, the existing cultures of the low-income families were ignored by Hart and Risley (1995). My interest, however, is purely on adapting some of their coding methods to make sense of my data. There are no conclusions about social class on the children in this study as we do not have any data on their household income, housing type, parents' occupation, etc.

Like Hart and Risley (1995), I value an increase in amount of talk though in our case we are looking at the impact of dialogic reading and translanguaging on students. My assumption is that when amount of talk for emergent bilingual increases, they are better able to demonstrate that they have learned new vocabulary, syntactical structures, and discourse features. Increasing amount of talk is also related to the Asian context in which this book is situated. Singaporean children, and, indeed, children in many Asian countries, are known to learn without talking too much in class. As the ensuing chapters will demonstrate, the Mean Length of Utterance of the children in the LSP is lower than other children of their age.

Mean Length of Utterance

Mean Length of Utterance (MLU), defined as the number of words and morphemes in spontaneously occurring utterances, is a robust indicator of language acquisition in both typically developing children and those with speech and language impairment. It was popularized by Brown's (1973) study in which he calculated the MLU of monolingual English-speaking children. In a large-scale longitudinal study by Rice et al. (2010), a sample of 306 monolingual English-speaking children, which included both typically developing and children with speech and language impairment, was examined. The procedures Rice et al. used to collect speech samples from the subjects resembled laboratory settings where children were given toys, and they were supposed to talk about the toy to the examiner. The key finding of this study was that though there was growth in MLU for both the normal children and those with speech and language impairment, the gap between these two groups remained consistent. Also, children of better educated mothers did not show more growth in MLU than their peers.

For older children, e.g., children 7–8 years of age, MLU is not considered as appropriate a measure of language acquisition as Brown (1973) found that MLU is not valid after about 4 years of age. For instance, in the study by Jiménez et al. (2006), 16 primary school (7–8 year olds) Spanish-English bilingual students were observed during shared book interactions. All except two students came from Spanish dominant families. The two exceptions were from English dominant families. I was interested to note that all utterances with code-switching were discarded by Jiménez et al. (2006). Regarding MLU Jiménez et al. (2006). found that though before the intervention parents used few dialogic reading strategies, at the end of the intervention they were making connections between the text and personal experiences and asking higher-order questions. At post intervention children used a larger

number of word types and demonstrated longer utterances when measured by the number of words they produced per turn.

The rationale for Jiménez et al. (2006) calculating MLT (Mean Length of Turn) rather than MLU (Mean Length of Utterance) was the age of the children. Since their study was on older children who had gone past the age for morpheme acquisition, the authors thought that MLU was not an appropriate measure for their subjects.

Though students in our study are 6–7-year-olds, only a year younger than in Jiménez et al.'s (2006) study, we have chosen to calculate MLU with this cohort because they have still not acquired most morphemes in English like plural and past tense. In fact, targeting the plural and past tense morphemes in English was a focus of some classes where translanguaging was used, as I will discuss in the chapters on findings.

Numerous studies (Rice et al. 2010; Hickey 1991; Brown 1973) have found a strong correlation between age and development in MLU. The 6–7-year-old children in our study are similar in their development to much younger children who are in the process of acquiring morphemes in English. In fact the MLU outcomes for the children in our study are comparable to the Singaporean preschoolers studied by Eng (1994). Eng calculated MLU in English for 59 Singaporean preschoolers with a mean age of 59 months and found outcomes ranging from 3.76 to 3.83. These numbers are similar to our outcomes for older children in the LSP class. Thus the fact that our LSP students were weak readers and had low proficiency in English was one reason we decided to calculate MLU for them despite their age.

We calculated a child's Mean Length of Utterance (MLU) using both the transcripts and the corresponding videos. The reason for using the videos also was to make sure that fillers like "ah," "um," etc. could be checked for intonation. In case the filler had meaning, it was included in the total count of words; otherwise it was discarded. The total number of words and morphemes produced by each student was counted from a random selection of 50% of all the transcripts. This was then divided by the total number of utterances produced by each child. The utterances could be in only English, only Malay, only Chinese, or translanguaged.

Unlike Jiménez et al. (2006), we did not discard the translanguaged utterances; instead we calculated their MLU. In fact Yip and Matthews (2006) and Bedmore et al. (2010) also discarded code-switched utterances from their data set. Though all these studies were on MLU, the authors reported MLU in two languages separately. In our data analysis translanguaged utterances were treated exactly as if that utterance was in one language. One reason for this was that we had practically no utterances in only Malay or only Chinese. The ones we did have were extremely brief consisting of one or two words. Because the children in the LSP class produced very few utterances, were very similar in terms of their output, and each utterance was extremely brief, the MLU of all the children in one class was averaged to one number that represented the MLU of that class. Thus for schools F and C, we have 2 MLU values for each class: one for English and one for translanguaged utterances. We do not have an MLU value for only Malay or only Chinese.

Since our focus was on Malay-English and Chinese-English bilingual children, we tried to find all the papers on MLU in Malay and Chinese. Though Chinese was

fairly well represented in the literature on MLU, we found only one paper in which MLU was calculated for Malay. Razak et al. (2016) calculated the MLU and discourse complexity of 130 Malay children ranging in age from 1 to 7 in Malaysia. The subjects were bilingual and came from homes where Malay was used 80% of the time. After analyzing nearly 9585 Malay utterances from these 130 children, the authors created five stages of language development and described the profile of children in each of these stages. They also calculated the MLU of these subjects which ranged from 1.05 for the 1-year-olds till 2.62 for the 6–7-year-olds. Data were collected through free conversation, story retelling, and narrating personal experience. The results reported in Razak et al. (2016) are only for Malay as bilingualism was not a focus area for the authors.

Though calculating the number of words and morphemes in Malay did not pose a problem, doing the same for Chinese was a challenge. Yip and Matthews (2006), who calculated the MLU of five Cantonese-English bilingual children, in order to make decisions on their language dominance, discussed issues of comparability between Cantonese and English. They commented that agglutinating languages, like Turkish, which have numerous morphemes attached to a stem, will result in a higher MLU when compared with isolating languages like Cantonese. Though comparing MLU across languages is fraught with problems, Yip and Matthews (2006) contend that this measure can be used to compare the two languages within one bilingual.

Cheung (n.d.) in an unpublished paper from the National Taiwan University calculated the MLU of five Taiwanese children who were Chinese dominant on the basis of words and syllables. He found a high correlation between MLU counted as words and MLU counted as syllables with the age of children. While counting words, Cheung did come across a few bound morphemes, which he counted as separate words. Cheung counted repeated words, names of places and persons only once, which is a practice we have followed.

Hickey (1991) made a similar point in her study of young children learning Irish. She recommended: “It seems advisable to regard MLU as purely intralinguistic device, allowing comparisons of the same child’s language over time, and between children acquiring the same language” (pg. 569). In keeping with these recommendations, our study does not focus on a comparison between the MLU of the Chinese children vs the Malay children. Rather our focus is on what happens to the MLU of two groups of bilingual children (Malay-English and Chinese-English) when the pedagogy changes from monolingualism to translanguaging.

In our coding, the MLU, counted for both words and morphemes in English, Malay, and Chinese, is reported as an aggregate for the entire class of approximately ten students. Our goal in reporting MLU values is not to show language dominance, as Yip and Matthews (2006) have done for their five Cantonese-English bilingual subjects, but to investigate if the children in our study talk more when opportunities for translanguaging are made available to them.

In concluding this section on MLU, I want to emphasize that we were fully cognizant of the limitations of MLU as a variable to measure how bilingual a child is. The shortcoming regarding age has already been justified. The specific shortcoming

regarding pairs of languages with different attributes needs further clarification. I have already discussed Yip and Matthews' (2006) concern regarding calculating MLU for Cantonese and English. A similar concern was raised by Otwinowska et al. (2018) who calculated MLU for Polish-English bilingual preschoolers through oral narratives. Otwinowska et al. (2018) pointed out that Polish is a pro-drop language, and in grammatically correct utterances, the MLU for Polish-English bilingual children can be lower for Polish than for English. Thus morpho-syntatic differences between languages can inflate or deflate MLU results.

However, despite these shortcomings, both Yip and Matthews (2006) and Otwinowska et al. (2018) use MLU as one of the measures in their studies. Similarly MLU is one of the many measures used in this book to estimate whether children during translanguaging talk more than when they use English only.

In this book the MLU of monolingual vs bilingual classes have been compared using a within-schools methodology. LSP classes in the three schools where the Proof of Concept (W, F, and C) was conducted were observed during monolingual and translanguaging pedagogy. The MLU comparison is thus for the same students in each school during monolingual vs translanguaging pedagogy.

Motivations and Contexts for Translanguaging

In the process of ascribing motivations for translanguaging, we ran into a basic methodological problem: is it at all possible, in the utterances of a bilingual, to ascribe a specific motivation to every minute switch? Though this might be possible while analyzing teacher talk, because teachers are purposeful talkers, we could only speculate about the reasons for this in the utterances of emergent biliterates who are weak in English. The current movement in the literature on bilingualism from "code-switching" to more holistic concepts like translanguaging, "codemeshing" (Canagarajah 2011), and metrolingualism (Otsuji and Pennycook 2010) helped us solve this problem. In keeping with this current movement in the literature, we have analyzed "Exchanges" which refers to a section of continuous utterances in the transcript (a more detailed explanation of what is an Exchange is given under the heading "Interactional Patterns"). We have not analyzed utterances which have been taken out of context. Thus, methodologically, we moved from a code-switching approach, which typically analyzes data utterance by utterance, to an approach influenced by translanguaging, which analyzes data in a more holistic manner.

The challenges we faced during coding mirror the experience of Sayer (2013) who reported that he started data analysis, in an ethnographic study of a grade 2 class where the teacher and students translanguaged between Spanish and English, by initially trying to figure out which language was used by the interlocutors for which purpose. "This approach proved problematic because, with the exception of a few functions, most interactions were unconstrained in that participants could (for the most part) freely choose from across their linguistic repertoire" (Sayer 2013). Thus Sayer found it more constructive to use the concept of translanguaging because

this new concept did not restrict the researcher into the straitjacket of ascribing labels to utterances. Rather, translanguaging is conducive to a holistic analysis of bilingual transcripts where the researcher can analyze large chunks of discourse according to meaning and not divide it up on the basis of languages or separate utterances.

Questioning Patterns

Transcripts were coded using Myhill's (2006) typology for the form of a question: factual, speculative, procedural, or process. In choosing exactly what constitutes a question, Burns and Myhill's (2004) methodology was used in which an utterance which required a response was coded as a question. In other words, the difference between a question and a statement is that a question requires a response (whatever the grammatical form of that utterance might be) and a statement does not. Factual questions, also called closed questions, are those which require a predetermined answer and usually elicit recall of information already provided to students. Speculative questions, also called open-ended questions, elicit "opinions, hypotheses, imaginings, ideas" (Myhill 2006). Procedural questions relate to the management of a lesson, for instance, can you all see? Finally, process questions ask students to explain their thinking, for instance, how did you work that out? In summary, four main codes were used to categorize the data bank of questions asked by teachers and students: factual, procedural, speculative, and process.

In comparing questioning patterns between monolingual and bilingual classes, an across- schools method has been used in this book. The monolingual classes have been taken from the baseline study, and the bilingual classes are from the three schools where translanguaging was attempted. Though the schools, students, and teachers are different, all the classes are from the LSP program where students are streamed after a nationwide test. Thus all the students are similar in terms of their low proficiency in reading skills in English.

Interactional Patterns

The 19 h of video data from the baseline study and 14 h from the Proof of Concept resulted in a huge data bank of transcripts. While these transcripts were being coded for minute details, e.g., number of Malay words vs number of English words in teacher talk, we also coded holistically to see if there were Exchanges, or specific units of larger transcripts, which addressed our research questions. The resulting Exchanges are a measure of quality of discourse. In using the term "Exchange," I am following the work of Nystrand (1997) whose book analyzes an equally large data set of transcripts drawn from secondary school classrooms in the USA. Nystrand used the term "episode" where an episode is a section of a transcript with distinct

boundaries which can be categorized under a specific code. Though Nystrand's "episode" is useful, I prefer "Exchange" as this term is less literary than "episode." The main codes used to mine the data for this book and cull a set of Exchanges were:

- Translanguaging to teach vocabulary in English
- Translanguaging to teach comprehension in English
- Translanguaging to teach grammar in English
- Using higher order questions (speculative and process questions)
- Translanguaging in student talk that displays higher MLU/better comprehension

As these are high inference codes, we met regularly as a team to check for agreement on slotting exchanges into specific categories. Though we did not calculate an inter-rater reliability figure as this would not be meaningful for such high inference categories, we focused on discussing why a particular Exchange fit or did not fit a specific code. The easiest code was "translanguaging to teach vocabulary," and the most contested was "translanguaging in student talk that displays higher MLU/better comprehension." Despite the fact that the latter is a high inference code, this final category was the most important as it was a way of discussing the outcomes of translanguaging, as no standardized testing was conducted in these research projects. The only way the researchers could make some judgments about the outcomes of translanguaging pedagogy was through evidence displayed in student talk.

Our data set is unusual in that it contains transcripts in three languages: English, Malay, and Chinese. Unlike Sayer (2013) who counts TexMex as a separate language I have not listed Singlish as a language separate from English. The reasons for this are both theoretical and methodological. Theoretically Singlish and English are on a diglossic continuum with Singlish being the L variety of Standard English which is the H variety (Ferguson 1959). Thus I do not consider it to be a separate language just as the low varieties of Tamil and Arabic are not separate languages. Also, considering Singlish to be a separate language was not efficient methodologically as it was impossible to decide where, within an utterance, Standard English gives way to Singlish or vice versa. In other words the point at which languages are switched within an utterance or even within a word is easy to identify when the researcher is dealing with disparate languages. However, in the case of Singlish and English, the researcher would be forced to make extremely high inference judgments which are not only inadvisable but also not in keeping with the spirit of translanguaging which discourages the researcher from pointing to junctures of switches.

Translanguaging scholars make a similar point when they distinguish between monolingual speakers who speak two varieties of the same language, e.g., Singlish and English, and bilinguals. "Bilingual speakers use language differently from multidialectal, monolingual speakers. Although all speakers use language differently, bilinguals have more choices to make because their language repertoires include many more language features. Language features include, for example, phonemes (sounds), words, morphemes (word forms), nouns, verbs, adjectives, tense systems, pronoun systems, case distinctions, gender distinctions, syntactic rules, and

discourse markers (e.g. marking transitions, information structure)" (Garcia et al. 2017, pg. 18). Thus a variety like Singlish cannot carry the weight of a separate language and must be seen as such in the coding of bilingual transcripts. At the same time, the L variety of Standard English, as marker of identity and social class, and for all the symbolic and affective weight it carries for Singaporeans, is an integral part of the linguistic ecology of Singapore. For the reasons discussed above, and given the research focus of the present study, only English, Chinese, and Malay languages are coded in the transcripts.

In order for the entire team to understand all the transcripts, each audio recording had to be transcribed and translated. For the English-Malay transcripts, this was not a problem as Malay is written in the Roman script; however, for transcripts with Chinese, the Chinese words also had to be transliterated. We decided not to use Chinese characters because Chinese orthography was not a focus of either teaching or learning.

Lexical Density and Episodic Structure

A total of 22 oral retellings by eight students were coded in this section. In the first instance, the number of words uttered by each student in each performance was documented as a measure for "amount of talk." Thereafter we calculated lexical density on the basis of the number of verbs, adjectives, nouns, and adverbs, considered to be content words, uttered by each individual. The term "lexical density" is also referred to as "vocabulary diversity" by some scholars, e.g., Price et al. (2009). However both the terms refer to richness of vocabulary. In this phase of the coding, the researchers also kept in mind the uptake of new vocabulary items which were being targeted by the teacher for each of the eight books. Thus we also looked out for whether or not the children were using the new vocabulary they had recently. The total number of content words in each performance was taken to be a measure of lexical density.

Finally, the transcripts were coded for episodic structure, also called elements of story grammar in the literature. Though scholars like Shrubshall (1997), Gutierrez-Clellen (2002), Fiestas and Pena (2004), Pearman (2008), and Kim et al. (2011) use similar methods in terms of coding the broad concept of the elements of story grammar, they differ somewhat on exactly which elements they choose to code. Some researchers, like Schick (2015), do not mention exactly what they coded in elements of story grammar. Keeping in mind the categories used by scholars in the review of literature and the data collected in this project, we coded for the following categories of story grammar: setting, description of action, identification of problem, resolution, and, finally, the motivation and reaction of characters. An expository book, *A Butterfly is Born*, was also taught in school C. The oral retellings of this book were coded differently as an expository book does not have the same elements of story grammar that a story has. Oral retellings of the expository book were coded for amount of talk and lexical density just like the oral retellings of story books.

However, regarding episodic structure, we coded for only two elements: description of action and articulation of sequence of events. These categories of story grammar were both a result of grounded analysis and inspired by the review of literature.

Moss (1997), who also assessed oral retellings qualitatively, used a different method of scoring the discourse of first graders. Moss' focus was on exposition and not narrative story books. In a study of 20 first graders retelling an information book on the birth and development of kittens, Moss scored the retellings on the basis of 5 levels. Titled "richness of scale" the 5th, or most successful level, was one in which:

> Student includes all main ideas and supporting details; sequences properly; infers beyond the text; relates to own life, understands text organization; summarizes; gives opinion and justifies it; MAY ask additional questions; very cohesive and complete retelling.

The most unsuccessful retelling was one in which:

> Student gives details only; poor sequencing, irrelevant information, very incomplete retelling. (Moss 1997, pg. 4)

Due to the fact that all the students in the LSP were weak readers, I did not think it advisable to have a scoring system like the one provided by Moss (1997) which might place most of the students at the bottom of the scale. Thus comparing each student against his/her own previous performance was a more constructive way of approaching the coding.

Conclusion

Thus the transcripts have been mined for amount of talk, Mean Length of Utterance, motivations for translanguaging, questioning patterns, lexical density, and episodic structure. What do all these coding categories have to do with translanguaging or translanguaging pedagogy? All these categories or codes are indicators of enhanced language learning. For instance, a higher MLU means that the child produced more words and morphemes on an average per utterance. Similarly a higher lexical density means that the child had a richer vocabulary. One of the premises of the book is that translanguaging provides a better language learning environment, for the specific type of learner we encounter in the LSP, than a monolingual class. If translanguaging is indeed so beneficial, then there should be a significant increase in MLU, amount of talk, lexical density, and episodic structure for the children in the Proof of Concept classes. This book will demonstrate there were, indeed, improvements in some of these categories. However, there was no change in others, and in a few, the quantitative numbers actually show a decrease. These mixed results are discussed in the ensuing chapters with reflections on possible reasons for these outcomes.

References

Bedmore, L. M., Pena, E. D., Gillam, R. B., & Ho, T.-H. (2010). Language sample measures and language ability in Spanish-English bilingual kindergartners. *Journal of Communication Disorders, 43*, 498–510.

Brown, R. (1973). *A first language*. Cambridge, MA: Harvard University Press.

Burns, C., & Myhill, D. (2004). Interactive or inactive? A consideration of the nature of interaction in whole class teaching. *Cambridge Journal of Education, 34*(1), 35–49.

Canagarajah, S. (2011). Codemeshing in academic writing: Identifying teachable strategies of translanguaging. *The Modern Language Journal, 95*(3), 401–417.

Cheung, H. (n.d.) *Utterance length and the development of Mandarin Chinese*. http://ntur.lib.ntu.edu.tw/bitstream/246246/2006092712313094524 7/1/000000000009.pdf

Dudley-Marling, C., & Lucas, K. (2009). Pathologizing the language and culture of poor children. *Language Arts, 86*(5), 362–370.

Dyson, A. H. (2015). The search for inclusion: Deficit discourse and the erasure of childhood. *Language Arts, 92*(3), 199–207.

Eng, A. L. S. (1994). Language use among Singaporean preschool children. *Singapore Journal of Education, 14*(2), 541–565.

Ferguson, C. A. (1959). Diglossia. *WORD, 15*(2), 325–340. https://doi.org/10.1080/00437956.1959.11659702.

Fiestas, C. E., & Pena, E. D. (2004). Narrative discourse in bilingual children: Language and task effects. *Language, Speech, and Hearing Services in Schools, 35*(2), 155–168.

Garcia, O., Johnson, S. I., & Seltzer, K. (2017). *The Translanguaging classroom: Leveraging student bilingualism for learning*. Philadelphia: Calson.

Gutierrez-Clellen, V. F. (2002). Narratives in two languages: Assessing performance of bilingual children. *Linguistics and Education, 13*(2), 175–197.

Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: Brookes Publishing.

Hickey, T. (1991). Mean Length of Utterance and the acquisition of Irish. *Journal of Child Language, 18*, 553–569.

Jiménez, T. C., Filippini, A. L., & Gerber, M. M. (2006). Shared reading with Latino families: An analysis of reading interactions and language use. *Bilingual Research Journal, 30*(2), 431–452. https://doi.org/10.1080/15235882.2006.10162884.

Kim, Y. S., Kang, J. Y., & Pan, B. A. (2011). The relationship between children's spontaneous utterances during joint bookreadings and their retellings. *Journal of Early Childhood Literacy, 11*(3), 402–422.

Michaels, S. (2013). Déjà Vu all over again: What's wrong with Hart & Risley and a "Linguistic Deficit" framework in early childhood education? *Learning Landscapes, 7*(1), 23–39.

Moss, B. (1997). A qualitative assessment of first graders' retelling of expository text. *Reading Research and Instruction, 37*(1), 1–13.

Myhill, D. (2006). Talk, talk, talk: Teaching and learning in whole class discourse. *Research Papers in Education, 21*(1), 19–41. https://doi.org/10.1080/02671520500445425.

Nystrand, M. (1997). *Opening dialogue: Understanding the dynamics of language and learning in the English classroom*. New York: Teachers College Press.

Otsuji, E., & Pennycook, A. (2010). Metrolingualism: Fixity, fluidity and language in flux. *International Journal of Multilingualism, 7*(3), 240–254. https://doi.org/10.1080/14790710903414331.

Otwinowska, A., Mieszkowska, K., Białecka-Pikul, M., Opacki, M., & Haman, E. (2018). Retelling a model story improves the narratives of Polish-English bilingual children. *International Journal of Bilingual Education and Bilingualism*. https://doi.org/10.1080/13670050.2018.1434124.

Pearman, C. J. (2008). Independent Reading of CD-ROM storybooks: Measuring comprehension with Oral retellings. *The Reading Teacher, 61*(8), 594–602.

Price, L. H., Kleeck, A., & Huberty, C. J. (2009). Talk during book sharing between parents and preschool children: A comparison between storybook and expository book conditions. *Reading Research Quarterly, 44*(2), 171–194.

Razak, R. A., Jin, L., & Hui, L. (2016). Profiling Malay Children's syntactic development: A Malay-LARSP. In P. Fletcher, M. J. Ball, & D. Crystal (Eds.), *Profiling grammar: More languages of LARSP* (Vol. 15, pp. 135–171). Bristol: Multilingual Matters.

Rice, M. L., Smolik, F., Perpich, D., Thompson, T., Rytting, N., & Blossom, M. (2010). Mean length of utterance levels in 6-month intervals for children 3 to 9 years with and without language impairments. *Journal of Speech, Language and Hearing Research, 53*(2), 333–349. https://doi.org/10.1044/1092-4388(2009/08-0183).

Sayer, P. (2013). Translanguaging, TexMex, and bilingual pedagogy: Emergent bilinguals learning through the vernacular. *TESOL Quarterly, 47*(1), 63–88.

Schick, A. (2015). Wordless book-sharing styles in bilingual preschool classrooms and Latino children's emergent literacy skills. *Journal of Early Childhood Literacy, 15*(3), 331–363.

Shrubshall, P. (1997). Narrative, argument and literacy: A comparative study of the narrative discourse development of monolingual and bilingual 5–10 year old learners. *Journal of Multilingual and Multicultural Development, 18*(5), 402–421.

Yip, V., & Matthews, S. (2006). Assessing language dominance in bilingual acquisition: A case for mean length of utterance differential. *Language Assessment Quarterly: An International Journal, 3*(2), 97–116. https://doi.org/10.1207/s15434311laq0302_2.

Chapter 5
Comparing Monolingual and Bilingual Classrooms

Viniti Vaish

Abstract This chapter is about comparing pedagogy in monolingual vs bilingual classes in the Learning Support Program. Pedagogy in typical LSP classes where English reading skills are taught in and through the target language is compared with bilingual classes where Malay and Chinese were systematically used to teach vocabulary and grammar. Specifically I explored how questioning patterns and the nature of interaction changes when translanguaging is the pedagogic practice. The main findings are that there was no change in the quantity of questions asked by the teachers and students in the monolingual vs bilingual classes. Furthermore there were a higher number of lower-order questions in the latter. However, there was a substantial difference in the nature of interaction between the monolingual vs bilingual classes. In the bilingual classes, exchanges were longer, and the teacher took time to explain key vocabulary items and grammatical rules. This chapter thus provides a bird's-eye view of monolingual vs bilingual pedagogy and sets the stage for an in-depth analysis of interactional patterns in the ensuing chapters.

Introduction

What happens to patterns of interaction when translanguaging is used as a pedagogical approach in the English class? There are very few studies which compare monolingual vs bilingual language learning environments to show exactly how patterns of interaction and discourse change when two languages are used to teach the target language (Fazio and Lyster 1998; Lara-Alecio et al. 2009; Walker de Felix et al. 1993; Hopewell 2011). Fazio and Lyster (1998) compared submersion vs immersion classrooms in the Montreal area where the target language was French.

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Submersion classes took a "sink or swim" approach to language learning: the home language was not used at all, and children who came from homes where French was not spoken were expected to pick up the language because they were surrounded by peers who did speak French. Immersion classes, on the other hand, took a bilingual approach to language learning, and typically two languages were used by both teachers and students though the allocation of time to each language varied. The authors found that the two types of classes had very different orientations though in both classes the teachers were teaching homophones. Whereas submersion classes were drill and practice oriented with minimal student talk, immersion classes were more interactive, and instead of drills there was student-led discussion about meta-language.

In a similar study, four classes were compared by Lara-Alecio et al. (2009) using an instrument called Transitional Bilingual Observation Protocol: Structured English Immersion classes (control and experimental) and Transitional Bilingual Education classes (control and experimental). The authors found that in both types of experimental classes, the teacher was engaging students in reasoning, comparing, and predicting which are higher-order thinking skills associated with what Cummins (2000) termed cognitive academic language proficiency (CALP). Also, in the experimental classes, the teachers used leveled questions of increasing difficulty to elicit extended oral answers from the students. In the control classrooms, on the other hand, there was more teacher talk rather than student talk. What was surprising in this study was that the distribution of language of instruction in all four classes was roughly the same: 84% of instruction time was in English and 5% in Spanish during the ESL block. Thus in this study it was the nature of pedagogy that created a difference in student outcomes and not the distribution of languages.

Hopewell's (2011) study is somewhat different from those of Fazio and Lyster (1998) and Lara-Alecio et al. (2009) because of the emphasis on writing tasks. Hopewell (2011) compared the written recall of bilingual students in two conditions: (1) when they were allowed to use English only and (2) when they were allowed to use both Spanish and English. The primary purpose of Hopewell's (2011) study—"to understand better what happens when spaces for Spanish-English bilingualism are created within an English literacy lesson"—is identical to the purpose of our Proof of Concept. The difference is that the cohort of fourth graders that Hopewell was exploring in her paper are second language learners of English. However in our cohort of LSP students, it is difficult to establish which is the L1 and L2 of the students as many of them, like in the study conducted by Martin-Beltran (2010), are simultaneous bilinguals. In fact, as documented in Chap. 2 of this book, there are many types of bilinguals in Singapore's LSP class: those whose L1 is English, those whose L1 is their Mother Tongue, and those who use English and Mother Tongue equally. For the latter group, it is difficult to establish which language is the L1. The key finding in Hopewell's (2011) study was that in written recalls, students were able to recall more when they were allowed to use both Spanish and English than when they were allowed to use English only.

One study that is different from all the others reviewed above is Felix et al. (1993) because the sample used herein consisted of adolescent students. Based on

data from 12 secondary schools in South Western, USA, the authors compared patterns of interaction in experimental vs control classes using a low inference coding scheme called Classroom Observation Schedule (COS). In the experimental classes both Spanish and English were allowed, whereas only English was allowed in the control classes. The researchers found that in the bilingual classes, interaction was more conducive to building communicative competence and higher-order thinking. In bilingual classes there was more group work, and the students used more manipulatives and were more amenable to sharing ideas. Since my assumption was that allowing students in the LSP to translanguage would enable higher-order thinking, Felix et al.'s (1993) work resonated with me. The difference is that though Felix et al. (1993) coded interactions quantitatively, we have used a mixed methodology for coding.

The Role of Questioning Patterns in Language Acquisition

Questioning patterns of teachers are the key to creating an interactive classroom. To this end the questioning patterns of teachers in the UK during the literacy hour have been intensively studied (Hargreaves et al. 2003; Myhill 2006). Myhill (2006) analyzed whole class teaching in England's National Literacy Strategy and National Numeracy Strategy. She found that though teachers asked a lot of questions and though their classes tended to be highly interactive, most of these questions were factual. When children responded to these factual questions, the average length of their utterance was four words. Teachers in England used few speculative or process questions which are the question types that allow children to produce extended oral responses and explore language while they are thinking through ideas. In other words it is the speculative and process questions which elicit "talk for learning."

Hargreaves et al. (2003), a broader study in which the authors not only analyzed questioning patterns of teachers in the literacy hour but also looked at the history of questioning patterns of teachers in the UK in both literacy and other disciplines, also elicited from teachers what interactive teaching means to them. The authors found that since 1976 the number of questions that teachers ask had more than doubled. However, in the literacy hour, these questions tended to be of the lower-order factual recall type. There were very few sustained interactions between teachers and students in the literacy hour, that is, interactions with the same child or small group of over 25 s. Also, sustained pupil utterances, that is, utterances with more than 10 words, were extremely rare. Thus though the ratio of questions to statements had increased, the quality of interactive teaching was still teacher dominated and did not allow pupils to engage in dialogue.

Dombey (2003) compared three video clips from National Literacy Strategy classrooms, one of which was a promotional video and the other two were videos of actual classrooms. Dombey's focus was on the importance of oracy in teaching reading to young learners. In all three videos, Dombey analyzed whole class interaction and found that, ironically, the promotional video was not as interactive as the

other two. In the former, the teacher did not deviate from display questions and stuck to a scripted pedagogy. On the other hand, in the other two videos, the teacher had a genuine conversation with pupils in which they interrogated the text, commented on the illustrations, and expressed opinions.

The idea that display or closed questions always inhibit extended student responses is innovatively challenged by Boyd and Rubin (2002, 2006). The authors proposed that "contingency" is more important than authenticity in promoting student-led discussion. They argued that "contingency is …a manifestation of … classroom culture, a culture of taking students seriously and building on and extending what is presented in their contributions" (Boyd and Rubin 2006). Using a 6-week instructional unit on whales, the authors demonstrated how display questions can result in student critical turns (SCTs) which they defined as utterances that are linguistically extended (the turn should be 10 sec or more of uninterrupted talk), structurally coherent, and socially engaged (Boyd and Rubin 2006). In an in-depth analysis of SCTs Boyd and Rubin (2002) explored the linguistic environment in which an SCT is produced. They found that display/closed questions that are contingent on student contribution engender local discourse conditions where SCTs arose. They also found that it took a long string of display questions from the teacher to elicit an SCT from the students, whereas the use of authentic questions could achieve the same outcome in a shorter period of time.

Most of the studies discussed in the previous paragraphs have sociocultural leanings. Statistically also oral language has a moderate, yet significant influence on language acquisition. A large-scale study by Saunders et al. (2006) on oral language use across program types corroborated this. The authors observed 85 kindergartens across four program types: English immersion, transition, maintenance, and dual language. In each of these programs, they studied classrooms with and without an English Language Development (ELD) block that specifically targeted oral language. Though the effect sizes were small, they found that students in classrooms with an ELD block had higher English oral language composite scores, higher word identification scores, and a tendency towards higher letter-sound scores.

NICHD (2005), a large-scale longitudinal study of 1137 children who were followed from age 3 through third grade, also corroborated this. NICHD (2005) compared the influence of code-based skills and oral language skills on later reading. The former includes skills like phonological awareness, letter naming, phonological decoding, emergent writing, and print awareness. The latter includes vocabulary (receptive and expressive), syntactic and semantic knowledge, and narrative discourse processes. These two skill sets, which were measured through tests, are statistically separable. The purpose of the NICHD study was to investigate the contribution of preschool oral language skills to reading performance in early elementary school after siphoning out the contribution of code-based skills. Subjects were administered a battery of tests at four stages of their development: 36 months, 54 months, first grade, and third grade. The conclusion was that 54-month comprehensive oral language competence (excluding vocabulary) related both directly and indirectly to third grade reading comprehension for children from both higher and lower SES groups. The study thus stresses the importance of oral language skills in early reading.

Given this emphasis on effective questioning patterns resulting in enhanced interactivity and an environment conducive to language learning, I wanted to investigate if translanguaging led to enhanced questioning patterns. Specifically:

1. What happens to questioning patterns in student and teacher talk when translanguaging becomes part of the pedagogy?
2. How does the teacher use translanguaging to teach vocabulary and grammar?

To answer the first question, we compared questioning patterns of teacher and students between monolingual classes vs. classes with translanguaging. The monolingual classes were from the baseline project on the LSP (Chap. 2, Table 2.2a). The schools in this part of the data set are Qin Hua, Jin Hua, Nan Xin, Hazelnut, and Everbest Primary schools. These monolingual classes were then compared with classes from Schools F and C where translanguaging was used in LSP classes (Chap. 2, Table 2.2b). No doubt both sets of classes are from different schools with different students and teachers. Thus there are no controls in terms of investigating the same students and teachers. However, though the schools and classes are different, they are all part of the LSP program. Students are selected for the LSP after a nationwide diagnostic test conducted by Singapore's Ministry of Education. Thus all the students in the LSP are similar in terms of their low proficiency, especially low proficiency in reading in English. Also all the teachers in the LSP are provided training by the Ministry on how to teach reading skills to low-proficiency students. These are controls that are already built into the system.

Findings

The results are presented in two broad sections. In the first section, I compare interaction in monolingual classes with interaction in the Malay-English bilingual class. Thereafter the same analysis is done comparing monolingual classes with the Chinese-English bilingual group.

The story in graphs 5.1, 5.2, and 5.3 presented below is one regarding how questioning patterns change when translanguaging is introduced into a monolingual reading class. As Fig. 5.1 shows, the total number of questions asked by the teacher and the students did not change. Even when the teacher and students were allowed to translanguage, the class remained teacher fronted with nearly 94% of the questions being asked by the teacher. Figures 5.2 and 5.3 give a more nuanced view of questioning patterns: though the quantity of questions from the teacher and students remained the same, there was a slight difference in the nature of questions. For both the teacher and the students, there was an increase in the number of lower-order questions asked in the bilingual classes. Both students and teachers asked more factual and procedural questions in the bilingual Malay-English classes, though they asked fewer speculative and process questions.

Thus one of the findings is that translanguaging did, indeed, result in students asking more questions in the Malay-English bilingual group; however these tended

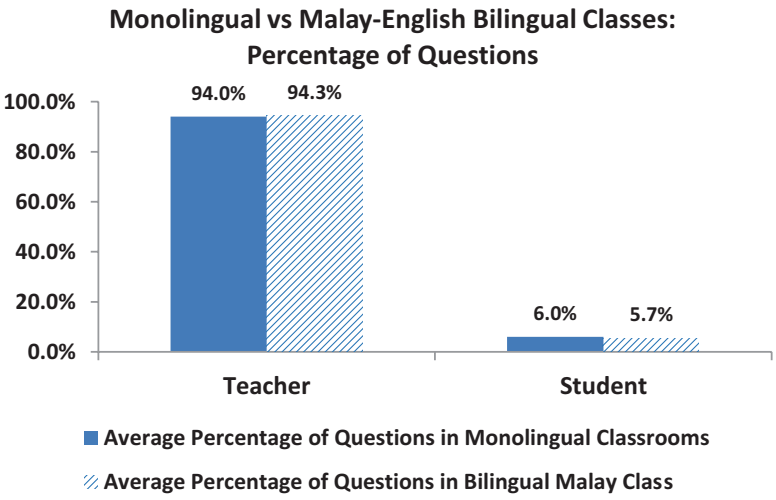

Fig. 5.1 Quantity of teachers' questions in monolingual vs Malay-English bilingual classes

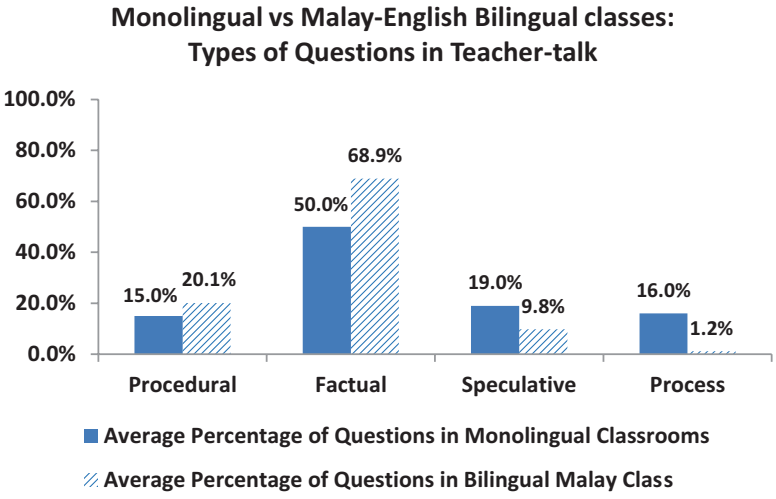

Fig. 5.2 Types of teachers' questions in monolingual vs Malay-English bilingual classes

to be mainly factual and procedural questions. No doubt the goal of the shared book approach is to encourage children to ask and answer questions of higher order. However, for emergent literates, higher-order questions are more difficult. Also, teachers themselves did not ask very many questions of the speculative and process type. For instance, in Fig. 5.2 in monolingual classes 19% of the teachers' questions were speculative, and 16% were process questions. In classes with translanguaging only, 9.8% of the questions were speculative and a meager 1.2% were process. Thus

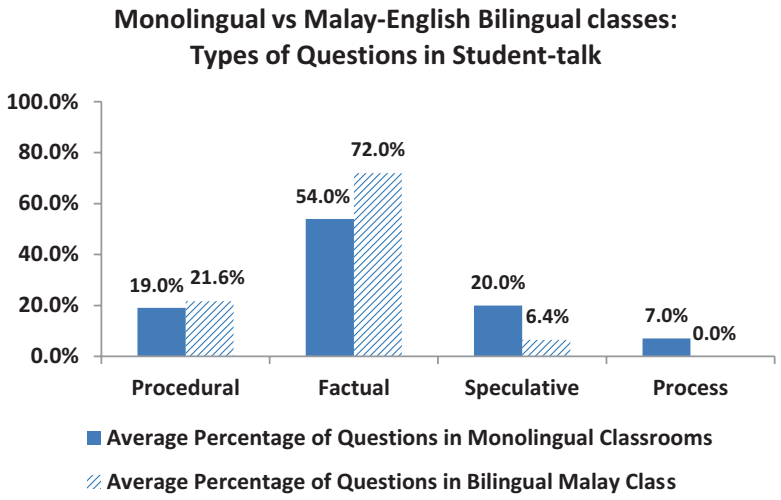

Fig. 5.3 Types of questions by students in monolingual vs Malay-English bilingual classes

the children had limited exposure to the linguistic and cognitive structures which form the foundation for producing such questions.

I now move on to comparing specific episodes from monolingual vs bilingual Malay-English classrooms. In the three exchanges (Exchanges 5.1, 5.2, and 5.3) discussed below, the teachers are teaching quantifiers and homophones.

In Exchanges 5.1 and 5.2, the teacher was teaching the concept of quantifiers, e.g., "much" and "whole." In Exchange 5.1, from Everbest Primary School, the children were only allowed to use English, whereas in Exchange 5.2, from school W, the teacher was translanguaging. In Exchange 5.1, line No. 86, the teacher tried to link the concept of quantifiers with what the children had learned in their Math classes. However, the response she elicited from one student, "got," made her feel that the student had not really understood her question so she moved on quickly. In line 106 the teacher tried to elicit the meaning of the word, "whole." She offered part of the meaning herself in line 107 by saying "every" with a rising tone of voice suggesting that the children should fill in the blank with the part that comes after "every." The students supplied the answer in line 107 by saying "thing." The teacher then put the word together and said "everything" which, according to her, is the meaning of "whole."

Pedagogy in Exchange 5.1 is not conducive to a deep understanding of vocabulary. Firstly the students were unable to link the concept of quantifiers with what they have learned in Math. Had the teacher stayed on this topic for a while and allowed the children to translanguage informally about how they were studying quantifiers in Maths, the pedagogy could have resulted in better comprehension. However, the teacher's "never mind" in Exchange 5.1, line 88, indicated that she was not going to spend any time creating links between Math and English.

Exchange 5.1 Day 3 Everbest monolingual class on quantifiers

No.	Speaker	Utterance
84	T	…Okay repeat after me. Quantifier
85	Ss	Quantifier
86	T	Okay now, quantifier comes from the word quantity. Okay quantity. Have you come across this word in your Maths?
87	S	Got
88	T	You sure? Okay never mind. …When I say the word quantity, it refers to how much or how little something is….
100	T	A few okay. It's the quantifier. Okay. This is the quantifier. Are we clear about that? Okay now I want to you listen to this sentence. "Complete the whole thing in your book." Repeat the sentence after me. Complete the whole thing
101	S	XXX ((inaudible))
102	T	What's the word XXX here?
103	S	Whole
104	T	Whole very good
105	S	Complete
106	T	Whole is the quantifier. Whole means every?
107	S	Thing
108	T	Everything

Exchange 5.2 Day 7 School W bilingual class on quantifiers and homophones

No.	Speaker	Utterance
1	T	Okay quantifier. When you said "Grasshopper's song is so much fun" what is the meaning of "much"?
2	S3	*Banyak* (much)
3	T	Much means *banyak*. Very good. So when they say "Grasshopper's song is much fun" they are saying that they are…
4	S3	*Belalang* (Grasshopper)
5	T	*Lagu belalang sungguh banyak bergembira*. (Grasshopper's song is so much fun). Right? So what's the meaning of "much" again, in Malay?
6	S2	*Banyak*
7	T	*Banyak*. Okay very good. How about "We love to dance the whole day long." Whole?
8	S3	*Saya…semua orang* (Yes…everyone)
9	T	No I want you to tell me "whole" in Malay
10	S3	*Lubang* (hole)
11	T	No. *Lubang* is H-O-L-E. This is W-H-O-L-E. Whole.
12	S3	"Whole"/"hole" means what?
13	T	Okay "whole" means *seluruh*. Like the whole when I say the whole family. I'm talking about *seluruh anggota keluarga*. (The whole family)
14	S3	*Seluruh*…

In Exchange 5.2 line No. 1, the teacher asked for the meaning of "much" and one of the students replied in Malay: *banyak*. In line No. 5 she inserted the Malay word in a sentence translated from the text book: *Lagu belalang sungguh banyak bergembira* (Grasshopper's song is so much fun). As in the study by Then and Ting (2011), this translation worked like a reiteration in which the purpose was to create a cross-linguistic bridge from where the students could understand the words "banyak" and "much" as a pair rather than discrete lexical items. In Exchange 5.2, line No. 7, the teacher moved on to the next quantifier, "whole," and asked for the meaning of this word. Student S3 answered in line 9 with the Malay word: *Lubang*. The teacher, in line no. 11, pointed out that "lubang" meant "hole" whereas she was asking for the meaning of the word "whole." Since the teacher did not acknowledge that "hole" and "whole" are homophones, the student was confused. Consequently in line no. 12 the student asked: "'Whole'/ 'hole' means what?" In line no. 13 the teacher used the scaffold of Malay to explain that "whole" meant *seluruh*. She then illustrated this with an English example, "the whole family," which she also translated into Malay as *seluruh anggota keluarga*. This time the student understood as indicated by his repeating the key Malay word: *seluruh*.

In foreign and second language classrooms new vocabulary can be introduced through the use of realia, pictures, mimicry, gestures, or explanation. Here the teacher decided to use translation as it was impossible to explain "much" and "whole" through realia, pictures, etc. Also, by valuing the linguistic resources that the children bring to the classroom, the teacher was able to change the typical IRE pattern of the class. In Exchange 5.2 line no. 12, student S3 asked a question, which is a rare occurrence in the LSP class. In this part of Exchange 5.2, the student was the initiator and the teacher the responder, and finally in line no. 14 the student offered a feedback move by repeating "seluruh." In the video this feedback move by the student is barely audible, and it seemed as if he was talking to himself, reflecting on the new vocabulary he had just learned.

Though on the surface the student's question seemed like a factual question, we coded it as speculative not only because of the translanguaging context in which it was asked but also because the teacher stayed with S3 for the entire exchange. "'Whole'/'hole' means what?" is one of the rare speculative questions asked by students. S3 is not merely asking for the meaning of a word; rather he is trying to link vocabulary in Malay and English to understand that though "whole" and "hole" are homophones in English, they have discrete meanings, just as these words do in Malay. Translanguaging had helped this student understand vocabulary at a deeper level. The fact that "whole" and "hole" are homophones did not come up in Exchange 5.1 as the class did not ask questions and engage with the vocabulary to the extent that the students did in Exchange 5.2.

In Exchange 5.3 the teacher in Nan Xin Primary School, which is from the monolingual data set, was teaching the homophones "no" and "know." She introduced the word "no" in line 314 and the students' response in line 315 clearly indicated that they were confused about this pair of homophones. In line 318 Ms. Tan Sun Hee tried to articulate the difference between "no" and "know." At first, as indicated by a student's response in line 319, the class did not understand what the

Exchange 5.3 Nan Xin Primary School monolingual class on homophones

No.	Speaker	Utterance
314	T	This is a very short word. Only 2 letters. Only 2 letters and this word is "no."
315	Ss	I know.
316	T	( ) ((13.18)) you know how to say no?
317	S	I know.
318	T	It's different from the "I know." This "no" is the "yes no," no. issac ( ) ((13.25)).
319	S	I know. Then Ms. Chan, I say I know. Then got no/know.
320	T	Ah this is not the same one. That's another vowel. I will teach you another "no."
321	S	No way.
322	T	Yah, this one is like "no way," I don't want to do it. Say I ask you, can you do something. Okay can you go home now?
323	S	No.
324	T	No, so you say no. do you understand? Can you talk while I'm talking?
325	Ss	No.
326	T	No. Very good. Can you clip your hair now?
327	Ss	No.
328	T	Can you play with your hair now?
329	Ss	No.
330	T	No. so we say no.
331	Ss	((chorus)) no.
332	T	Say no.
333	Ss	No.
334	S	Teacher.
335	T	Yes.
336	S1	No way.
337	S2	Picture.
338	T	No, do you get a picture for no?
339	S	No.
340	T	No.

teacher was saying. However, in line 311 the student did come up with an example that displayed comprehension: "no way." Ms. Tan Sun Hee then continued by reinforcing the meaning of the word "no." From turns 324 till 328 she offered questions which resulted in answers in the negative, thus teaching the class that "no" means a negative response. However, Ms Sun Hee did not attempt to explain the meaning of "know" which would be much harder using only English.

I now turn to the way translanguaging was used to teach grammar.

Exchange 5.4 is shown in two parts: turns 31–50 and thereafter 87 till 106. The first half of Exchange 5.4 is from the beginning of a bilingual class in School C. Turns 1–30 involved the seating and setting up; thus I have deleted that part. The focus of this lesson is teaching past tense formation in English. In turn 31 the bilingual research assistant introduced the concept by saying that in English the word itself changes if the action occurred in the past, e.g., "eat" becomes "ate." Thereafter the research assistant introduced a new verb: come. In turn 41 the research assistant

Exchange 5.4 School C bilingual class on past tense

No.	Speaker	Utterance
31	T1	*Baca juga kan? Semalam dan hari ini lain kan. Jadi Cikgu nak bilang kamu semua, kalau dalam Bahasa Inggeris kan, ada lainnya tau? Kalau kita makan, semalam kita sudah makan, telah makan*. Ok. *Kalau* in English *kita kena cakap, semalam, hari ini kita. (We did right? Yesterday and today is different right. So I'm going to tell you that if in English Language, there's a difference you know? If we eat, yesterday we ate, ate. Ok If* in English *we must say yesterday, today we.)*
32	S2	Yesterday.
33	T1	Yesterday. We eat, today right? Today we eat. Yesterday we
34	S3	Ate
35	T1	Ate. Correct. *Kenapa* ate? (*Why* ate?)
36	S3	*Dah lepas (Over already)*
37	T1	*Dah lepas. Faham tak? Kalau, S2, saya tanya, kalau datang, hari ini? (Over already. Understand? If S2, I ask, if come, today?)*
38	S2	I come
39	T1	I come *hari ini* right? (I come *today* right?)
40	S5	I come today
41	T1	*Kalau yesterday?* S5. (*If* yesterday? S5)
42	S5	I come yesterday
43	T1	I come yesterday? *Ada beza tak? (Is there a difference?)*
44	S3	Tak ada. (Don't have)
45	T1	*Ada* actually. *(Have* actually*)*
46	S5	*Kalau hari ini kita* come yesterday, yesterday *kita tak taruk –ed. (If today we* come yesterday*, yesterday we don't put -ed)*
47	T1	*Ah betul, siapa dengar apa S5 cakap tak? Dia cakap apa? S5 cakap lagi. (Ah correct, who heard what S5 said? What did he say? S5 say it again)*
48	S5	*Semalam kita letak -ed (Yesterday we put -ed)*
49	T1	For English right. *Kalau hari ini kita tak taruk* –ed *kan*? Right. *Kalau semalam kita taruk. (If today we don't put –ed right?* Right*. If yesterday we put)*
50	All	-ed
…		
87	T1	*Ok tadi siapa cakap* come*?* ((S3 raises hand)) *Ok, S3 jugak. Uh…S4 ni apa?(Ok just now who said* come*? Ok S3 also. Uh…S4 what's this?)*
88	S2	Came.
89	S4	Came
90	T1	Came. S2 *betul (S2 is correct)*
91	T1	Ok, *apa lainnya, bezanya* between. (Ok, *what's the difference, difference* between)
92	S3	*Ni A dia*…tukar (*This the* A…*changes*) ((S3 points to the board))
93	S5	*A dia tukar jadi O (The A changes to O)*
94	T1	*O dia tukar jadi A. (The O changes to A)* Ok last one.
95	All	Go. Went.
96	T1	Ok so *ini*. (Ok so *this*)
97	All	Went

(continued)

Exchange 5.4 (continued)

No.	Speaker	Utterance
98	T1	Went means *dah lepas kan*? (Went means *it's over right?)* I go
99	S3	I go to the park
100	T1	*Hari apa? (When?)* Today?
101	S3	Yesterday.
102	T1	Yesterday *kena pakai? (*Yesterday *must use?)*
103	All	Went
104	T1	*Kalau* today, I go to the park today, *kan*? (*If* today, I go to the park today, *right?*)
105	S3	I went to the park yesterday.
106	T1	Very good S3. Ok. Can S5 give me a sentence out of pick?

used a translanguaged cue and asked S5: "*Kalau* yesterday?" She meant how would you use the word "come" if the action was performed in the past or yesterday? In response to her question, the student gave an incorrect answer in turn 42: "I come yesterday."

At this juncture, i.e., turn 43, the research assistant decided to translanguage. The exact moment when the teacher should translanguage is a challenging decision. Here, as in many other Exchanges in this book, the cue is an incorrect answer from the student. As soon as the student said "I come yesterday" the teacher decided to use Malay for an extended explanation as in utterance 47. Her explanation attempted to elicit metalinguistic awareness about the rule that some words in English change when used in the past tense. She asked: "Ada beza tak?" meaning is there a difference between past and present tense forms for the lexical item "come." S3 replied that there is no difference. However S5 attempted a different answer indicating that his/her metalinguistic awareness had been aroused by the teacher's question.

In turn 46, S5 produced one of the longest utterances in the data set. This utterance has a total of 11 units when all the words and morphemes are counted. In a later chapter, I will show that though the average MLU of the students is low, such instances in the interaction indicated that translanguaging did indeed increase amount of talk at a few junctures. In turn 46 and then again in turn 48, student S5 had articulated a rule regarding past tense formation in English: some past tense forms are created by attaching "ed" and some are not. This is what the student meant when in line 46 he/she said "yesterday *kita tak taruk* –ed," meaning that in the word "come" we do not add the morpheme "ed" when this verb changes to the past tense. In line 47 the teacher commended S5 for this comment by asking the whole class if everyone has heard what S5 just said. The implication of S5's translanguaged utterance was that S5 not only understood that the morpheme "ed" is attached to some words in English but also that the word "come" is an exception to this rule.

In the gap between turns 50 and 87, the research assistant wrote "came" and "come" on the whiteboard. The transcript indicates that a few students could decode the new word on the white board correctly. The research assistant then came back to her initial question about the difference between "come" and "came." In the ensuing

lines, students S3 and S5 co-construct comments to articulate the changes that happen to the verb "come" when it changes to the past tense. They noticed that the "a" changes to "o" when the tense changes. Turns 91–94 constitute a discussion or student critical turn which is evidence of emerging metalinguistic awareness and an outcome of translanguaging. Boyd and Markarian (2011) analyzed student critical turns in an English-only environment, whereas here the SCT is situated within the context of translanguaging. As mentioned earlier in the review of literature for this chapter, the SCT is a student turn in which the student talks for an extended period of time and displays critical engagement with the lesson. In this SCT the teacher, S3, and S5 collaboratively figure out the transformation in spelling that occurs within the word "come" when it changes to the past tense.

Thereafter the teacher introduced a new pair of words which do not require the morpheme "ed" when converting to the past tense: "go" and "went." As in the example regarding "come" and "came," at first the students were unable to use the correct past tense form of the word "go." S3 in turns 99–101 said: "I go to the park yesterday." Taking this incorrect utterance as her cue, in turn 102 the teacher translanguaged to prompt S3 towards the correct answer: "Yesterday *kena pakai*?" She meant that if you wanted to say the action happened in the past then what would be the correct word? This time, in turn 103, the class got it right and S3 constructed the sentence correctly in turn 105.

To conclude this part of the discussion, there are at least two utterances in Exchange 5.4 which demonstrate language learning and give us an opportunity to focus on student outcomes. Turns 48 and 93, both of which are translanguaged utterances and produced by student S5, can be emphasized as indicators of language learning. In both these utterances, S5 inserted English morphemes or letters into a Malay sentence. It would not be productive to take a code-switching approach to analyzing these utterances and argue that Malay is the matrix language. What is more important is that S5 is learning English in and through Malay. Through the scaffold of Malay, he/she notices changes in spelling and the addition of the past tense morpheme in specific English words.

So far I have been focusing on interactional patterns in the monolingual vs the Malay-English bilingual group. Let us now move on to the Chinese-English bilingual group and their questioning patterns.

Figure 5.4 shows that in the case of the Chinese-English bilingual classes, there was a change in the questioning patterns of teachers and students when translanguaging was used. The number of questions teachers asked dropped and the number of questions students asked increased. Though students asked only 6% of the total number of questions in monolingual classes, in the Chinese-English classes, they asked 16.1% of the questions. This finding contrasts with data shown in Fig. 5.1 for the Malay-English bilingual classes. In the latter there was no change in the questioning patterns of teachers and students with the use of translanguaging.

Though this finding could and does indicate a move towards a more interactive classroom, a closer look at exactly which type of question increased gives us pause. Figure 5.6 shows that though the number of questions students asked in the Chinese-English bilingual classes increased, most of the increase was in the procedural type

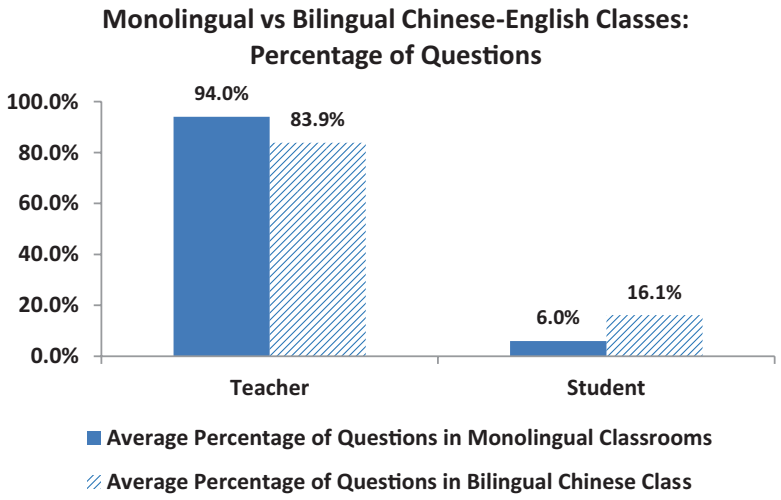

Fig. 5.4 Quantity of questions in monolingual vs Chinese-English bilingual classes

of questions. These nearly doubled with the use of translanguaging from 15% to 31.4%. There was also an increase in factual questions from 50% to 60.5%. As in the case of the Malay-English bilingual classes, in these classes also the percentage of speculative and process questions went down in the bilingual classes. The numbers thus indicate that though classes did become more interactive due to the fact that the students could use Chinese, the nature of the questions did not show evidence of higher-order thinking.

Though questioning patterns did not improve due to translanguaging, there was evidence of best practice that is not evident in the numbers reported above. The following, Exchange 5.5, is from School C where the children were reading "Chicken Rice," a locally produced story. The goal of this lesson was to teach new vocabulary (e.g., branch, trunk).

In response to the teacher's question regarding the whereabouts of the snake, S1 commented in turns 75 and 77 that the snake is in the tree. Though this is not entirely incorrect, given that the picture in the book shows a snake hanging from the branch of a tree, the teacher translanguaged to lead the students towards a more specific comment regarding the location of the snake. In this case the teacher did have a picture in the book which she could use to show the students the difference between a "branch" and a "tree." However she chose to teach vocabulary not by using pictures but by translanguaging, perhaps also because she wanted to teach a new preposition: "from." In the first instance, turn 78, the teacher explained the difference between "branch" and "trunk" in English while translating the key words into Chinese. Thereafter she constructed a few sentences in Chinese applying the new vocabulary.

Exchange 5.5 Day 2 School C Chinese-English bilingual class on vocabulary

No.	Speaker	Utterance
74	T	…And where is the snake?
75	S1	In the tree
76	T	Okay, he's hanging..
77	S1	In the tree
78	T	From the branch of the tree. Now this is the whole tree, okay. This the whole tree. We call this the trunk, the *Shù gàn*. Okay, *Shù gàn*. And here is the *Shù zhī*. Can you see that it is smaller? And it's in a different direction? So this branch here, this is called the tree branch, and it's called *Shù zhī*. Okay? And this is the *Shù gàn*. All right? It's the tree trunk. It goes this way. So the branches will go in different directions. These are the branches. So Snake…. Wait. Hold on. Snake is hanging from the branch. So *shé cóng shù zhī… diào zhe.* Okay? Ah *tā cóng shù zhī neì biān diào zhe.* So it's actually hanging on the branch of the tree. Okay? Yes
79	S1	Mrs. S you mean that snake hanging on that
80	T	Branch. Tree branch
81	S1	Tree branch?
82	T	*Shù zhī*
83	S1	Chinese say *Shù zhī*
84	T	Yes *shù zhī* is the branch, and "from" is *cóng*. So *shé cóng neì ge shù zhī neì biān diào zhe*. Hanging on the branch of the tree. Okay? Alright. Okay.
…		
94	S1	The Monkey hanging on the *shù zhī*
95	T	Ah okay yes. The monkey is hanging from the branch of the tree and good, you remember branch is *shù zhī*.

The entire exchange is with S1 who attempted to pronounce the new word "branch" in line 79 but stopped short of uttering the word. However, later in line 81 he/she mustered enough confidence to produce this new word. In turn 94 the same student uttered a translanguaged comment which was, indeed, more specific than the comment this student had made in lines 75 and 77. The student's utterance at the end of the exchange, "The monkey is hanging on the shù zhī" is better than his/her utterance at the beginning, "in the tree." The utterance at the end is not only a full sentence in translanguaged form but also indicates that the student knows how to use the new word though in this case the student has used the new word in Chinese. Exchange 5.5 is yet another example of an SCT, though in this one, unlike the SCT in Exchange 3.4, the teacher stayed with one student for multiple turns.

The quantitative numbers provided in the previous section can be justified by Exchange 5.5. Figure 5.5 shows that factual questions increased to 60% in classes where there was translanguaging. Indeed, the question asked by S1 in utterance 79 to 81 (Mrs. S you mean that snake handing on that tree branch?) is a factual one. However, the significance of this factual question is that it is an opportunity for S1 to produce a new lexical item, "branch," and clarify the meaning of this word at the same time (Fig. 5.6).

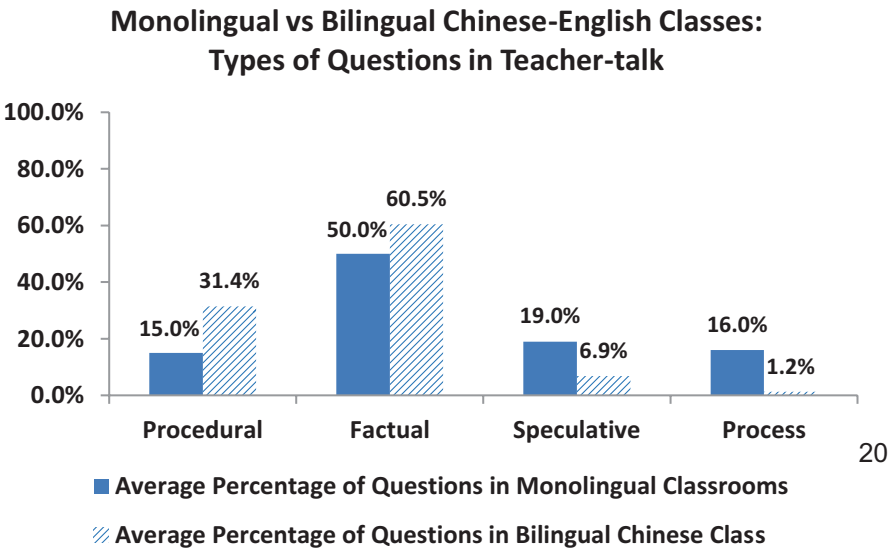

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Fig. 5.5 Types of teachers' questions in monolingual vs Chinese-English bilingual classes

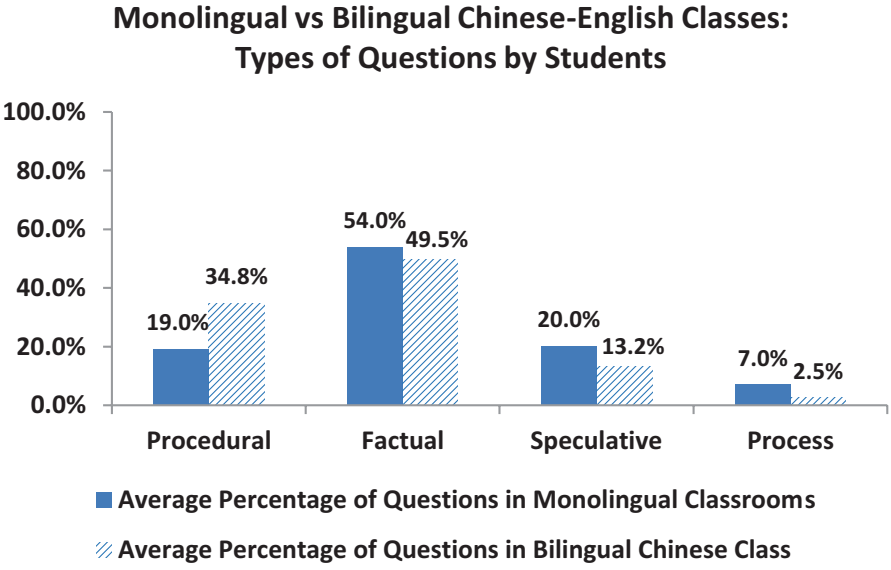

Fig. 5.6 Types of students' questions in monolingual vs Chinese-English bilingual classes

Conclusion

This chapter has explored both the consistencies and the changes that occurred in pedagogy due to translanguaging. We did not find substantial changes in the nature of questioning patterns due to the introduction of translanguaging. Though in the bilingual classes there was some change in the quantity of questions asked by the students in the Chinese-English bilingual group, these new questions were lower-order procedural and factual questions which did not change the teacher-fronted nature of the class. However, the changes due to translanguaging were in the nature of the interaction. Translanguaging produced more SCTs in which the teacher tended to stay with one student for a longer period of time and gave the student more opportunities for extended oral responses in which the student tried out new vocabulary and talked his/her way into learning the meaning of a new word or grammatical form.

References

Boyd, M. P., & Markarian, W. C. (2011). Dialogic teaching: Talk in service of a dialogic stance. *Language and Education, 25*(6), 515–534.

Boyd, M. P., & Rubin, D. L. (2002). Elaborated student talk in an elementary ESoL classroom. *Research in the Teaching of English, 36*(4), 495–530.

Boyd, M., & Rubin, D. (2006). How contingent questioning promotes extended student talk: A function of display questions. *Journal of Literacy Research, 38*(2), 141–169. https://doi.org/10.1207/s15548430jlr3802_2.

Cummins, J. (2000). *Language, power and pedagogy: bilingual children in the crossfire*. Cleveland: Multilingual Matters.

de Felix, J. W., Waxman, H. C., Paige, S., & Huang, S. Y. L. (1993). A comparison of classroom instruction in bilingual and monolingual secondary school classrooms. *Peabody Journal of Education, 69*(1), 102–116. https://doi.org/10.1080/01619569309538753.

Dombey, H. (2003). Interactions between teachers, children and texts in three primary classrooms in England. *Journal of Early Childhood Literacy, 3*(1), 37–58. https://doi.org/10.1177/14687984030031002.

Fazio, L., & Lyster, R. (1998). Immersion and submersion classrooms: A comparison of instructional practices in language arts. *Journal of Multilingual and Multicultural Development, 19*(4), 303–317. https://doi.org/10.1080/01434639808666358.

Hargreaves, L., Moyles, J., Merry, R., Paterson, F., Pell, A., & Esarte-Sarries, V. (2003). How do primary school teachers define and implement 'interactive teaching' in the National Literacy Strategy in England? *Research Papers in Education, 18*(3), 217–236. https://doi.org/10.1080/0267152032000107301.

Hopewell, S. (2011). Leveraging bilingualism to accelerate English reading comprehension. *International Journal of Bilingual Education and Bilingualism, 14*(5), 603–620. https://doi.org/10.1080/13670050.2011.564274.

Lara-Alecio, R., Tong, F., Irby, B. J., & Mathes, P. (2009). Teachers' pedagogical differences during ESL block among bilingual and English-immersion kindergarten classrooms in a randomized trial study. *Bilingual Research Journal: The Journal of the National Association for Bilingual Education, 32*(1), 77–100. https://doi.org/10.1080/15235880902965938.

Martin-Beltran, M. (2010). The two-way language bridge: Co-constructing bilingual language learning opportunities. *The Modern Language Journal, 94*(2), 254–277. https://doi.org/10.1111/j.1540-4781.2010.01020.x.

Myhill, D. (2006). Talk, talk, talk: Teaching and learning in whole class discourse. *Research Papers in Education, 21*(1), 19–41. https://doi.org/10.1080/02671520500445425.

NICHD Early Child Care Research Network. (2005). Pathways to reading: The role of oral language in the transition to reading. *Developmental Psychology, 41*(2), 428–442.

Saunders, W. M., Foorman, B. R., & Carlson, C. D. (2006). Is a separate block of time for oral English language development in programs for English learners needed? *The Elementary School Journal, 107*(2), 181–198. https://doi.org/10.1086/510654.

Then, D. C. O., & Ting, S. H. (2011). Code-switching in English and science classrooms: More than translation. *International Journal of Multilingualism, 8*(4), 299–323. https://doi.org/10.1080/14790718.2011.577777.

Chapter 6
Interactional Patterns in the Malay Group

Viniti Vaish

Abstract This chapter is based on in-depth coding of interactional patterns between the Malay students and teachers in Schools F and C. Two specific aspects of interaction, amount of student talk and quality of discourse, are the focus. Amount of talk is calculated on the basis of Mean Length of Utterance (MLU). A within-schools design is used to calculate MLU. Thus MLU was measured for the same class in each school during monolingual pedagogy vs translanguaging pedagogy. The challenges students (6–7 year olds) faced in interpreting simple stories in the Ginn reader are documented. These challenges, which were mainly due to lack of proficiency, were tackled through a pedagogy based on translanguaging. Translanguaging allowed students to produce longer utterances, in a few cases, through which they could better express comprehension. In teaching vocabulary, the teacher used translanguaging to bring the children closer to the meaning of adjectives connoting degree.

Introduction

In Chap. 3, which describes the methodology for this book, I have listed the coding procedures used on the massive data bank of transcripts generated in the baseline study and Proof of Concept. Herein I will briefly repeat the coding procedures for this chapter specifically. The coding for this chapter has attempted to measure discourse in two broad areas: quantity of talk and quality of talk. Quantity of talk is measured through Mean Length of Utterance. This is a calculation of how many words and morphemes a speaker produces in an utterance on an average. An utterance in a transcript is like a sentence except that it is bounded by pauses and not punctuation. Deciding on what is an utterance is always a challenge for researchers. Transcribers for our research project were advised to watch out for cues in intonation and pauses before deciding where they wanted to place a full stop while transcribing.

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Quality of discourse is measured in this chapter through an analysis of interactional patterns. The research team attempted to find patterns in the transcripts by applying specific codes. The Exchanges of discourse shown in this chapter were coded on the basis of how the teacher teaches vocabulary in monolingual and bilingual classes and how the teacher elicits student talk to display comprehension of the story.

No.	Speaker	Utterance
1	T1	Ok everyone, first page please. S1 you share with me ok. Ok, so today we are going to use Malay. Oh sorry, I'm Teacher N. You can call me *Cikgu* if you want. Ok, today we can actually use Malay, if you want.
2	S2	I like Malay.
3	S1	I also like.
4	T1	Ok, so we can actually use Malay today. So, let's turn to the first page. You've read this before?

The vignette above is from Day 2 in School C in which the Malay research assistant was conducting group work. The research assistant introduced this class by announcing that today the difference was that they would be allowed to use Malay. As the responses of students S2 and S1 indicated, this pedagogy elicited a positive response.

Amount and Richness of Talk

The Hart and Risley (1995) study which is about amount and richness of talk has already been briefly reviewed in the previous chapters. Here I would like to elaborate on the specific coding measures used by the authors. Hart and Risley (1995) also found differences in the quality or richness of everyday parent-talk based on the social class of the parents. They coded parent talk for types of words (vocabulary diversity), sentences, discourse functions, adjacency condition, and valence. To calculate vocabulary diversity, words were coded as nouns, verbs, modifiers, or functors (prepositions, etc.). Sentences were coded for the tense used in the sentence and number of clauses. We are following Hart and Risley's (1995) method of coding for sentences/utterances where a meaningful pause means that the transcriber can use a full stop. Codes for discourse functions included questions, directives, and affirmations. Adjacency condition had to do with whether the parent had an actual conversation with the child based on what the child was saying/babbling. Finally valence was the way Hart and Risley coded for affect in parent talk, e.g., affirmation, encouragement, praise, etc.

Intensive coding revealed that on an average, in 1 h professional parents uttered more different types of words, more multiclause sentences, more past and future verb tenses, more declaratives, and more questions of all types. One specific example

will suffice here regarding nouns: professional parents uttered 250 nouns per hour to their children, working-class parents uttered 150 per hour, and parents on welfare uttered 51 nouns per hour. A similar trend is discernable from Hart and Risley's findings regarding modifiers and multiclause sentences. What this means is that on an average, children who grow up in families with professional or higher SES parents are exposed to richer language and opportunities for language learning than children in welfare families.

In terms of outcomes, the way parents in different SES groups spoke to their children had an impact on the vocabulary growth, vocabulary use, and IQ of children at the age of 3. Aspects of parent talk that had the most impact on these three outcome measures were the number of words parents spoke per hour, the types of words they used, the number of multiclause sentences they used, and the types of questions they asked. Specifically the authors measured 3 outcome measures in the 42 children at the age of 3 which were strong predictors of later reading achievement: vocabulary growth, vocabulary use, and IQ. I will focus on vocabulary use as this measure is directly related to our research study.

Hart and Risley measured vocabulary use as the diverse types of words a child at the age of 34–36 months used averaged per hour. Though this outcome was strongly correlated with family SES, the parents' diversity of vocabulary was more strongly correlated with children's vocabulary use than SES.

Another study which focused on amount of talk was conducted by Price et al. (2009). This study, on interactional patterns between parents and children during shared book reading, was restricted to middle-class monolingual English-speaking families. The authors compared interactional patterns between the reading of narrative books with that of expository books. The former are stories (e.g., fairy tales) which have a specific story grammar that included the setting, climax, and coda. On the other hand, expository books were on technical subjects like volcanoes and dinosaurs and were informational rather than narrative.

The authors found that both parents and children talked more during the sharing of expository books as compared with narrative books. Quoting Hart and Risley's (1995) study, Price et al. (2009) emphasized the importance of measuring amount of talk in preschoolers, because amount of talk was strongly related to the trajectory of children's language learning. The amount of talk in Price et al. (2009) was measured through the Mean Length of Utterance (MLU) for both parents and children, a measure we have adopted in the current study.

Given this background, we coded student talk for amount of talk and quality of utterances in English-only classes and in classes where translanguaging was allowed. The studies discussed in the previous paragraphs, Hart and Risley (1995) and Price et al. (2009), focused on SES and genre of books as mediators for amount of talk. Also, these studies were on interactional patterns between parents and children, whereas we have coded teacher and student talk. Our focus is on differences in amount of talk in an English-only class vs a class based on translanguaging.

Figures 6.1, 6.2, 6.3, and 6.4 show amount of talk for children in the LSP during English-only vs translanguaging classes in Schools F and C. In these figures the

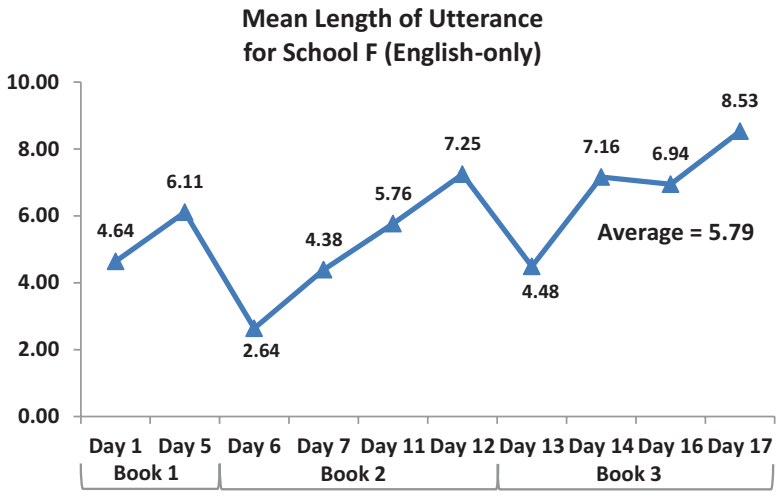

Fig. 6.1 MLU in School F during English-only lessons

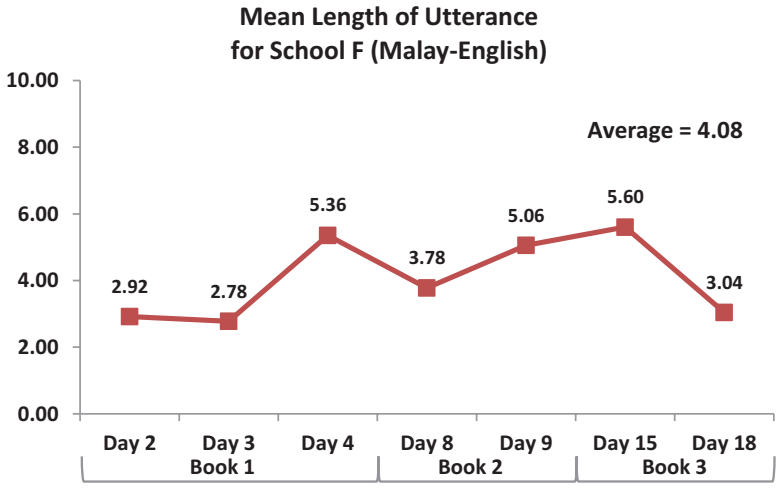

Fig. 6.2 MLU in School F during bilingual lessons (Malay-English)

average MLU for the class is shown on the right. The following, Table 6.1a, summarizes the average MLU for all four groups.

My hypothesis was that when children in the LSP were allowed to use their Mother Tongue, in this case Malay, their amount of talk would go up. However, in both the schools, our hypothesis was proven wrong. In both schools the amount of talk actually went down when the children were allowed to translanguage. Though in School F the students were producing 5.79 words and morphemes per utterance in English-only classes, when they were allowed to translanguage, they produced

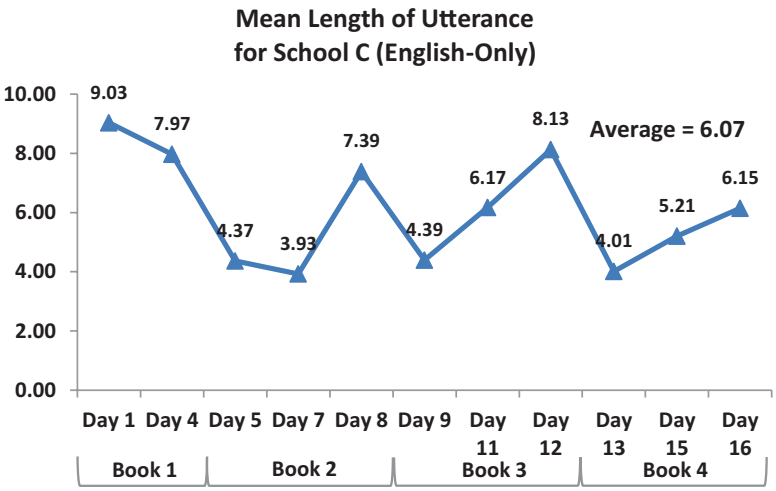

Fig. 6.3 MLU in School C in English-only lessons

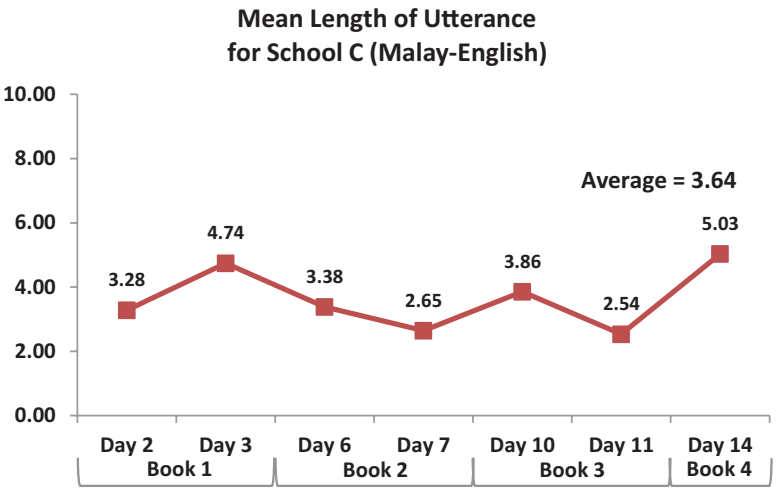

Fig. 6.4 MLU in School C during bilingual lessons (Malay-English)

Table 6.1a Average MLU in Schools F and C during English-only vs translanguaging classes

Schools/class type	English-only	Translanguaging (Malay-English)
School F	5.79	4.08
School C	6.07	3.64

only 4.08 words and morphemes per utterance. In fact, in School C, the amount of talk went down substantially: from 6.07 to 3.64 words.

One reason could be that the regular language learning environment of the children was profoundly disrupted due to the introduction of translanguaging. They are used to a school system where both their taught languages, English and Mother Tongue, are kept in separate compartments. This was the very first time they were allowed to bring both their languages into one physical and cognitive space within the school boundary in the classroom. Though translanguaging is common out of school, within the classroom the students were inexperienced in how to use both their languages for learning purposes. Another reason could be that some of these children are English dominant. Thus they are more comfortable talking in English than in Malay or Chinese. However, the quality of English they speak is more Singlish than English, and they are still weak in reading which is why they have been placed in the Learning Support Program.

In the Proof of Concept, we decided to teach Standard English to English-dominant children using their Mother Tongue as a resource, despite the fact that they speak more English than Mother Tongue. The impetus for this came from the theory of translanguaging where though one language may not be as dominant as the other, both exist in the same cognitive space and can be harnessed as resources to improve overall language learning. Equally important is the fact that both English and Mother Tongue are taught formally in the Singapore school system and the teacher can make reference to specific aspects of the Mother Tongue curriculum to teach English.

At the same time a few nuances in these data need to be mentioned. These nuances are regarding change in amount of talk from Day 1 to the last day of the intervention within each school.

The first nuance is that in School F in the English-only classes there was a substantial increase in MLU from Day 1 to Day 17. This trend is clear in Fig. 6.1, and it is summarized again in Table 6.1b. Thus the intervention regarding how to tell a story through shared book approach clearly had positive outcomes in School F. Though the children in School F uttered 4.64 words and morphemes per utterance on an average at the beginning of the intervention, they were using 8.54 words and morphemes per utterance on an average at the end of the intervention. This is clearly a substantial increase in amount of talk. When we look at Fig. 6.2, the trend is that even though there was an increase in amount of talk in those classes where the children translanguaged, the increase was not so substantial. In these classes the children started with 2.92 words and morphemes per utterance, and at the end of the

Table 6.1b MLU from Day 1 till Day 17 in School F

	Day 1	Day 17
School F: English-only classes	4.64	8.53
School F: Translanguaging classes	2.92	3.04

Table 6.1c MLU from Day 1 till Day 16 in School C

	Day 1	Day 17
School C: English-only classes	9.03	6.15
School C: Translanguaging classes	3.28	5.03

intervention period, they were producing approximately 3.04 words and morphemes per utterance.

An increase in amount of talk by students in a class where they are learning language is a goal that needs to be emphasized. In the LSP classes, there is very little writing: the focus is on oracy and reading aloud. When children talk more, they have the opportunity to experiment with new vocabulary and syntactical structures they have learned recently. The shared book approach provided these learning opportunities to students in both the English-only and translanguaging classes.

In School C the children displayed a drop in Mean Length of Utterance from Day 1 till Day 16 in the English-only classes. However, in the classes in which translanguaging was allowed, the children were producing more words and morphemes per utterance at the end of the intervention: 5.03 compared to a lower 3.28. Thus Tables 6.1b and 6.1c show that within each school, during the course of the intervention, the amount of talk did indeed go up with the exception of English-only classes in School C.

What are the reasons for this difference between Schools F and C in terms of outcomes? It is possible that the children in School F are English-dominant bilinguals, whereas those in School C are either more balanced bilinguals or Mother Tongue dominant. As mentioned earlier students in Singapore come from diverse linguistic backgrounds: EFL, ESL, balanced bilingualism, or dominance in one language. The hyperdiversity of language backgrounds in the LSP classes makes it difficult to speculate on the exact outcome of translanguaging pedagogy for each type of student.

Quality of Discourse

Having discussed the quantity of discourse, I now move on to an analysis of richness in discourse first in monolingual and thereafter in bilingual classes.

Interaction in Monolingual Classes (School F)

Exchange 6, presented in three parts, shows the quality of discourse in the LSP class in School F when the teacher had just started teaching a familiar book. The book in this case was the Ginn reader: Can We Help? The text is a level 2 reader with a few

sight words on each page (e.g., “look,” “help”) and large pictures. Most of the students in this LSP class were 7 year olds except one who had turned 6. The pictures show that a girl, Liz, was playing with her dog, Digger, in the garden while her parents were weeding and mowing. When Digger began to dig up the flowers, the father asked Liz and her dog to play elsewhere. Digger then took a hose pipe in his mouth and doused all the family members with water. On the last page a postman comes into the story and closes the tap which brings the dousing and the story to an end.

In Exchange 6.1 the teacher is helping the students interpret the picture in which Liz’s parents are weeding and mowing the lawn. The teacher’s question in turn 33, “Do you know what is mother doing?”, elicited an innovative though incorrect response. To help the students define the action, the teacher asked what the name of the machine was that the mother was using. Student S2 identified it as a vacuum cleaner in turn 34. In the highly urban landscape of Singapore where most people live in high-rise apartments, the weekend practice of working in a lawn is alien. S1’s question in turn 36 shows his/her surprise that a machine can actually “take grass out.” At this juncture, in turn 37, the teacher introduced a new lexical item: “mowing.” She spelled out the word for the class, and in turn 38 the children practiced saying this new word. From turns 39–43 there ensued a discussion on this new word and its implications. S2’s comment that he/she had never seen such a thing before allowed the teacher an opportunity to point out some lifestyle differences between Singapore and other countries. In turns 41 and 43 S1 chips in by commenting that he/she had seen a lawn mower on TV.

Exchange 6.1 School F Day 6

No.	Speaker	Utterance
33	T	Yes. ‘Kay, so, father is weeding. Do you know what is mother doing? She’s using…what is it?
34	S2	A vacuum?
35	T	Vacuum? Vacuum the- okay it looks like a vacuum cleaner but you don’t use a vacuum cleaner outside the house right? Um S1? ((to others)) Children, Jonathan, in the hall now. Go to the hall. Alright, look at the picture, ‘kay mother is actually cutting the alright, the grass, alright so that the grass don’t grow tall and short tall and short. They are about the same length with this machine. Okay, what is that called, anybody know?
36	S1	It will take grass out?
37	T	Mowing. Okay, that’s mowing okay. M-O-W-I-N-G.
38	All	Mowing
39	S2	I never see that before
40	T	Ah you never see
41	S1	I see that before
42	T	Ah because in Singapore we don’t have really ah that big a garden for you to mow alright, but in other countries there’s a very big garden in their house, they need to mow the grass. You can’t be doing this all the way.
43	S1	I see on TV

Exchange 6.2 School F Day 6

No.	Speaker	Utterance
51	T	Look carefully, what is Digger doing? Look carefully ah. S1?
52	S1	Smelling the flowers?
53	T	He's smelling the flowers? Okay look at his paws, what do you think he's doing? S2?
54	S2	Digging?
55	S1	Digging?
56	T	Digging?
57	S1	For bones?
58	T	Digging for bones? Okay. If he keeps on doing that what will happen to the plants?
59	S1	Die?
60	T	They die?
61	S2	Die.
62	T	Ah die, okay. Or they will- he's going to pluck off all the flowers. Can you see? Now you look c- look carefully, it's very important to look carefully at the pictures. Can you see the flowers on the floor?
63	S2	Mm-hmm.
64	T	Ah, this is what happens when Digger keeps on digging and digging and digging. Okay, and how does the boy look?

Exchange 6.2, like Exchange 6.1, demonstrates that students in the LSP need a lot of help in interpreting the pictures in the Ginn readers. The picture in this case shows the dog burrowing furiously in a bed of flowers and destroying them. When the teacher asked in turn 51 what the dog was doing, S1 replied with another question, suggesting that maybe the dog is smelling the flowers. S1's answer demonstrated that the student had not understood the problem the dog was creating. The point of the picture, and source of humor, is that Digger is actually hindering the parents' gardening. S2 comes closer to the meaning of the picture by suggesting that Digger could be digging; however even S2 does not notice the destruction that Digger is causing to the plants. The teacher had to explicitly point to this in turn 62 and remind the class that they must look at the picture carefully. As mentioned earlier the weekend practice of gardening was alien for Singaporean children though they had seen it on TV. More importantly the fact that the dog was destroying cultivated flowers was incomprehensible to the children. Thus due to lifestyle reasons and proficiency, the students in the LSP class are not able to interpret the stories in the Ginn readers.

Exchange 6.3 revolves around a page with the text "Look out Mum!" under a picture in which Digger is squirting water on Liz's mother. In turns 91 and 92, the teacher attempted to make sure the class understood the meaning of the phrase "Look out!", and S2 came close to the meaning by saying that it is "move away." However, in turn 94, S3 uttered the word "scared." The one-word response is quite common in the LSP class, which is why the Mean Length of Utterance in these classes is low for 7 year olds. The word "scared" demonstrated that S3 had not only

Exchange 6.3 School F Day 6

No.	Speaker	Utterance
91	T	Okay. Now you look at this word: "look out" Mum. Actually the word "look out" is telling mum to…?
92	S2	Move away
93	T	No, really move away? Look out, when someone else say to "look out!" they telling you to be…? Look out! Be…?
94	S3	((softly)) scared
95	S1	If you turn the page like that it's this this this
96	S2	Scared?
97	T	Okay to look out is more like to ask you to be careful. Okay, be careful! It's another way of asking you to be careful. Look out! Okay, because Digger is going to like S1 said water the mum already. Okay.

misinterpreted the meaning of the picture but was also unable to comprehend the story. S3 interpreted the expression on the mother's face as one of fear when in fact the mother is merely surprised to be doused by her dog. The fact that some students did not understand the connotation of the phrase "Look out Mum!" and misinterpreted the expression on the mother's face in the picture reinforces the fact that students in the LSP struggle with comprehension even in a level 2 Ginn reader.

Interaction in Bilingual Classes (School F)

In Exchange 6.4 the Malay-English bilingual research assistant was discussing the text "Liz and Digger" with Shahirah. I will discuss Exchange 6.4 in two halves: in the first half, from turns 1–19, the research assistant elicited a response in English from Shahirah about what was happening in the story in English. In the second half, turns 19–40, the student was encouraged to answer the same question through translanguaging. A comparison of the English-only vs translanguaging halves of this exchange reveals that in the latter section, the student was able to co-construct a substantial narrative that summarized the story.

Shahirah's response in turn 4 indicated that not only had she understood the problem in the story, she was even able to use some new lexical items like "tripped" and "root." Thereafter in turn 5 the research assistant asked her a key question: How did Digger solve the problem? This is a level 4 question; such questions were created for each of the texts to elicit responses which displayed extended oral utterances and deep comprehension of the story on the part of the students. In turn 6, Shahirah said: "by telling her parents." The response indicated that Shahirah did indeed understand the story and was able to say something about how the dog solved the problem.

Though Shahirah had answered the research assistant's questions, in turn 19 the research assistant encouraged Shahirah to discuss the story in Malay to give her a translanguaging opportunity. After some clarification, as Shahirah did not know that

Exchange 6.4 School F Day 4 Malay

No.	Speaker	Utterance
1	T	Okay can we turn to this page? Do you remember what happened to Liz here? What happened to her? What happened? What happened to Liz?
2	S	Liz…run.
3	T	Mhm.
4	S	But she never see down. So then she tripped over the root.
5	T	Okay, very good. Okay, then right, I asked you, how did Digger solve the problem? How did Digger help her?
6	S	By telling her parents.
7	T	And then the parents do what?
8	S	They run and follow Digger, where is Liz.
9	T	After that?
10	S	After that, her family helped her to go back home.
11	T	To go back home. How?
12	S	By going to the hospital, put some plaster.
13	T	Uhuh, okay.
14	S	Then go back home.
15	T	Oh. Because by the time we reached at the end right? She was already home right?
16	S	Ya, because what's this?
17	T	Bandage. Yesterday I said right. Remember?
18	S	Bandage
19	T	Bandage. Okay, so you can say everything in Malay also?
20	S	I think so.
21	T	Okay. What happened to, how did Digger, *macam mana Digger uh…selesaikan masalah ini?* (how did Digger solve the problem?)
22	S	*Selesai tu apa? (*What is *selesai*?)
23	T	*Selesai* means solve. So how did they, Digger um…settle this problem, solve this problem? *Macam mana?* In Malay. You can tell me.
24	S	*Digger tengah pegang* stick. (Digger is holding the stick)
25	T	*Abeh? Lepas tu?* (Then? After that?)
26	S	*Pas tu, Digger pusing. Digger ternampak. Pas tu, Liz suruh Digger balik rumah.* (After that, Digger turned around. Digger saw. After that, Liz asked Digger to go back home.)
27	T	*Mhm.*
28	S	*Bilang parent Liz. Suruh datang pergi ke Liz.* (To tell her parents. To ask them to go to Liz.)
29	T	*Lepas tu?* (After that?)
30	S	*Parent Liz cakap* run fast Digger. *Lari cepat.* (Liz's parents asked Digger to run fast. Run fast.)
31	T	*Lari cepat. Lepas tu?* (Run fast. After that?)
32	S	*Lepas tu, Digger bawak dia punya parent, Liz punya parent pergi kat Liz tolong dia.* (After that, Digger brought Liz parents to Liz, and help her.)
33	T	*Tolong dia. Macam mana tolong dia?* (Help her. How did they help her?)

(continued)

Exchange 6.4 (continued)

No.	Speaker	Utterance
34	S	*Angkat dia.* (Carry her)
35	T	*Angkat dia pergi mana?* (Where did they carry her to?)
36	S	*Hospital.*
37	T	*Hospital. Lepas tu?* (After that?)
38	S	*Balik rumah.* (Go home)
39	T	*Balik rumah? Okay. Lepas tu? Dah?* (Go home? Okay, after that? Finish?)
40	S	*Dah.* (Finish.)

Exchange 6.5 School F Day 4 Malay

No.	Speaker	Utterance
26	S	*Pas tu, Digger pusing. Digger ternampak. Pas tu, Liz suruh Digger balik rumah.* (After that, Digger turned around. Digger saw. After that, Liz ordered Digger to go back home.)
27	T	*Mhm.*
28	S	*Bilang parent Liz. Suruh datang pergi ke Liz.* (To tell her parents. To ask them to go to Liz.)

the Malay word "selesai" meant "solve," she attempted to answer the question in Malay and English. From turns 24 to 40 Shahirah reconstructed parts of the story for the research assistant. What seems clear is that the length of utterance in Malay is considerably longer than it was in English for this student. Also there are more links between parts of the utterance in Malay. An example is in the following Exchange 6.5, that we have extracted from Exchange 6.4. If we join the utterances above and below the teacher's "hmm," we get the following utterance: *Pas tu, Liz suruh Digger balik rumah (teacher's feedback) Bilang* parent *Liz.*

The utterance on either side of the teacher's feedback can be translated as follows: After that Liz ordered Digger to go back home to tell her parents. This utterance in Malay had an MLU of nine which means there are nine separate words and morphemes in this utterance ("Liz" is counted only once and all repeated words are counted only once). The utterance demonstrates the use of two prepositional phrases which added specific information. In turn 28 the student repeated in Malay, what she had said in English in turn 6, but also added an additional comment: *Suruh datang pergi ke Liz.* The additional comment, which meant "to ask them to go to Liz," was an attempt by the student to add specific information to what the dog actually told the parents. This additional comment was not included when Shahirah used only English.

In turn 32, which is one of the longest utterances in the data set, Shahirah came closest to answering the question. Utterance 32 is as follows: *Lepas tu, Digger bawak dia punya* parent, *Liz punya* parent *pergi kat Liz tolong dia.* Turn 32 is an utterance of unusual length. As Fig. 6.2 shows, the average length of utterance in the Malay-English bilingual group when this group was allowed to translanguage was

only 4.08. Utterance 32, on the other hand, has an MLU of 11 if we count all the words in this utterance and subtract the repeated words like "parent," "dia," etc.

At the same time, it is important to note that in English too Shahirah can produce utterances of longer length. For instance, she said: "After that, her family helped her to go back home." This utterance, with an MLU of 11, shows that Shahirah can describe the action of the story. However, in the case of the English utterance, Shahirah has made a mistake because Liz's family is helping her to the hospital and not to their home. However, when Shahirah brings her Malay resources to bear on the story, she is able to talk in longer sentences, add more detail, and display better comprehension of the story.

Interaction in Monolingual Classes (School C)

The transcript in Exchange 6.6 is from the first day of the book "Chicken Rice," a locally produced text, familiar to the students. Since this is the first day for this text, the students are not in their bilingual groups. The story is about Mr. Low who gives a well-known Singaporean dish, chicken rice, to his cat. The cat likes it so much that it shares the dish with its friend, a snake, who in turn offers it to a monkey. The monkey offers the dish to its friend, a chicken, who is shocked and terrified to receive this dish and runs away, leaving the monkey surprised.

At the beginning of Exchange 6.6 the teacher tried to elicit an interpretation of the picture in which the chicken is displaying shock and terror at being offered "chicken rice." In turns 99 and 101, the students try to find a word identifying the expression on the chicken's face. They produced words like "squawk" and "scary," displaying lack of vocabulary to describe a well-known emotion, though both words were related to the picture. The chicken is definitely "squawking" in the picture, and its expression could be interpreted as "scared." In the ensuing turns, one student misidentifies the chicken's expression as tearful. In turn 112 the teacher introduces the lexical items "scared," "terrified," and "shocked" to help the students correctly identify the chicken's expression and feelings.

"Why is the chicken terrified?" This level 4 question, the answer to which displays comprehension of the story, is introduced in turn 114. Though S7 attempts an answer in turn 115, the students' lack of vocabulary and grammar make the utterance incomprehensible. S4 offered the following response to this question in turn 117.

> Chicken is feeling so scary because he thought that her mother had been in the chicken that the Monkey go and cook it then become a chicken to eat. Then you scared because she will say that "Oh no! I won't see my mother anymore"

The impoverished vocabulary and mistakes in pronoun reference make this utterance equally difficult to understand. Specifically the use of the word "scary" displays shortcomings in vocabulary. Knowledge of vocabulary is a key indicator of reading comprehension. Though we do not have test results for the students in the

Exchange 6.6 School C Day 1

No.	Speaker	Utterance
96	T1	Oh look, what's happening here in this picture. Yes S7?
97	S7	The, the chicken ((demonstrates shocked look))
98	T1	The chicken "Oh!". Ok can you find a word to describe how Chicken is feeling? S5?
99	S5	Squawk.
100	T1	Squawk, he said squawk. And why is it, you know, the word is extra big and black with the exclamation mark. How is he feeling? S1?
101	S1	Scary
102	T1	He's scary?
103	S1	He's going to cry.
104	T1	He's going to cry? Ok, yes S3?
105	S3	Monkey gives the chicken, chicken rice. And the chicken saw it the chicken rice and the squawk is scared.
106	T1	He's scared. He's very scared. Yes, S4?
107	S4	He will feel like Monkey is giving him a surprise but that surprise is very bad.
108	T1	Oh, it's a bad surprise is it? So, ok, Chicken will feel or Chicken is feeling that Monkey is giving him a surprise, but it's a bad surprise for him. Yes, S7?
109	S7	The chicken think that it's his mother
110	T1	((laughs)) Ok, so the chicken thinks that maybe it's his mother that is inside this bowl. Chicken rice, yes, possibly. Ok, alright. So just now, I liked S3's word. S1 almost got it right as well. He's feeling, Chicken is feeling very scared. Ok. And if you feel very scared, or very shocked, ok, there's a word to describe this and that is terrified. Ok, everybody say terrified.
111	All	Terrified.
112	T1	Ok, so it's really very, very scared and shocked. Ok, so that's terrified. You can see, the perspiration, look at how big it opened its mouth. Ok alright
113	S4	T1, I will tell his question. He say like the mother inside the bowl, that means Monkey go and use the mother and cook it and then give it to the chicken to eat.
114	T1	Ok, so can you tell me why he's feeling terrified? I think S4 has almost got the answer, anybody else? Why is chicken feeling terrified? Yes, S7?
115	S7	That is because he think that is his mother. The chicken rice got another chicken because later "Ah! Mama, mama don't scold me".
116	T1	Don't scold me? Ok. Yes, S4?
117	S4	Chicken is feeling so scary because he thought that her mother had been in the chicken that the Monkey go and cook it then become a chicken to eat. Then you scared because she will say that "Oh no! I won't see my mother anymore"
118	T1	Oh so, you think that because he got a shock, he thought that maybe that is his mother that is inside. Ok. Interesting. Yes S3?
119	S3	The monkey give the Chicken chicken rice, the chicken saw the chicken rice and he scared later he will run away and not come back.

LSP, the transcripts presented in this book indicate that the students lack both breadth and depth of vocabulary in English. Breadth refers to how many words one knows, and depth is about how well we know the various forms of those words. Depth of vocabulary is further composed of paradigmatic and syntagmatic relations

between words. "Paradigmatic relations are nonlinear because they refer to hierarchical systems, for example, superordination (class-inclusion relations, e.g., a flower is a plant), subordinate (the type of flower, e.g., lily, freesia, tulip, rose), and part-whole relations (e.g., stem-flower). By contrast, syntagmatic relations are linear ones (e.g., a rose has a nice fragrance) and represent horizontal relations between items by providing information concerning the object's appearance, location, or use (e.g., 'a watermelon is sweet and tasty' - descriptive characteristic; or 'a hammer is something to pound with' - functional description)" (Schwartz et al. 2012). The utterances in Exchange 6.6 demonstrate limited breadth and depth of vocabulary.

Interaction in Bilingual Classes (School C)

In Exchange 6.7 the bilingual research assistant used Malay to teach the class the difference between the words "scared" and "terrified." In turn 166 the research assistant provided a translation for "scared" in Malay and emphasized that "scary" and "scared" are two different words with different meanings which cannot be used interchangeably. Thereafter the class is primed to learn the new word "terrified." In utterance 174 Malay is used to show the difference in degree between the two adjectives: scared and terrified. "Sangat-sangat takut" translates as "very scared," whereas "sikit sikit takut" is "a bit scared." Just as with homophones, with words connoting degree, translanguaging is a useful pedagogical strategy. In explaining the meaning of "scared" and "terrified," had the teacher used techniques involving sheltered instruction, it would not have been efficient. On the other hand, an elaboration using Malay made it easier for the research assistant to get at the heart of the meaning of these words.

Exchange 6.7 School C Day 2

No.	Speaker	Utterance
166	T1	*Ini macam dia punya janggut.* Ok *jadi*, in this story *dia rasa takut kan*. (*It's like its beard.* Ok *so*, in this story, *he feels scared right.*) In English, *takut* means?
167	All	Scared
168	T1	Scared. S5 is correct. Scary is not right. Ok, scared is correct.
169	S1	Afraid.
170	T1	Afraid. Yes is also correct. You can also use very very…what did you use?
171	S5	Too scared.
172	T1	Too scared? *Lagi? (What else?)*
173	S2	Very scared in the dark.
174	T1	S4. What's the word you use? *Kalau sangat-sangat takut kan* we can use terrified. Terrified. *Sangat-sangat takut. Kalau sikit-sikit takut* we can use scared, *tapi kalau sangat-sangat takut* we can use terrified. (*If we are very scared,* we can use terrified. Terrified. *Very scared. If a little bit,* we can use scared, *but if very scared,* we can use terrified) Ok. *Ingat tak? (Can remember?)* So everyone say, terrified.
175	All	Terrified.

Conclusion

This chapter has demonstrated the comprehension challenges children in the LSP encounter due mainly to lack of proficiency and sometimes due to culture. The limited vocabulary bank of LSP students, though they are 6 or 7 year olds, creates choke points in interpreting even simple stories in the Ginn reader. Translanguaging proved to be a useful approach to teach them the difference between words connoting degree. Furthermore, translanguaging allowed students in both the schools to produce longer utterances through which they could express themselves better. In one instance the culture of urban living in a densely populated country also posed a problem in interpreting stories which involved weekend practices like gardening that are not common in Singapore. However, culture was not as much of a stumbling block as lack of breadth and depth of vocabulary.

References

Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: Paul H Brookes Publishing.

Price, L. H., Kleeck, A., & Huberty, C. J. (2009). Talk during book sharing between parents and preschool children: A comparison between storybook and expository book conditions. *Reading Research Quarterly, 44*(2), 171–194.

Schwartz, M., Moin, V., & Leikin, M. (2012). Lexical knowledge development in the first and second languages among language-minority children: The role of bilingual versus monolingual preschool education. *International Journal of Bilingual Education and Bilingualism, 15*(5), 549–571.

Chapter 7
Interactional Patterns in the Chinese Group

Viniti Vaish

Abstract This chapter analyzes discourse in the Chinese-English bilingual group. Similar to Chap. 6, a calculation of MLU within schools has been attempted in this chapter. MLU was calculated for the same class in each school during monolingual pedagogy vs translanguaging pedagogy. As in the previous chapter, a calculation of MLU showed that students talked less when they were allowed to translanguage. However, analyses of teacher and student talk revealed that there were numerous instances where the teacher was successfully able to facilitate cross-linguistic transfer in teaching vocabulary and grammar. Specifically, exchanges in which the teacher attempted to create metalinguistic awareness and cross-linguistic transfer through translanguaging are analyzed. Thus the nature of interaction is somewhat different between Chaps. 6 and 7. Theoretically this chapter engages with the literature on cross-linguistic transfer to discuss the challenges in empirically proving the direction of transfer. Finally, this chapter discusses the limitations of translanguaging in the teaching of English and the shortcomings of this approach related to teacher training.

Introduction

Language shift in Singapore is a juggernaut that is hard to contain. Curdt-Christiansen and Sun (2016) in a paper analyzing two policy documents, the Review of Mother Tongue Languages Report of 2011 and Nurturing Early Learners Framework for Mother Tongue Languages developed in 2013, comment that part of the reason for language shift in Singapore is the lack of curriculum time given to Mother Tongue languages in preschool and primary school. The Review of Mother Tongue Languages Report of 2011 reports that preschoolers entering primary 1 (grade 1) increasingly come from English dominant homes:

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> Among ethnic Chinese students, the proportion of students with English as their most frequently used language at home rose from 28% in 1991 to 59% in 2010. Among Indians, the corresponding figures are 49% in 1991 and 58% in 2010. For Malays, the rise was from 13% to 37% over the same period (2011, pg. 29).

As the numbers indicate, the shift is the most substantial for the Chinese community and the least rapid for the Malay community. Chapter 2 discussed the way Malay children who come from homes where substantial amounts of Malay are spoken can be helped in the LSP class through the use of Malay. Though the language shift is more rapid for the Chinese and it is reasonable to assume that this trend will continue, as of now there are still at least 40% of Chinese children who come to primary 1 from homes where either Chinese is the dominant language or where substantial amounts of Chinese is spoken.

It is important to add here that data on the home languages of children in the LSP are not available. The two research projects on which this book is based were entirely school centered. In order to meet the budgetary guidelines of the funders, we had not added interviews or surveys of the parents into these research projects. What we know about the home language background of the children is from the teachers. For those children who come from Chinese dominant homes, the nature of Chinese spoken in Singaporean homes for various age groups needs clarification. According to the 2010 Census of Singapore, in the Chinese ethnic group 32% spoke English most frequently at home, 47.7% spoke Mandarin most frequently at home, and 19.2% spoke dialects most frequently at home (https://www.singstat.gov.sg/-/media/files/publications/cop2010/census_2010_release1/cop2010sr1.pdf). These data are for the resident population aged 5 and above, and thus there are definitely school going children included in this data set. Based on these data by Singstats, we can assume that the Chinese children in the LSP could be from homes where either English/Singlish, Mandarin, or a dialect of Mandarin is the dominant home language.

The first part of the findings for the Chinese-English bilingual group concerns Mean Length of Utterance. The challenges regarding calculating MLU in Chinese have already been discussed in the chapter on methodology, and I will not repeat them here. Also the MLU for monolingual classes has been presented in Chap. 6, and here I will merely repeat the numbers without showing the graphs again.

Figure 7.1 shows the average MLU of the children in the class on the days when they were allowed to translanguage: 3.89. The highest MLU recorded was on day 3 when the students produced 4.78 words and morphemes per utterance on average.

Figure 7.2 shows a higher average MLU for children in school C compared to school F: 5.05. What is noticeable is that when we compare translanguaging classes across schools F and C, the MLU for school C is substantially higher than it is for school F. These findings point to extreme diversity in the student body within the Chinese-speaking cohort of children. It is possible that the Chinese students who live around school C come from more Chinese dominant homes than children who live around school F (Table 7.1).

Comparing the MLU of children between the English-only and the translanguaging classes reveals trends similar to the Malay-English bilingual group. For the

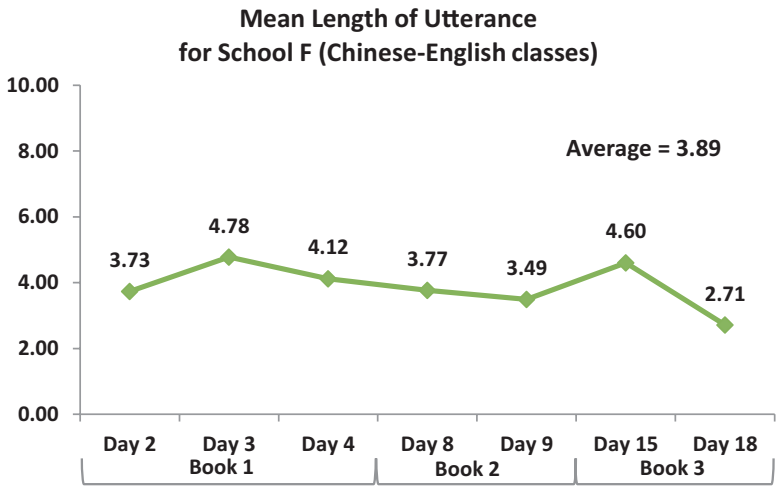

Fig. 7.1 MLU in school F during bilingual lessons (Chinese-English)

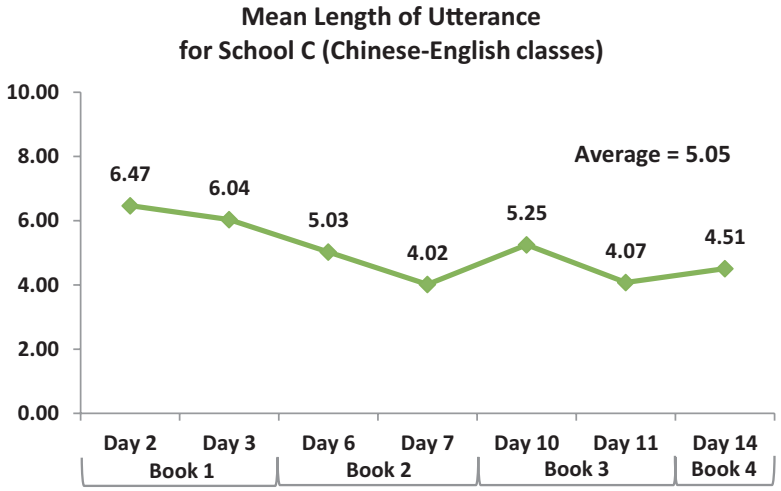

Fig. 7.2 MLU in school C during bilingual lessons (Chinese-English)

Chinese-English bilingual group, also the MLU for the bilingual classes is lower than for the English-Only classes. These data lead us to speculate that most of the children in the LSP class could be English dominant and their officially defined Mother Tongue, Standard Mandarin Chinese, is their non-dominant language. However, they are still weak in Standard English, especially in reading Standard English, which is why they are the LSP class. The fact that the children are weak in academic, skills their dominant language resonates with Lanza (2000) that dominance and language proficiency, though they are related, need not go hand in hand.

Table 7.1 Average MLU in schools F and C during English-only vs translanguaging classes

Schools/class type	English-only	Translanguaging (Chinese-English)
School F	5.79	3.89
School C	6.07	5.05

Yip and Matthews (2006) comment that MLU differentials in a bilingual child are a valid measure of language dominance and language use: the higher MLU in a bilingual child connotes the dominant language, while the lower MLU shows the non-dominant language. They also surmise that language transfer typically takes place from the dominant to the non-dominant language. In our study, we are looking at the average MLU of the entire group and not for each individual child. Directionality of transfer, though not the main focus of our study, is an intriguing concept. In our case, we are actually using the non-dominant language, in this case Chinese, to aid in the learning of English, the dominant language. The fact that in this research study we used the non-dominant language to support language acquisition in the dominant one requires clarification. Firstly, we need to establish that when we compare the MLU of the class in English-only vs the bilingual classes, we are actually comparing utterances in English-only vs translanguaged utterances and not, as in the case of Yip and Matthews (2006), between English-only and Chinese-only utterances.

The calculation of MLU for translanguaged utterances is controversial. Both Yip and Matthews (2006) and Bernardini and Schlyter (2004) do not calculate MLU for translanguaged utterances. In fact, Yip and Matthews (2006) discarded the translanguaged utterances from their data set. Bernardini and Schlyter (2004) stated that MLU in words "was counted for pure Swedish, French or Italian utterances and for the Swedish/French/Italian parts of the mixed utterances" (pg. 58). In other words, Bernardini and Schlyter (2004) did look at translanguaged utterances, but they only calculated the MLU for one part of each of those utterances. This method is intriguing because a part of an utterance is actually not meaningful; thus the rationale for calculating MLU for parts of utterances is not clear. My data has practically no utterances in Chinese only and relatively few utterances in Malay only. For this reason, we did not calculate the MLU in Malay only. This is yet another outcome of the fact that many children in the LSP are probably English dominant. Had they been Chinese dominant, we would have many Chinese-only utterances.

Bernardini and Schlyter's (2004) Ivy Hypothesis stated that "in the interaction meant to be in the weaker language, the child uses portions of higher syntactic structures lexically instantiated in the stronger language combined with lower portions of the weaker language" (pg. 49). To determine which is the stronger vs the weaker language, they use MLU and Upper Bound. Upper Bound, a term from Brown (1973), refers to the longest utterance in the data set. The shortcoming of Bernardini and Schlyter's (2004) use of Upper Bound is that they only look at the longest utterance in one language. In our data set, the longest utterances are, indeed,

translanguaged ones, though these are few in number and we cannot claim that students typically produced very long translanguaged utterances.

In using the non-dominant language as a scaffold for the dominant language (in this case using Chinese to teach English), I am convinced of bidirectionality in language transfer. Translanguaging theory contributes to the idea of language transfer in a fluid and organic way without being concerned with which one is the weaker/non-dominant language and which one is the stronger/dominant. In this regard, the study by Cenoz and Gorter (2011) is important not only because it is about translanguaging between three languages, it also makes a theoretical point about language transfer or, to use a more appropriate term, "cross-linguistic influence," between the languages used by a bilingual. This concept of cross-linguistic influence will be taken up later in the paper. Cenoz and Gorter (2011) analyzed the compositions of 165 secondary school students written in three languages: Basque, Spanish, and English. This cohort of 165 students was superdiverse because Basque was the L1 for 31% of the students, Spanish was the L1 for 46% of the students, and for the rest both Basque and Spanish were their L1s. The second or third language for the children was English. All 165 students wrote three compositions each in Basque, Spanish, and English. The authors found that skills across the three languages were related to each other even if the linguistic attributes of the languages were different. For instance, grammar in Basque is different from that of Spanish and English, and yet if the child had good grammar in Basque, he/she also demonstrated good grammatical skills in Spanish and English.

Most importantly Cenoz and Gorter (2011) make a point about multidirectionality of transfer. They write that "When analyzing the compositions, we observed that multilingual learners use their languages in multiple directions and do not transfer only from L1 to L2." For instance, the authors also found some evidence of transfer from L3 (English) to L2 (Basque), though there were few examples of this due to the fact that the children had low levels of proficiency in English. However, "these examples clearly indicate that cross linguistic influence is a multidirectional phenomenon that is not limited to transferring from the L1 to the L2" (pg. 363).

I will take up this idea further, later in this chapter, in the discussion on cross-linguistic transfer.

Quality of Discourse

In Exchange 7.1, during which the students were reading a locally produced reader titled *Chicken Rice*, the teacher was targeting near-homophones "then" and "than." She started, in turn 1, by asking the class to use the word "than" in a sentence, but a student used "then" instead. Realizing a chokepoint in comprehension, the teacher decided to use a bilingual label quest (Martin, 1999) and explained that "This is the 'then' you are talking about, this is *rán hoù*. Okay?" Having established that she was not referring to "then" but a different word altogether, the teacher asked the question again. This time, in turn 6, student S2 noticed a difference in spelling

Exchange 7.1 School C: Using Chinese to teach vocabulary

No.	Speaker	Utterance
1	T	Rice, chicken rice, okay? Get a small bowl of chicken rice for his friend. Okay. What about the "than" here? Can you tell me something about the picture using the word "than"? Yes
2	S2	Mr. Low cook a chicken rice after she cut the chicken rice into half, then Mr.- Mr. Low ((unclear)) took the rice and put it on a plate plus the chicken, then she eat it
3	T	Oh, okay. Now the "then." that you are talking about, okay, he cut the chicken rice, then he put it on a plate, the "then" you are talking about is this. This is the "then" you are talking about, this is *rán hoù*. Okay?
4	S1	*rán hoù (then)*
5	T	He cut the chicken rice, or the chicken, *rán hoù (then)* he put it in a bowl, *rán hoù (then)* he give it to his friend. This is the "then." But this "than" is what?
6	S2	The "A" and the "E" is different
7	T	Ah, correct. The "A" and the "E" is different. So this "than" is? S1?
8	S1	That "than" is T-H and A-N is "than." This one T-H-E-N is also "then"
9	T	Yes, but it's different meaning. This "then" is *rán hoù*. This "than" is..? Mr. Low likes chicken rice more than curry and fish. "More than". So this "than" here…
10	S2	Mrs. S
11	T	Wait. This "than" here is "more than," or "better than," which is what? *duō guò*. Okay? *duō guò (than)*. Ah Mr. Low likes chicken rice more than curry and fish. Means he likes chicken rice *duō guò (than)* he likes curry, *duō guò (than)* he like fish. Okay? So don't get mixed up. This "than" is "more than" or "better than". This "then" is-
12	S1	*duō guò (than)*
13	T	-"later on". Hm okay? "later on" this is *rán hoù (then)*. This is *duō guò (than)*. Okay? Yes

between the two words. She commented: "The "A" and the "E" is different." Though S2 used an incorrect verb, she had noticed a difference in spelling which was not noticeable before. Translanguaging thus served the function of stimulating metalinguistic awareness and helping the children notice fine-grained differences between words. However, the class was still not able to articulate the difference in meaning as was evidenced in turn 8 where S1commented: "That 'than' is T-H and A-N is 'than'. This one T-H-E-N is also 'then'". S1's use of the word "also" indicated that she thought "then" and "than" meant the same, though with a slight difference in spelling.

Indeed, articulating the difference in meaning between "then" and "than" would be challenging for the most experienced language teacher. Here the teacher decided to use both explanation and translation: "This 'than' here is 'more than', or 'better than', which is what? *duō guò*. Okay? *duō guò (than)*." In this utterance the teacher first explained in English that "than" means "better than" and thereafter translated the word into Chinese.

In Exchange 7.2, the teacher is teaching from the text *There's A Nightmare in My Closet*. She started this exchange by pointing to the past tense of the word use, "used," which student S2 was able to read correctly from the text. In turn 59 the

Exchange 7.2 School C: Using Chinese to teach grammar (past tense)

No.	Speaker	Utterance
57	T	Yes yes this trumpet huh. Ok I want you to take a look at this past tense here. What's this word?
58	S2	Used
59	T	Used So if it's present tense, it will be use, no "d" right. Ok
60	S1	But have the magic "e"
61	T	Yes. So use ok means *wǒ zài yòng nà gè dōng xī* (*I am using that thing*) *yòng* (*use*) ok
62	S1	There used to be nightmare in the closet
63	T	But this used means it's over *céng jīng* (*in the past*) alright yes *céng jīng yǒu yī gè è mòng* (*there used to be a nightmare*) Used past tense ok
64	S1	Is that like a ((unclear))
65	T	Hmm yes
66	S2	My turn
67	T	Ok wait. We're gonna move a little faster, I want you to take a look at the past tenses. Ok what is this?
68	S1	Magic "e"
69	T	Magic "e" yes but what's this "ed"?
70	SS	Closed closed
71	T	Closed yes past tense closed *guān le* (closed) ok *mén guān le* (*the door has closed*) but when you say close it will be *wǒ zài guān mén* (*I am closing the door*)
72	S1	*guān* (close)
73	T	So when its present tense means *wǒ xiàn zài hái zài zuò nà gè dòng zuò* (*I am still doing that action*)
74	S1	Because the picture it shows two times
75	T	Yes ok so I close the door, I'm doing it now Closed means it's over alright
76	S1	It's different from this. You see this one don't have a "d" but there have and there don't have
77	T	Yes correct so the "d" tells you it's past tense Ok what about… ah here this one. Yes
…		
100	T	Yes but decided is over, *jué dìng le* (*decided*) ok *jué dìng le* (*decided*) *guò le* (*past*) ok Alright let's move on ok What about this one? Girls what about this one? What's this?
101	S2	I know! Heard.
102	T	Heard correct. Present tense will be? What's this?
103	SS	Huh?
104	S1	Soon
105	T	No this one here

(continued)

Exchange 7.2 (continued)

No.	Speaker	Utterance
106	S2	Heard
107	T	Hear
108	S2	Hear
109	T	Hear. Hear means *tīng* (*hear*)
110	S1	*wǒ tīng dào le* (*I heard*)
111	T	Heard means *tīng dào le* (*heard*) correct yes. Ok so remember if it's past tense you will have the *le* ((to be used after an action)) there So the *le* ((to be used after an action)) is like you are adding in the "ed" and the "d" at the back Ok alright ah there's another one here. What's this?
112	S1	XXX

teacher introduced the object of this Exchange, present vs past tense, by saying, "So if it's present tense, it will be use, no 'd' right." At this juncture, in turn 60, student S1 made a metalinguistic comment regarding rules of language: "But have the magic 'e'." The teacher chose to ignore this metalinguistic comment, and rightly so, as it was not relevant to the current discussion on past tense. From turns 63 to 66, she focused on translating "use" and "have used" into Chinese to teach the children the difference between past and present tense. However, the Chinese language does not mark the past tense the way it is marked in English. It only marks the perfective aspect which is comparable to the "perfect tense" in English, for example, by using the grammatical particle "le." No doubt the teacher herself is not clear about the nuances of past tense formation in Chinese. In the spirit of design pedagogies (see Chap. 2), the teacher could have made a clearer presentation about the unique feature of Chinese (e.g., not marking past tense but marking only perfect tense) while comparing it to English which marks both the past and perfect tense. At the same time a detailed discussion on the differences in past tense formation between Chinese and English for students who are being initiated into simple past tense in English might not be the most appropriate approach at this juncture. Furthermore, though the teacher was bilingual in English and Chinese and had studied Chinese in school, it would be unreasonable on our part to expect her to know the rules of past tense formation in Chinese.

The discussion above points to one of the main challenges of using translanguaging in the classroom. What if the teacher, though bilingual, is not so proficient in the other language being used as a scaffold (in this case Chinese)? Also, what if the child is not very proficient in his/her non-dominant language, e.g., Chinese? This brings me to emphasize the design element in translanguaging. As Cenoz (2017) points out: "Pedagogical translanguaging is planned by the teacher inside the classroom and can refer to the use of different languages for input and output or to other planned strategies based on the use of students' resources from the whole linguistic repertoire. Design translanguaging pedagogies entail systematic planning" (pg. 194). Cenoz distinguishes this from spontaneous translanguaging which can take

place inside or outside the classroom but where the movement between languages is more fluid, or, as I understand it, more improvised. "Raise the BAR" did have the elements of design translanguaging; however, because the training period was extremely short and this was the first time translanguaging was being implemented in Singapore classrooms, the research team could not anticipate the challenges that would come in the way.

After the teacher showed the class another such pair of words, "close" and "closed," in turn 75, one of the students made another metalinguistic comment, this time a relevant one. In turn 76 student S1 commented that one word has a "d" but the other does not. Thought the verb "don't have" is incorrect, S1 had rightly noticed the morpheme that typically indicates that a word in English could be in the past tense. The teacher ended this part of the exchange in turn 77 by emphasizing the morpheme "d" and explicitly stating that "the 'd' tells you it's past tense." No doubt the "le" in Chinese is not exactly the same as the morpheme "ed" in English. All bilinguals know that no translation is exactly the same. However, there the purpose is to break down the silos between languages in the brain of the bilingual and facilitate a new perspective so that the speaker can look at both her/his languages together.

Turns 100 onwards are from the same lesson. In turn 100 the teacher asked the class to read the word "heard," which S2 read correctly. However, when the teacher asked for the present tense form of this word, the class was confused. In turn 107 the teacher supplied the answer. S1 and the teacher translanguaged to co-construct the pair of words "heard-hear" in turns 109–110. Thereafter in turn 111 the teacher used S1's response as an uptake to articulate the rules of tense formation in Chinese and English: "So the *le* (to be used after an action) is like you are adding in the 'ed' and the 'd' at the back". By placing the morphemes "le" in Chinese and "ed" in English together in this way, the teacher was trying to facilitate cross-linguistic transfer which is one of the foundations of translanguaging.

The concept of cross-linguistic transfer between Chinese and English has been researched by Zhang and Koda (2014). Specifically, Zhang and Koda examined morphological awareness and its relationship to reading comprehension in grade 6 Chinese students studying English as a foreign language in China. Their review of literature revealed that the relationship between morphological awareness and reading comprehension is already well established. What is under-researched is the idea of cross-linguistic transfer and exactly which grammatical features transfer between languages and which do not. Zhang and Koda have an intriguing research question in their paper: is metalinguistic awareness of morphology mediated by linguistic distance? Linguistic distance refers to the similarity or differences between languages in terms of grammar, morphology, phonology, etc. If there is similarity of rules between languages for a specific aspect of grammar or phonology, then the linguistic distance between them is less. Zhang and Koda (2014) point out that the linguistic distance between Chinese and English is considerable when it comes to morphological rules, which could be one reason that rules of morphology do not transfer easily between Chinese and English. For instance, they emphasize some unique aspects of morphology in English and Chinese: unlike English, Chinese relies mainly on compounding to form new words, and affixational morphology is

limited in Chinese. The authors consider these differences in morphology an aspect of linguistic distance, speculating that affixational morphology might not transfer from Chinese to English for students whose L1 is Chinese because Chinese has limited affixational morphology.

However, in this and other studies of this nature, the students usually have a clear-cut L1 and L2. For instance, in Zhang and Koda's (2014) study, the L1 of the subjects is Chinese, and they are learning English as a foreign language. Also, in many such studies, the reading ability of students is measured through tests comprising word lists or fill-in-the-blank-type questions. In our study, we are focusing on the speech or classroom talk of students to find evidence of metalinguistic awareness without any tests. More importantly the subjects in our study have diverse linguistic backgrounds. Most of them are simultaneous bilinguals though with varying proficiencies in their languages. Some of them could be English dominant but still have poor competence in English as they only hear Singlish in their homes and communities.

The most important point made by Zhang and Koda (2014) is regarding the linguistic distance between languages. They contend, and I quote in full:

> To what extent metalinguistic insights can be transferred or are 'transfer-ready' depends on the linguistic distance between the two languages. Presumably, those aspects of metalinguistic awareness that are critical to reading in both languages would be more likely to be transferred from one language to facilitate reading development in another language. On the other hand, facets that are more L1/L2-specific would be less readily transferable. (pg. 58)

Though I am intrigued by the concept of "linguistic distance," I also think it is hard to measure. For instance, would it be appropriate to say that the linguistic distance between Chinese and English is vast because the two languages have very different rules regarding morphology? In that case we could apply this concept further and speculate that the linguistic distance between Tamil and English is less than that between Chinese and English because Tamil has rich affixational morphology in which the morpheme is attached to the root word in similar ways as it is attached in English. This observation would, indeed, be very hard to prove, leading me to conclude that concept of "linguistic distance" has fundamental limitations.

As mentioned earlier, the concept of cross-linguistic transfer from the weaker to the stronger language is under-researched. In fact, even bidirectionality in language transfer is under-researched. In most cases, when scholars write about language transfer, they are referring to transfer from the L1 to the L2 (Ping and Liow 2010). For instance, Ping and Liow investigated morphophonemic transfer between Malay and English bilinguals through the use of written words. Their experiment was conducted with 21 Malay youth in Singapore aged 19–24 whose first language was Malay and second language was English. It is noteworthy that Ping and Liow collected a sample that they clearly define as L1 Malay and L2 English. Ping and Liow's (2010) study required a clearly discernible L1 and L2 and could not be conducted with simultaneous bilinguals who do not have a clear L1 and L2. They found that when confronted with nonsense words in English, their subjects were

better at making judgments about morpheme boundaries which were also present in Malay, substantiating Zhang and Koda's (2014) theory of linguistic transfer.

Very few studies discuss bidirectional transfer (Fabiano-Smith and Barlow 2010; Cenoz and Gorter 2011). Fabiano-Smith and Barlow (2010) investigated whether Paradis and Genesee's (1996) concept of deceleration, acceleration, and transfer occurred while Spanish-English bilingual children were acquiring phonetic knowledge in two languages. Deceleration refers to the slowing down of learning, in this case, learning phonology. Acceleration means a speeding up of the rate of language learning. They compared the phonetic inventories of three groups of children: Spanish monolinguals, English monolinguals, and Spanish-English bilinguals in an attempt to explore whether there is deceleration, acceleration, or transfer and whether monolingual children have a richer phonetic inventory than bilingual children. They found evidence of bidirectional transfer between Spanish and English and no evidence of deceleration. However, in Fabiano-Smith and Barlow's (2010) study, it is not clear whether the bilingual children were equally proficient in both languages or one language was dominant over the other.

Cenoz and Gorter (2011) studied the written compositions of 167 secondary school students who had Basque/Spanish as their L1/L2 and English as their L3. This is a rare study that discusses trilingualism. The 167 students wrote compositions in three languages: Basque, Spanish, and English. The authors evaluated the three compositions written by each of the students on the following measures: content, organization, vocabulary, grammar, and mechanics. They found significant correlations between the three compositions written by each student for all these components except organization, meaning that a student who, for instance, displayed good vocabulary in his/her Basque composition also did so in the English and Spanish composition. More importantly, Cenoz and Gorter found evidence of transfer from L3 to L2 and L1 and from L2 to L1 even though the three languages are vastly different. English is a Germanic language, Spanish is a Romance language, and Basque is an Indo-European language of unknown origin. Applying Zhang and Koda's (2014) terminology to Cenoz and Gorter's (2011) study, the linguistic distance between these three languages was vast, and yet, the authors contend, there was not only transfer but also reverse transfer between them. The evidence of transfer from English to Spanish and Basque was not very prominent as the children were not proficient in English. Though the authors asserted that there was evidence of transfer from the L2 to the L1 in all categories except organization, the examples they provided were mainly regarding transfer of vocabulary.

In the same study, Cenoz and Gorter also collected data from a social networking site called Tuenti which is similar to Facebook. On this site the same 167 students were discussing the homework they had to do regarding writing these compositions. The authors point to the use of hybrid texts on Tuenti, e.g., "spelling an English utterance using Spanish spelling conventions: ai nid jelp" (pg. 366). In this part of their paper, Cenoz and Gorter do not discuss directionality of transfer, which is their main focus in the case of the written compositions in Basque, Spanish, and English.

My assumption is that knowledge of phonology, syntax, and morphology can transfer between the languages of a bilingual though it is empirically challenging to

prove the directionality of transfer. However, this is an important growth area for the field of translanguaging since the theory is built on the entire linguistic repertoire of the bilingual and includes all his/her languages. Whereas code-switching methods and theory are rarely concerned with language transfer studies, translanguaging should and is engaging with this topic as in the study by Cenoz and Gorter (2011). Can transfer happen from the non-dominant to the dominant language of a simultaneous bilingual? Can this transfer be facilitated when the child is in a support program like the LSP because he/she is weak in both his/her languages? The theory of translanguaging does help us explore answers to these questions because it eschews a linear view of language transfer. Translanguaging views both the languages of the bilingual as inhabiting one cognitive and cultural space, and bilinguals can draw on this space in their brain to make sense of their world. In this view of languaging, there is no direction in transfer as both the languages make up one holistic unit.

This then brings us to the fundamental difference between code-switching and translanguaging, which was one of the issues this book started with. In a code-switching approach to language learning, it is essential to establish a dominant and a non-dominant language and then determine that transfer will happen from the stronger to the weaker language. In my data the bilinguals are weak in both their languages; thus making it hard to determine which one is the "stronger" language. What is more reasonable is that since the children are learning both languages in school and the goal of the school system is biliteracy, pedagogy should include translanguaging to maximize the learning potential of students. Especially in older children, like the 6–7-year-olds in the LSP, the knowledge of similar and dissimilar rules in their two languages should be made explicit. As shown through the Exchanges in this chapter, translanguaging increases metalinguistic awareness in English and a comparison of English and Chinese makes the children notice spelling patterns, etc. in English that they had missed earlier.

Limitations of Translanguaging

Exchange 7.3 begins with S4 reading aloud from the Ginn reader, "I Can Hide". The halting laborious decoding demonstrates that these 6–7-year-olds are unable to read even a Ginn reader with high frequency words. In turn 2 the teacher primed the class for a shift in language by saying that she was now going to use Chinese along with English. At first glance it would seem that perhaps the teacher was motivated to switch so that she could clarify the difference between "will" and "were." However, she went on to ask, "Where did Ben hide?", in Chinese, to which one student responded that she did not know the answer in Chinese. In line 4 the teacher assured the students that they could answer in English and thereafter S4 answered correctly: "Ben is hiding behind the curtain."

Having elicited the correct answer, the teacher should have realized that at this juncture there was no need to use Chinese. However, from lines 6 to 13, the teacher seemed to be focusing on teaching the students the Chinese words for "curtain" and

Exchange 7.3 School F

No.	Speaker	Utterance
1	S4	No, Ben. You can't help……you can't… hide in, er, here. ((pause)) ((unclear)) cannot… You will… I can……up…here. ((pause)) look……for Ben, Digger. … here… come, Ben. Look, Ben……I can't get… get down. ((unclear)) we will help you… we will… we will get… help
2	T	Ok good. Ok this word ah, it's not "were" this is "will." "Will" ok, "w-" "will." We will help you. We will get help. Ok very good. Thank you for waiting patiently. Ok, wait ah. Later when you read ah, just sit down, sit down sit down. Sit down first. Ok now, give out. No, we have no time to read read. Mrs. Poh just start the questions with you. Ok. Ready? Ok. Mrs. Poh just start. Now listen ah. I'm going to switch, I'm going to ask you question in Mother Tongue and English. Understand? Ok now if you look at the front page, *ok, lǎo shī yào wèn wèn tí lo. Ok, zuò jìn lái yì diǎn. Ok. Ben duǒ zài ná li?* (ok, *teacher want to ask questions already. Ok, sit nearer a bit.* Ok. *Where did Ben hide*?)
3	S2	I don't know what it is in Chinese
4	T	Ahh. Ben *duǒ zài ná li*? (*Where did Ben hide*?) Never mind you can use English to answer me.S1? Where is Ben hiding? Huh? Anybody know where is Ben hiding? Yes?
5	S4	Ben is hiding behind the curtain
6	T	Very good, perfect sentence, they say, "Where is Ben hiding?" Ben is hiding behind the curtains. Anybody know curtains in Chinese?
7	S1	*Máo jīn (towel*)
8	T	*máo jīn* is towel
9	S2	Ya lah
10	T	Ok, curtains is *chuāng lián*
11	S2	Oh!
12	T	Ah. *Chuāng- gài zhù zhè gè- chuāng lián. Chuāng lián, ok. Suǒ yǐ Ben duǒ zài chuāng lián de…* (*Window- cover this- curtain. Curtain, ok. So, Ben is hiding in the curtain's….*)
13	S2	*hoù miàn* (*behind*)
14	T	*hoù miàn*. (*behind*) Ok, behind the curtain. You see English and Chinese different ah. Chinese the word "behind" is… *chuāng lián de hoù miàn* (*curtain the behind*). In English it's "behind the curtains." Ok, *huá wén nǐ bù jiǎng 'hoù miàn de chuāng lián'.* (Ok, *in Chinese you don't say "behind the curtain."*) No, "behind the curtain" is not "*hoù miàn de chuāng lián*." (No, "behind the curtain" is not *"behind the curtain."*) It's "*chuāng lián de hoù miàn"* (it's "*curtain the behind*"). Ok? So what is curtain in Chinese? *Chua- chuāng lián* (*Curtain*)
47	S1	*chuāng lián* (*Curtain*)
48	T	*Chuāng, chuāng, chuāng* as in the window *chuāng… chuāng*. Window is *chuāng* right? Ok? And the one that you use to cover the window, is *chuāng lián* (*curtain*). Ok? Very good, now, come.

"behind" even though the student had already provided a perfect answer in English. Since the target language for this class is English, there was no need for the teacher to focus on Chinese vocabulary. In turn 14 the teacher went deeper into the differences between Chinese and English and pointed to word order. She commented that

though in Chinese the phrase would be constructed as "curtain the behind," in English it is "behind the curtain." Again, this discussion of word order is not based on any evidence in the interaction that the children have not understood word order in English. The discussion above points to the importance of having a clear understanding of the spirit and principles of translanguage pedagogies. Also, the design of translanguaging in classroom has to be prepared with teacher training in mind. Teachers need training and experience in choosing the junctures where translanguaging can aid language learning. Since translanguaging has not been allowed in traditional language learning classrooms, many teacher-education programs have not prepared teachers in using translanguaging effectively. Recognizing the junctures at which a switch is appropriate is an important direction for future research in teacher education.

Conclusions

This chapter has provided quantitative and qualitative results of translanguaging pedagogy regarding the Chinese-English bilingual group. The quantitative results were not as I had expected. My assumption, as with the Malay-English bilingual group, was that translanguaging pedagogy would increase MLU. However, in both schools average MLU went down in bilingual classes.

An analysis of the quality of discourse, presented through in-depth discussion of interaction, shows heartening results. Here we see exchanges of discourse where the teacher taught vocabulary and grammar through translanguaging pedagogy. In these exchanges student talk provided evidence that metalinguistic awareness was indeed stimulated pointing to the success of translanguaging pedagogy.

Finally, this chapter has also unearthed some theoretical and practical challenges in the path of translanguaging. Theoretically I argue that finding evidence for the direction of cross-linguistic transfer is fraught with pitfalls. Though translanguaging partly solves this problem because directionality of transfer is not essentialized in this theory, the bilingual is seen to be making meaning from one linguistic space that includes both his and her languages; at the same time more research is required to show evidence of transfer between languages. Practically, the design element of translanguaging pedagogy needs more attention in research. In the classroom, though improvisation is necessary at some junctures, planned pedagogy is crucial, which has fundamental implications for the way language teachers are trained.

References

Brown, R. (1973). *A first language: The early stages*. Cambridge: Harvard University Press.

Bernardini, P., & Schlyter, S. (2004). Growing syntactic structure and code-mixing in the weaker language: The ivy hypothesis. *Bilingualism: Language and Cognition, 7*(1), 49–69.

Cenoz, J., & Gorter, D. (2011). Focus on multilingualism: A study of trilingual writing. *The Modern Language Journal, 95*(3), 356–369.

Cenoz, J. (2017). Translanguaging in school contexts: International perspectives. *Journal of Language, Identity and Education, 16*(4), 193–198.

Curdt-Christiansen, X. L., & Sun, B. (2016). Nurturing bilingual learners: Challenges and concerns in Singapore. *International Journal of Bilingual Education and Bilingualism, 19*(6), 689–705. https://doi.org/10.1080/13670050.2016.1181606.

Fabiano-Smith, L., & Barlow, J. A. (2010). Interaction in bilingual phonological acquisition: Evidence from phonetic inventories. *International Journal of Bilingual Education and Bilingualism, 13*(1), 81–97.

Lanza, E. (2000). Language contact: A dilemma for the bilingual child or for the linguist. In *Cross-linguistic structures in simultaneous bilingualism* (pp. 227–245). Amsterdam/Philadelphia: J. Benjamins Pub..

Martin, P. W. (1999). Close encounters of a bilingual kind: Interactional practices in the primary classroom in Brunei. *International Journal of Educational Development, 19*(2), 127–140.

Paradis, J., & Genesee, F. (1996). Syntactic acquisition in bilingual children: Autonomous or interdependent? *Studies in Second Language Acquisition, 18*(1), 1–25.

Ping, S. W., & Liow, S. J. R. (2010). Morphophonemic transfer in English second language learners. *Bilingualism: Language and Cognition, 14*(3), 423–432.

Singapore, Department of Statistics. (2010). *Singapore census of population 2010, statistical release 1: Table 48 resident population aged 5 years and over by language most frequently spoken at home, ethnic group and sex*. Retrieved from https://www.singstat.gov.sg/-/media/files/publications/cop2010/census_2010_release1/cop2010sr1.pdf.

Yip, V., & Matthews, S. (2006). Assessing language dominance in bilingual acquisition: A case for mean length of utterance differential. *Language Assessment Quarterly: An International Journal, 3*(2), 97–116. https://doi.org/10.1207/s15434311laq0302_2.

Zhang, D., & Koda, K. (2014). Awareness of derivation and compounding in Chinese-English biliteracy acquisition. *International Journal of Bilingual Education and Bilingualism, 17*(1), 55–73.

Chapter 8
The Storytellers: Oral Retelling of Bilingual Children Struggling to Read in English

Viniti Vaish

Abstract This chapter analyzes the outcomes of our Proof of Concept. Specifically I focus on whether amount of talk, lexical density, and episodic structure improves when bilingual children, who are struggling to read in English, are given the opportunity to retell stories in English. 22 oral retellings by 8 Singaporean students (6–7 years old) in the Learning Support Program (LSP) in two schools were analyzed. The eight bilingual students were part of a study in which their home language was used as a scaffold to teach vocabulary and enhance comprehension in English. Each child presented oral retellings in English of stories based on four books taught in class. The books used were those in the curriculum of the schools. No attempt was made by the research team to change the books in the curriculum. The 22 oral narratives were qualitatively analyzed for amount of talk, vocabulary density, and episodic structure. The task had a within-subject design in that we measured the multiple stories told by each child for improvement in narrative skills. The extremely variable results, which could be because of the diversity in types of texts used in both schools, emphasize the importance of case-based approach in qualitatively coding the oral retelling of young learners. The chapter offers an in-depth analysis of the oral retellings of one student who benefited most from translanguaging pedagogy and produced excellent oral narratives.

Keywords Bilingual children · Singapore · Oral retelling · Struggling readers

Introduction

Oral language is one of the 11 variables which, according to the National Institute for Literacy (2008), consistently, though moderately, predicts later reading achievement. One way of creating a classroom rich in oracy is to encourage children to tell

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stories from either their own experiences or from texts that they are reading in class. Story telling is a decontextualized literacy practice which emphasizes the continuum between language and literacy. According to Snow (1983), "literacy and oral language are very similar and closely related skills which are acquired in much the same way" (p. 166). At the same time, one of the differences between the two is that in literacy children are expected to communicate in a decontextualized way which is a skill taught mainly in the formal context of school. Thus telling a story in school is not only a different skill from telling one at home but also one that has to be learned because in school children are expected to tell the story much like they would write it in well-developed paragraphs.

Background

Oral Retelling and Monolingual Children

The literacy practice of oral retelling has been used as a measure of comprehension for students who are fluent decoders but weak comprehenders by Applegate, Applegate, and Modla (2009). The focus of the authors was the link between fluency and comprehension in a sample of 171 children ranging from grades 2 to 10 in different types of schools. All 171 children were considered to be fluent readers by their teachers. Oral retelling was one component of the comprehension test used by Applegate et al. (2009) in which they measured both story grammar/episodic structure and personal response. The authors found that all the children identified as struggling comprehenders had the lowest scores for oral retelling.

The coupling between narrative and argumentative discourse was discussed by Shrubshall (1997) in a study comparing the narratives of monolingual vs bilingual 5–10 year olds. He wrote: "Stories have argumentative functions and can contain typically argumentative characteristics; for example, evaluation, judgment, question, and reflection" (p. 403). This relationship between narrative and argument is used by teachers during literacy practices like "show and tell" to teach children how to speak as if they were reading a well-written essay. Shrubshall analyzed the narratives of 18 children as they retold a story which was represented first by pictures and thereafter without pictures. The author's focus was episodic structure and the way the narrator evaluated the events/actions. He found that monolingual children produced more evaluative stories with better episodic structure than stories produced by bilingual children.

The study by Ukrainetz et al. (2005) was based on a fictional story shown to the subjects in the form of pictures. In a huge sample size of 293 children ranging from ages 5 to 12, Ukrainetz et al. documented the development of expressive elaboration. They defined expressive elaboration as consisting of 13 components organized into 3 broad categories: appendages, orientation, and evaluation. One of the limitations of Ukrainetz et al. was that the three broad categories were not discrete.

Furthermore, the analysis was across subjects of different ages performing the same narrative; thus the development could be due to factors like IQ, socioeconomic status, dominant home language, etc. Finally, the results of this study were obvious: the older children narrated better stories. In contrast to Ukrainetz et al. I have decided to focus on comparing multiple oral retellings by the same child on different books rather than on comparisons between children.

Oral Retelling and Bilingual Children

In the literature on oral retelling skills of bilingual children, usually narratives in both languages are measured. For instance, Gutierrez-Clellen (2002) analyzed the narrative performances of thirty-three 7–8-year-old Spanish-English bilingual children using story-recall and comprehension tasks. The story was first read aloud to the students; thereafter they were expected to retell the story one time in English and one time in Spanish without any modeling or props. Finally, comprehension questions were asked for each story. The key findings from Gutierrez-Clellen's study were that the children displayed equivalent ability in uttering grammatically correct sentences in Spanish and English. In one of the two stories that the children retold, they showed equivalent ability in producing temporal and causal sequences in both Spanish and English. At the same time most of the children in the sample exhibited better narrative recall and story comprehension in English than in Spanish.

Similarly Otwinowska et al. (2018) tested the narrative skills of 75 Polish-English bilingual 5 year olds raised in the UK. The researchers had two broad measures: macrostructure, which included story structure and comprehension questions, and microstructure, which included a calculation of lexical density through type token ratio and MLU. In our study, the measurement of story grammar is very much like macrostructure in Otwinowska et al.'s study though we asked comprehension questions before the child performed the oral retelling (See Chap. 3 for a table of literacy activities in the Proof of Concept). Also, in our Proof of Concept, the comprehension questions were part of translanguaging pedagogy so as to make sure the child understood the story before he/she provided an oral recall. Our measurement of content words and amount of talk are similar, though not exactly the same, as the measurement of Otwinowska et al.'s microstructure. Details of our coding procedures are provided in the section on methodology for this chapter. Another important similarity between Otwinowski et al.'s study and ours is the use of an adult model demonstration before the child gave his/her oral performance. In our Proof of Concept, this adult model was provided at the behest of the teachers because they did not think the children would know how to do an oral recall. However, in Otwinowski et al.'s study, the adult model is a unit of measurement as they measured the narratives of their subjects in Polish and English with and without an adult model. Their findings were that after modeling by an adult, macrostructure improved in both languages but microstructure did not improve in either language.

In our study, only narratives in English were measured because that is the language we were attempting to improve through translanguaging pedagogy. In a similar study on narratives, Hipfner-Boucher et al. (2015) also measured oral narratives in English, which was the medium of instruction in school, for bilingual students. Hipfner-Boucher et al. (2015) compared narrative competence among three groups of children: monolingual English speakers, English-dominant bilinguals, and bilinguals who heard English at home less than 50% of the time. The last group was called English minority children. 25 children in each group were measured on narrative macrostructure (story grammar) and microstructure (number of utterances, MLU [for words only], and number of grammatically correct sentences). Though the three groups performed similarly in macrostructure, the ELL minority groups had the lowest scores in all the components of microstructure.

Unlike the study by Gutierrez-Clellen (2002), Fiestas and Pena (2004) compared the performance of bilingual Spanish-English-speaking children across tasks. The researchers compared the narrative skills of children in both their languages across two different contexts and across two different elicitation stimuli. In one elicitation task, the researchers used a wordless picture book as stimulus and in the other a picture of a birthday party. For each stimulus, the 12 children in this study (4–6 year olds) produced 2 stories: 1 in Spanish and 1 in English. In terms of story grammar, or what Labov and Waletzky (1997) called episodic structure, the students included more initiating events in their Spanish stories, whereas they included more consequences in their English stories. Thus, the language in which the story was narrated did have an effect on the discourse complexity of the narratives.

As mentioned earlier, there are no standardized tests in either of the two research projects described in the present book; rather, an organic attempt to elicit oral narratives in English from the children is our measure of whether translanguaging pedagogy worked for children who have weak reading skills in English. According to Fiestas and Pena (2004), assessing the narrative production of children with language impairment and learning disabilities is becoming prevalent as compared with the use of standardized tests. One of the reasons for this prevalence is that the narratives that children produce show their ability to plan discourse at an extended level. In comparison, most standardized language tests evaluate children at the level of utterance. For instance, the well-known test DIBELS is not considered to be a test that can accurately measure comprehension (Reidel 2007). Thus, the detection of higher-level discourse abilities and disabilities might go unnoticed. After an extensive meta-analysis of 54 quantitative studies on oral retelling, Reed and Vaughn (2012) commented similarly on the value of oral retelling as a measure of comprehension. They point out that despite weak inter-rater reliabilities, retell tasks are an appealing complement to standardized tests because of their active reconstruction of text and relevancy to comprehension instruction.

Given this background, I explore the following research questions:

1. Did our translanguaging pedagogy work for the children in the LSP?
2. Were they able to demonstrate better comprehension, vocabulary, and grammar after 1 month of using their home language to access content in English?

Methodology

In Chap. 3, Table 3.2c, the second half of the table describes the activities in Raise the BAR. I will briefly summarize the main components of this program. Raise the BAR, which stands for Bilingual Approach to Reading, is the title of the translanguaging pedagogy implemented in three schools in Singapore in 2014. Implemented in Learning Support Classes, which consist of children who have weak reading skills in English, Raise the BAR was a new approach in which the teacher judiciously and systematically used the child's home language, in this case Malay and Chinese, to teach vocabulary, grammar, and comprehension in English.

The present chapter is about the last event in Chap. 3, Table 3.2c: the oral retelling by students, which typically occurred on Fridays. Every week a book was started on Monday. All the books were familiar to the students. On Tuesdays and Wednesdays, the teacher used translanguaging pedagogy to teach difficult vocabulary, specific grammatical rules (e.g., possessives), and comprehension. On each Thursday, the Principal Investigator and author of this book performed an oral retelling of the book in English as a model. And finally, on Fridays the children were supposed to volunteer to perform an oral retelling by themselves. On Thursdays and Fridays, the pages of each of the books were flashed on a PowerPoint though all the prose had been deleted. On some of these pages, we inserted the new vocabulary that the children had been taught. The children could refer to the PowerPoint to retell the story for the class.

Before going on to the findings, I want to emphasize the organic, bottom-up nature of this Proof of Concept. We tried our best not to disrupt anything except the pedagogy and the distribution of languages in the classroom. For this reason the books being used in class remained exactly what was prescribed in the curriculum. No doubt this presented a problem in measurement, especially in School C, where the books differed in number of pages, words, and difficulty. Our Proof of Concept unlike a formal intervention has no controls as it is like a preliminary study which could lead to a formal intervention. For instance, in the intervention studies by Otwinowska et al. (2018) and Hipfner-Boucher et al. (2015), the children selected for the study were grouped according to similarities in their IQ, home language background, and age. This kind of grouping was not possible for us in the super-diverse classes of the Learning Support Program. If, for instance, we had tried to group the children in the LSP according to home language background, we would have had very few children in each group due to the super-diverse nature of the class. Even in terms of age, the LSP is extremely diverse as the children are between 6 and 7 years of age. Also the high level of absenteeism made it difficult to group the children. In the tables below, all names are pseudonyms.

Tables 8.1 and 8.2 show the total number of oral retellings in the data set. The shaded cells denote non-performances: these children refused to perform the specific narrative because they were either having a shy moment or just did not feel like doing the task. Though the teachers and author encouraged the children to perform, they were not forced. In some cases two or three children decided to do a narrative

Table 8.1 School F

Pseudo name	1st Oral Retell	2nd Oral Retell	3rd Oral Retell
Shahirah	✓	✓	✓
Nicholas	✓		✓
Allen	✓	✓	✓(some inaudible audio)
Waylon	✓	✓	✓(some inaudible audio)
Shue Lee	✓		✓

Table 8.2 School C

Pseudo name	1st Oral Retell	2nd Oral Retell	3rd Oral Retell	4th Oral Retell
Brenna	✓	✓	✓	✓
Mike		✓	✓	✓
Adlyne			✓	✓

performance together; however, this was not included in the data set as it did not represent individual performance. There were 13 narratives in School F and 9 in School C, yielding a total of 22.

Coding Procedures

The 22 narratives have been coded for amount of talk, number of content words, and number of story elements or story grammar. Amount of talk refers to the total number of words in one narrative. There were a few reasons why we decided not to calculate the MLU of the utterances in the narrative as has been done by Hipfner-Boucher et al. (2015). Throughout this book, MLU has been calculated for naturally occurring speech in the classroom. However, the oral narrative is a speech event that was the outcome after some coaching and even an oral demonstration by the author. Also, MLU is a measure mainly of the morphemes and grammar that children have acquired and can display spontaneously. In the case of the oral narrative, we were checking to see if the children produce the specific vocabulary and grammatical forms that they had been learning that week. For these reasons, we decided to focus on content words and specifically watch out for new words that the children had been taught.

Content words were calculated by counting all the nouns, verbs, adjectives, and adverbs in the oral narrative of the student. Each word was counted only once. Prepositions and pronouns were not counted. Thus the "amount of words" produced

by each child was a larger number than the "content words" that she/he produced. We take content words to be a measure of lexical density.

Story grammar or episodic structure has been called macrostructure by Hipfner-Boucher et al. (2015) and Otwinowska et al. (2018). Despite the different terminology in all the studies, these terms refer to the components of a story in the Western tradition like setting, climax, problem, motivations of characters, etc. We coded for five elements of story grammar in narrative texts: setting, description of action, problem, motivations of characters, and solution. For the one expository text used in School C, we coded for two elements: description of action and articulating the sequence of events. The books used in Schools F and C are shown in Appendix A.

Findings and Discussion

Amount of Talk

In School F, there was an overall increase in amount of talk as students performed the narrative task multiple times, except for Waylon. Waylon's second oral retelling had more words than his first one, but the third one was considerably shorter than the first one. The other three children, Nicholas, Allen, and Shue Lee, showed a similar trend in that their final oral retelling had more words than their first one. In this school, Shahirah was an outlier in that her narratives showed an exponential increase in amount of talk (Fig. 8.1).

While looking at these results, it is important to keep in mind that, as shown in Appendix A under School F, each of the 3 books that the children were taught had

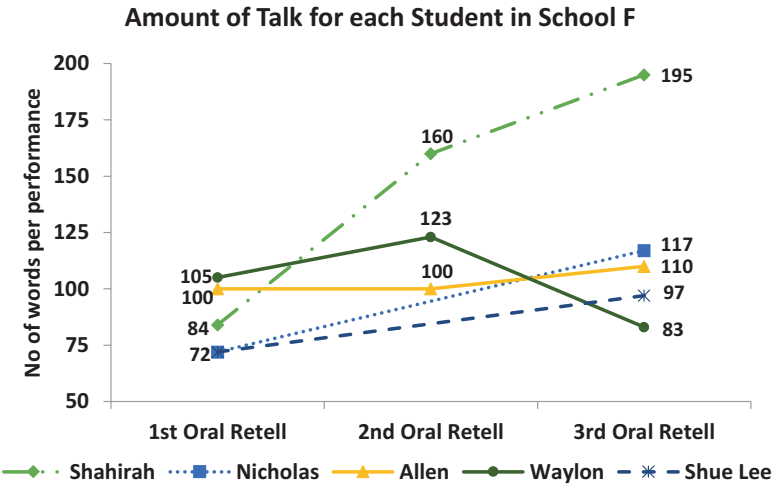

Fig. 8.1 Amount of Talk in School F

exactly 16 pages and were Ginn readers from level 2. Though the number of words in each of the books varied, the stimulus for the children was a PowerPoint presentation in which each of the pages was digitally represented without the prose text. Thus, the number of pages in the book was a more important aspect of the stimulus than the number of words in the book.

Figure 8.2 shows the number of words the children produced for each oral retelling. Clearly, in School C, the amount of talk went down with each oral retelling. If we follow the four oral retellings by Brenna, she actually decreased the number of words she uttered in the third and fourth oral retelling. Though she uttered 398 words in the first performance and increased this to 460 in the second one, her output went down to 329 words in the third performance and finally to 324 in the final oral retelling. Similarly, the number of words uttered by Mike and Adlyne in their second performance went down compared to their first performance.

It is possible that the amount of words produced by students in School C depended on the number of pages in each book (Appendix A, School C). The second book, *Big Hungry Bear*, had 31 pages compared with 16 in *Chicken Rice*. This could be one reason for increase in Brenna's output. In the third oral retelling, the book had 28 pages which could be one reason for the drop in Brenna and Mike's output as compared to their second oral retelling. The last oral retelling was based on a 16-page book. Though this could explain the drop in output for Brenna and Adlyne, it does not explain why Mike increased his output from the third to the fourth oral retelling.

Thus, a simple link between amount of talk and number of pages is not sustained by the performances of the children in School C or F. In the case of School F, all the books had 16 pages, and yet most of the children increased their output.

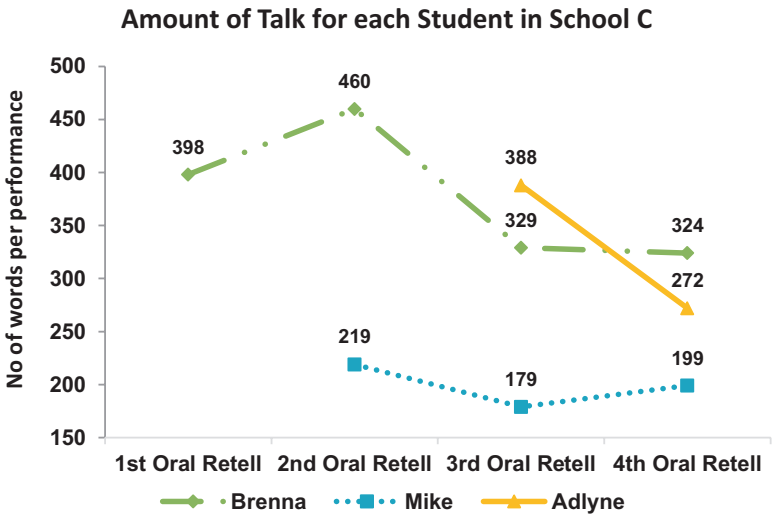

Fig. 8.2 Amount of Talk in School C

Lexical Density

Figure 8.3 shows that for most students in School F, the number of content words increased with each oral retelling. For instance, Shahirah had 22 content words in her first performance, which more than doubled to 49 in her second performance. In her third performance, the number of content words remained steady at 48. Nicholas and Shue Lee also increased their use of content words in their second performance though their increase was not as exponential as Shahirah's. The only student whose content words went down was Waylon: from 29 to 31 and then finally to 28.

In School C, multiple oral retelling did not increase the use of content words produced by the children, as depicted in Fig. 8.4. In the case of Brenna, though she increased her content words from 54 to 71 in her second oral retelling, this came down in the third and fourth oral performances. Adlyne's performance also showed a decrease in content words from 62 to 55. Finally, Mike's content words remained roughly the same with a slight dip in the second performance.

Both Schools F and C were given translanguaging pedagogy, and in both schools children were provided with a model of the oral recall; however, content words only increased in School F and not in School C. One difference between the two schools is the curriculum: whereas in School F the teachers were using the highly controlled Ginn readers, in School C the teachers preferred to experiment with different books as they thought that the students found the Ginn readers boring. It is possible that narrative competence is easier to measure when the texts being used are highly controlled in terms of number and quality of words and pages.

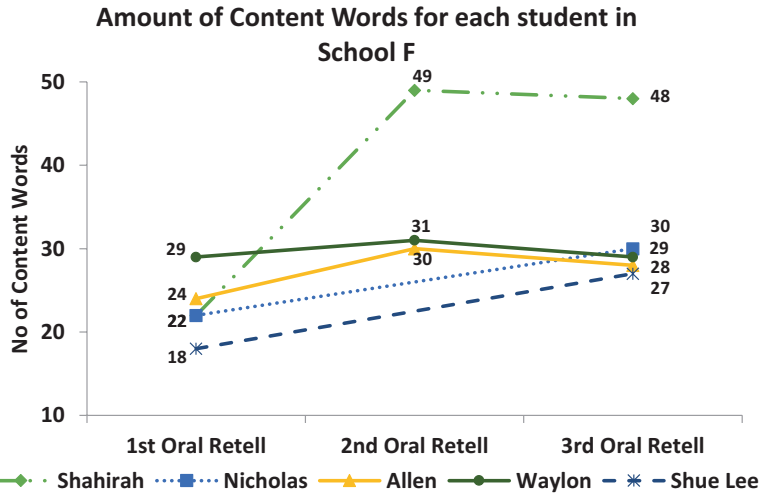

Fig. 8.3 Lexical Density in School F

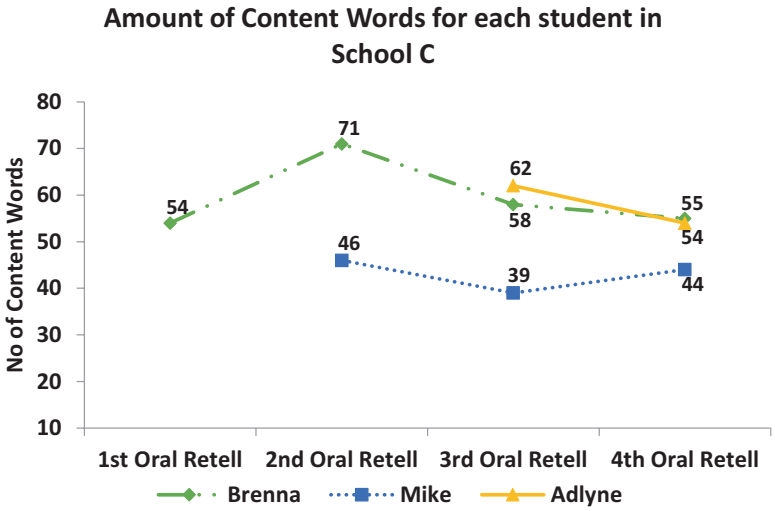

Fig. 8.4 Lexical Density in School C

Episodic Structure

As mentioned in Chap. 2, we coded for the following elements of story grammar: setting, description of action, identification of problem, resolution, and finally, the motivation and reaction of characters. For the fourth book, *A Butterfly is Born*, we coded only for two elements: description of action and articulation of sequence of events. The expository book was only taught in School C and not in School F.

Table 8.3 shows that some of the children in School F used more elements of story grammar with repeated oral retellings. Out of five students, Shahirah, Nicholas, and Allen used more elements in their second and third performances. On the other hand, Waylon and Shue Lee displayed the same number of story elements in each performance.

In School C only Mike showed a slight increase in sensitivity to episodic structure: in his second performance, he had three story elements compared to two in his first performance, as shown in Table 8.4. This came down to two story elements in his final performance; however there were only two elements in the expository book. Adlyne's story elements remained the same. Brenna showed a different trend in that her story elements dropped from four to two in the second performance and remained at two.

I now turn to an in-depth analysis of all the narratives produced by Shahirah as, according to her teacher, Ms. A felt that students like Shahirah benefit the most from translanguaging pedagogy. Shahirah, who came from a Malay-dominant home, was an articulate, vivacious child who actively participated in class. As documented in the previous sections, not only did amount of talk increase exponentially for Shahirah across her three performances, with each performance Shahirah displayed better understanding of the elements of story grammar and had more content words (Table 8.5).

Table 8.3 Number of Story Elements per performance in School F

Pseudo name	1st Oral Retell	2nd Oral Retell	3rd Oral Retell
Shahirah	2	5	5
Nicholas	3		5
Allen	3	4	5
Waylon	3	3	3
Shue Lee	2		2

Table 8.4 Number of Story Elements per performance in School C

Pseudo name	1st Oral Retell	2nd Oral Retell	3rd Oral Retell	4th Oral Retell
Brenna	4	2	2	2
Mike		2	3	2
Adlyne			2	2

Case 1: Shahirah's Stories

Shahirah's First Performance

She started with two elements in her first story: description of action and identification of problem. Lengthy descriptions of action, i.e., what is happening in the story, were the element with which children in the LSP were most comfortable. Shahirah, on the other hand, after going through the lessons for the second story and watching the demonstration by the author, understood that the oral retelling required a more structured performance on the students' part.

Shahirah's Second Performance

The second time Shahirah started with the setting: "Liz, Ben and Digger is going to gardening. Mum is mowing and Dad is weeding. And Liz is taking out the weed." Though in the first sentence Shahirah used an incorrect verb tense, she set the scene well in terms of the location of the action: the garden where the whole family is busy gardening. Shahirah then proceeded to describe the action of the story as enacted by the main characters: Liz (a girl), Ben (her brother), Digger (their dog, who is also the main protagonist), and the parents.

In her second attempt, Shahirah tried to use new vocabulary. Appendix A under School F lists eight new vocabulary items that were being taught through the text: *Can We Help*. In the second oral retelling, Shahirah used all the new vocabulary that had been taught, though she misused the word "twisted." She said "Liz got wet and

Table 8.5 Transcript of oral retellings by Shahirah

Shahirah's Oral Recall
1st (Day 5):
Liz can run fast. Liz and Digger went back home. Liz ask her Dad "Where can we run, Dad?" Dad tell Liz and Digger "You can run here." Liz and Digger can run fast together. [a][Liz trip over the roots. Liz ask Digger to look at her leg.] Liz ask Digger to run back home. Mum and Father tell "Where is Liz?" Mum and Dad follow Digger to Liz. Mum and Dad help Liz up to the hospital. Liz ask Digger to come here.
2nd (Day 12):
[b][Liz, Ben and Digger is going to gardening. Mum is mowing and Dad is weeding. And Liz is taking out the weed.] Ben ask Digger to stop digging the bed of flowers. Dad ask Ben to set up the hose. Liz is angry. Liz ask Digger to go back home. Dad thought that Ben is ready. But Ben is, was not ready. [a][Suddenly, Digger bite the hose and splash water to Mum. Liz ask Mum to move beside. Digger bite the hose again and Dad and Ben get wet. Dad stumbled and fall down.] [c][Liz is very rude. Liz is laughing at the side.] Liz, it's not funny. Liz also get wet and twisted. She al, almost going to stumble. Dad already fall down and Ben laugh at Liz. Ben and Liz get twisted. Digger go and splash Mum again and Dad run and get to save Mum. [d][Suddenly there was a postman helping the family to close the tap.]
3rd (Day 16):
[b][Once upon a time, Ben is hiding in the curtain. Ben ask Liz "Let's play hide and seek." Liz's friend is joining them and Liz's friend said to Ben "Can Digger join our game?" Ben is hiding in the bathroom.] Ben tell Dad "Can I hide in here? Because they want to catch me." Dad said "No, you can't hide in here." Ben is hiding on the laundry basket. Ben is going to Mother's room. [c][Ben tell Mum "Can I hide in here? Because they want to catch me." Mum said "No, you can't hide in here." Because Mum thought that Ben will mess up the Mother's room. Ben got a idea. Ben take the chair from the kitchen and bring outside. Ben step on the chair and Ben climb up the tree.] Liz tell Ben that "Are you ready Ben? We will look for you." [a][Finally Digger find Ben and Digger push the chair to another side. And Ben said Liz and Liz's friend that he can't go down. Digger thought that Ben is tall.] [d][Finally, Liz and Liz's friend take the chair up and put under the tree and Ben can go down.]

Note: [a][…] points out the element for description of action and identification of problem; [b][…] points out the element for setting; [c][…] points out the element for explicating the motivations and reactions of the characters; [d][…] points out the element for resolution of story

twisted." What she meant was that the hose pipe was twisted around Liz. Yet, Shahirah's miscue indicates that she indeed understood the meaning of the word.

With the strategic use of the word "suddenly," Shahirah moved to a new episode in her story: the problem. She said "Suddenly, Digger bite the hose and splash water to Mum. Liz ask Mum to move beside. Digger bite the hose again and Dad and Ben get wet. Dad stumbled and fall down." What Shahirah meant was that Digger had grabbed the hose pipe in his mouth and the dog's frantic movements were causing the whole family to get doused in the spray. The problem that Shahirah was narrating to the class occurred on pages 9–15 of the book "Can We Help." Only high-frequency words like "Look out Mum!" are printed on each of the pages. Thus, Shahirah was interpreting the pictures and situating the actions of the characters within the setting she had contextualized in the beginning.

Thereafter, Shahirah attempted yet another element of story grammar: explicating the motivations and reactions of the characters. In a brief comment, Shahirah

said: "Liz is very rude. Liz is laughing at the side. Liz, it's not funny." The sentence "Liz, it's not funny" is not in the book. Here Shahirah was adding dialogue of her own and recreating the moment by assuming that Liz's mother could have said that. Her interpretation of Liz's behavior was that Liz was being rude and her mother told her off.

Shahirah's Third Performance

In the third performance, Shahirah had five elements of story grammar. She started with the setting by describing the place and naming the people in the story. Going on to description of action, Shahirah articulated what Ben did with the chair. That brought her to the problem: "he can't go down." In other words, Ben could not get down from the tree because his chair had been taken away. In the sentence starting with "finally," Shahirah articulated the solution and the end of the story.

In this performance, Shahirah tried to use new vocabulary and attempted to apply a new grammatical rule that had been taught to the class. In the lessons leading up to the final narration of the book *I Can Hide*, the students were taught "possessives." The concept that possessives in English are formed by adding an extra sound was explained to Shahirah's group (the Malay-English bilingual group) by the Malay research assistant. This rule was explicitly taught during translanguaging classes. The research assistant also explained that the rules for possessives are different in Malay and English. Whereas in Malay the possessive is understood, in English there is an "s" that indicates the possessive. Shahirah used possessives in her third performance 3 times. Twice she used the phrase "Liz's friend." The double consonant at the end of the proper noun "Liz" was challenging for the students, but Shahirah articulated the word with gusto.

Figure 8.5 shows the percentage of time that Shahirah spent on each component of episodic structure. Of the five elements of story grammar documented in this chapter, "description of action" is the easiest, and thus most of the children spent a large amount of talk time and words on this episode. In her first oral retelling, 84.5% or most of the story that Shahirah told was a description of action. The rest of the first oral retelling was identifying the problem. However, Shahirah did not display any other element of story grammar in her first performance.

In the second performance, Shahirah did not overuse "description of action." On the contrary, this element of story grammar dropped to 52.5%. At the same time, Shahirah added other components of story grammar to her performance: she described the setting in 6.3% of her narrative and spent an equivalent amount of time on explaining the motivations of the characters in the story. In 13.8% of her narrative, she tried to identify the problem. Thus, Shahirah's second oral performance had many more elements of decontextualized literacy practices than her first.

Finally in her third oral retelling, "description of action" dropped to 24.6%. By this time, Shahirah had internalized the idea that this element of story grammar was not as crucial to the narrative as other elements. She spent a little more time on the motivations and reactions of characters: 29.7%. In each of the other elements of

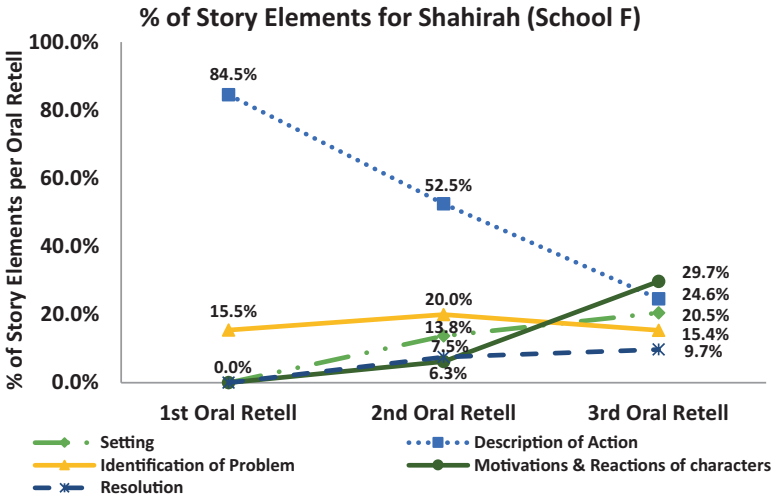

Fig. 8.5 Percentage of story elements in Shahirah's oral retellings

story grammar, setting, identification of problem, and resolution, Shahirah spent more time than she did in her second performance. The trajectory from first to third oral retelling described above shows that Shahirah understood the decontextualized nature of the literacy practice she was undertaking and she was deliberately trying to make her performance more like a written essay rather than a story told for private consumption.

However, as mentioned earlier, Shahirah is an outlier for who the translanguaging pedagogy worked extremely well. The others in the class did not show the same exponential development in their understanding of episodic structure. Their graphs were extremely variable meaning that though some elements of story grammar went up, others came down and there was no discernable trend.

Conclusions and Implications

This chapter was about the outcomes of Raise the BAR. Did this Proof of Concept improve English language acquisition for the children in the LSP? In School F, there was a discernable increase in amount of talk and some improvement in lexical density for most students. This is despite the fact that the students from School F came from diverse linguistic backgrounds. Only Shahirah in School F, according to the teacher, came from a highly Malay-dominant home. The three boys Nicholas, Allen, and Waylon came from homes where more English is spoken. Only Shahirah exhibited discernable improvement in story grammar. As the teacher in School F pointed out, Raise the BAR is an excellent pedagogy for students like Shahirah.

In School C, there was no improvement in amount of talk, lexical density, or story grammar. One of the reasons for the diversity of outcomes could be the diversity in the nature and length of books used in both the schools. As mentioned earlier, no attempt was made to change the curriculum of the schools, and our research team worked with the books the teachers thought were best for their students. The highly controlled vocabulary and content of Ginn readers created a homogenous set of materials for School F. This was not the case for School C where the curriculum consisted of a diversity of books. Also, it is possible that many of the children in School C come from English-dominant or rather Singlish-dominant environments. For these children, the use of their Mother Tongue, which is actually their weaker language, might pose further problems in comprehension. Though translanguaging does not essentialize directionality of transfer between the languages of a bilingual, and transfer could happen from the weaker to the stronger language, it is still important to find the correct pedagogy that will facilitate this transfer. More importantly the findings in this chapter point to the design of translanguaging pedagogy and the fact that this pedagogy should be finely customized for learners with different language backgrounds.

List of Books Used in Both Schools

Title of book	Key vocabulary words	Number of pages	Number of words in book
School F			
Liz and Digger	–	16	69
Can We Help	Gardening Mowing Weeding Bed of flowers Hose Stumble Twisted Postman	16	82
I Can Hide	Curtain Hide and seek Liz's friend Bucket Painting Laundry basket Mother's room Computer Climbing up Garden Branch Problem Under	16	105

Title of book	Key vocabulary words	Number of pages	Number of words in book
School C			
Chicken Rice	Hate Like Than Tasty Friend Terrified Terrible	16	242
Big Hungry Bear	Ladder Strawberry Pick Trembling with fear Hidden Nails Locked Disguised Hidden under the blanket Half The problem was Mouse had picked Was coming Ate The solution was	31	148
Nightmare in My Closet	Used to be Before Always Sometimes Decided As soon as Foot of the bed Quickly Was Took Tucked Closed	28	153
A Butterfly is Born	Flower Beautiful Nectar Hatches In a few days Eggshell Caterpillar Branch Pupa Crumpled In a few hours	16	162

References

Applegate, M. D., Applegate, A. J., & Modla, V. B. (2009). "She's my best reader; she just can't comprehend": Studying the relationship between fluency and comprehension. *The Reading Teacher, 62*(6), 512–521.

Fiestas, C. E., & Pena, E. D. (2004). Narrative discourse in bilingual children: Language and task effects. *Language, Speech, and Hearing Services in Schools, 35*(2), 155–168.

Gutierrez-Clellen, V. F. (2002). Narratives in two languages: Assessing performance of bilingual children. *Linguistics and Education, 13*(2), 175–197.

Hipfner-Boucher, K., Milburn, T., Weitzman, E., Greenberg, J., Pelletier, J., & Girolametto, L. (2015). Narrative abilities in subgroups of English language learners and monolingual peers. *International Journal of Bilingualism, 19*(6), 677–692.

Labov, W., & Waletzky, J. (1997). Narrative analysis: Oral versions of personal experience. *Journal of Narrative & Life History, 7*(1–4), 3–38. https://doi.org/10.1075/jnlh.7.02nar.

Otwinowska, A., Mieszkowska, K., Białecka-Pikul, M., Opacki, M., & Haman, E. (2018). Retelling a model story improves the narratives of Polish-English bilingual children. *International Journal of Bilingual Education and Bilingualism*. https://doi.org/10.1080/13670050.2018.1434124.

Reed, D. K., & Vaughn, S. (2012). Retell as an indicator of reading comprehension. *Scientific Studies of Reading, 16*(3), 187–217.

Reidel, B. W. (2007). The relation between DIBELS, reading comprehension, and vocabulary in urban first-grade students. *Reading Research Quarterly, 42*(4), 546–567.

Report of the National Early Literacy Panel. (2008). *Developing early literacy: A scientific synthesis of early literacy development and implications for intervention*. Washington, DC: National Institute of Literacy. IAD-01-1701 and IAD-02-1790.

Shrubshall, P. (1997). Narrative, argument and literacy: A comparative study of the narrative discourse development of monolingual and bilingual 5–10 year old learners. *Journal of Multilingual and Multicultural Development, 18*(5), 402–421.

Snow, C. E. (1983). Literacy and language: Relationships during the preschool years. *Harvard Educational Review, 53*(2), 165–189.

Ukrainetz, T. A., Justice, L. M., Kaderavek, J. N., Eisenberg, S. L., Gilam, R. B., & Harm, H. M. (2005). The development of expressive elaboration in fictional narratives. *Journal of Speech, Language, and Hearing Research, 48*(6), 1363–1377.

Chapter 9
Conclusions and Implications

Viniti Vaish

This book has explored the implementation of translanguaging pedagogy in an attempt to further the practice and theory of this extremely important concept. A collaborative effort on the part of researchers, teachers, the schools, and the students, this book is not about a formal intervention but a Proof of Concept. In other words, it is about a soft launch of translanguaging pedagogy in an educational landscape which is entirely based on the concept of two monolingualisms.

The book has situated translanguaging in the metrolingual landscape of a global city: Singapore. Like Singapore, other global cities like London, New York, and Hong Kong also face super diversity in the student body and have to deal with a plethora of languages in the school system. The difference is that Singaporean school-going students are part of one nation serviced by a central school system. Many of them do not have a clearly defined L1 and L2 in their early years as most of them grow up as simultaneous bilinguals. Also, in all the classes in Singapore, there are myriad home languages like Chinese, Malay, Tamil, and other languages from India and South East Asia. The situation is confounded by the fact that though students become English dominant due to the English medium school system, many are not necessarily more proficient in their dominant language. "Mother Tongue," the language of the ethnic group of the child, as it is defined by the government, is dynamic and not static. Diversity in Singaporean classes is a result of the fact that there are children who are Mother Tongue dominant, those who are English/Singlish dominant, and those who are fairly balanced bilinguals, all in the same class. In addition, due to Singapore's relatively open immigration policy, and the fact that one in three marriages in Singapore is between a Singaporean and a foreigner, there is what I would call hyperdiversity of language backgrounds in the Singaporean classroom. In a small class like the LSP which has five to ten students, it is possible

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that each student has a different language background, making it a challenge for the teacher to implement translanguaging pedagogy.

In the introduction to this book, Professor Angel Lin problematized the definition of translanguaging by comparing it with code-switching and linking the former with Thibault's (2011) distributed view of language which comprises first-order languaging and second-order language. According to Lin, translanguaging is first-order languaging, whereas the boundaries between named languages and grammatical rules prescribed by grammarians are more representative of second-order language. Thibault's is an " approach which recognizes that language is a cultural organization of process that is naturally grounded in human biology" (pg. 2). The measurement of interaction, according to Thibault, should not only include all bodily gestures but could also be measured in as small a unit as a Pico scale.

Though this book has not measured interaction on a Pico scale, the idea that translanguaging is first-order languaging and distinct from second-order language does, indeed, resonate with the findings of this book. For instance, my method of coding translanguaged utterances defies the rules of grammar. As mentioned in the chapter on methodology, many scholars discard translanguaged utterances in calculating MLU. However, I have included such utterances in my data coding because I take meaning rather than grammar to be of paramount importance. Thus coding translanguaged utterances as meaningful units is a way of looking at translanguaging as first-order languaging.

An Asian aspect of this book is the introduction of a new language in the literature on translanguaging: Malay. Of the three languages discussed in this book, Malay, English, and Chinese, Malay is highly underrepresented in the literature on translanguaging. As a language widely spoken in Southeast Asia in the countries of Malaysia, Brunei, Indonesia, and Singapore, it is important for translanguaging to diversify language data on which the theory is based. The more examples we have from diverse languages across the world, the more we will have the opportunity to test the boundaries of translanguaging. Though Chinese has been written about extensively, the context is still Chinese students learning English as EFL. The situation in Singapore, at least for some students in the LSP, is the opposite: English-dominant children learn Chinese as a second language in school. Thus the use of data from Malay-English bilinguals, and the context of Chinese students who are English dominant, is relatively new in translanguaging literature.

More importantly, culture in an Asian context has revealed some unique challenges of implementing translanguaging pedagogy. Li Wei's take on translanguaging in education is that it is not only "a space for the act of translanguaging" but also "a space created through translanguaging" (Li Wei 2011, pg. 1222). He develops the notion of translanguaging space "to focus on multilingual speakers' creative and critical use of the full range of their socio-cultural resources" (pg. 1222). At the same time, Li Wei also emphasizes creativity and criticality in these decisions which give agency to the interlocutors despite the improvisational nature of their speech. These keywords, creativity, criticality, and agency, impart a transformative role to the practice of translanguaging, which, indeed, is the most important aspect in a Proof of Concept. The new pedagogy that we implemented was, we thought, the

practice which would result in enhanced student talk, language learning, and a fundamental transformation of classroom interaction.

Did Raise the BAR, a design based on translanguaging pedagogy, work for the children in the LSP? Some variables, e.g., amount of talk and MLU, did not show discernable improvement due to translanguaging. Raise the BAR did, however, increase MLU for both the English-only and translanguaging classes in School F when we compare the same type of class from day 1 of the experiment to the last day. In other words, both in the English-only classes and in the translanguaging classes, the children were talking more on the last day as compared to the first day. In School C the MLU increased from day 1 to the last day only in the translanguaging classes but not in the English-only classes. These results lead me to speculate that if a design like Raise the BAR is part of the regular school curriculum, then we could see an increase in MLU for children though there is no guarantee that their MLU for translanguaging will overtake their MLU for English.

Similarly questioning patterns did not improve for either teachers or students. Where there was an increase in number of questions, it was for factual and procedural questions, which elicit lower-order thinking. However, it was in the analysis of transcripts that we saw the greatest potential for translanguaging as an approach to language learning. These Exchanges demonstrated how Malay or Chinese can be used as scaffold for English and how using two languages together can trigger metalinguistic awareness.

My use of Mean Length of Utterance as a measure of the outcomes of translanguaging is, no doubt, controversial. Typically qualitative methodologies for data collection and data analysis are privileged in translanguaging theory. Though my own training in graduate school has been in qualitative methods, while researching multiple pairs of languages in Singapore, I have grappled with how to come up with cross-linguistic measures. For instance, one problem was empirically establishing if students talk more when they are allowed to translanguage. Even if the school had data on language use in the home, this information does not necessarily predict the language dominance of the child which is dynamic and changeable. Using an empirical measure like MLU showed that the students in the LSP, on an average, did not talk more when they were allowed to translanguage in all the classes.

I have surmised that this could be both because they were unused to the practice of translanguaging in the class and because many of them were English dominant though weak in their dominant language. Another reason that needs to be emphasized here is the culture of pedagogy in an Asian context. Alexander (2001) in his intensive analysis of pedagogy in India, Russia, France, the UK, and the USA found fundamental differences in pedagogy between these countries on the basis of national policy, culture, and history. The teacher-fronted classroom of Singapore where most of the talk time is taken by the teacher and students rarely participate in class is diametrically opposed to a new culture that translanguaging pedagogy celebrates. This new culture is one that reinforces criticality and creativity and transforms interaction in the classroom by allowing the children to talk more by using all the linguistic resources in their repertoire of languages. The challenge for us was to

change the culture of the classroom through translanguaging pedagogy, which, our Proof of Concept, disrupted but could not transform.

Was it appropriate to teach them English reading skills through their nondominant language when, according to some studies reviewed in this book, the direction of transfer is from the L1 to the L2 and from the stronger language to the weaker language? However, what if the students are simultaneous bilinguals and don't have an L1 or L2? This sociolinguistic situation is another uniquely Singaporean and also Asian perspective where many children grow up simultaneous bilinguals. This situation is very different from an educational context in which the child has a well-defined L1 and learns an L2 as a second language, e.g., Chinese children learning English in China. Indeed, translanguaging for simultaneous bilinguals would be different from translanguaging for those with a clearly defined L1 and L2. As Martin-Beltran points out, "In a setting where two of the languages are available all of the time … the processes of the acquisition of two languages can occur simultaneously" (Martin-Beltran 2010, pg. 272). As the theory and practice of translanguaging develops, there should be more studies of simultaneous bilinguals acquiring multiple languages together as they are in the linguistic landscape of Singapore.

During the course of English medium education in Singapore, many children who were either Mother Tongue dominant or simultaneous bilinguals become English dominant, but what if the dominant language is the one in which the child is weak? In fact, what if both the dominant and nondominant languages are weak due to lack of resources in the home environment of the child? As analysis of interaction in this book has demonstrated, students made links between the languages they spoke even if they were dominant in only one of those languages. Transfer does not happen unidirectionally from the "stronger" L1 to the "weaker" L2, but it is multidimensional. Even the nondominant language, in this case Chinese and Malay, can be used as a resource by a skillful teacher in translanguaging pedagogy.

Though current theories for cross-linguistic transfer assume that transfer will take place from the L1 to the L2 or from the stronger/dominant language towards the weaker/nondominant language, these processes do not explain language transfer in simultaneous bilinguals. The theory of translanguaging has the advantage of not essentializing directionality of transfer and proposing a more fluid movement between languages without boundaries. In fact Cenoz even refers to "reverse transfer" where students can bring the rules of their L3 to interpret L2 (Cenoz 2017a, pg. 7). The implication is that direction of transfer is not as important as the fact that a bilingual or multilingual will use his/her entire linguistic repertoire to make sense of the world. My own predilection is to propose multidirectional transfer irrespective of dominance; in other words, English can be scaffolded by the child's Mother Tongue even if the latter is no longer his/her dominant language, given the appropriate pedagogy.

The growth area for translanguaging is measurement, designed pedagogy, and assessment. How do we measure translanguaged utterances and discourse? As mentioned in the previous chapters, most scholars discard translanguaged utterances from their data set when they measure MLU. My attempts at calculating MLU have definitely thrown up the problems in this type of measurement. More importantly,

how do we analyze student talk for evidence of language learning through translanguaging? Transcripts can be analyzed as units of discourse to showcase how the teacher uses translanguaging, as I have done in this book, and numerous researchers have demonstrated before. However, the crucial point is student learning. How can we develop assessment tools, especially quantitative tools, to measure the outcomes of translanguaging pedagogy?

One type of assessment could be the measurement of conceptual vocabulary in various pairs of languages. For instance, the word for "sun" in Tamil is "Surya." Drawing a picture of the sun and asking the child to say or write the words for this picture in all the languages that he/she knows could be one way of measuring conceptual vocabulary in bilinguals. However, these assessments would need to be developed for specific pairs of languages keeping in mind that many concepts do not have equivalent words in certain pairs of languages. My example offers only the most basic way of measuring vocabulary within translanguaging, and the field of assessment in translanguaging is, I believe, in need of new ideas in this area.

Finally, the field of translanguaging could benefit from more designs of specific pedagogic practices. As mentioned in Chapter 2, Cenoz (2017b) emphasized that "Pedagogical translanguaging is planned by the teacher inside the classroom and can refer to the use of different languages for input and output or to other planned strategies based on the use of students' resources from the whole linguistic repertoire" (pg. 194) and distinguishes it from spontaneous translanguaging which "refers to fluid discursive practices that can take place inside and outside the classroom" (pg. 194). Raise the BAR has shown that both design and spontaneous improvisation are imperative in the classroom as part of the same design. The Proof of Concept implemented in this book is merely exploratory, and the mixed results point to how challenging it is for teachers and researchers to use translanguaging in the classroom. For teachers the challenge is to spot junctures where they need to switch languages for a specific learning outcome. This, despite the most rigorous design, must be decided on the spur of the moment, making both spontaneity and design an integral part of implementing translanguaging pedagogy in the classroom. At the same time, the researcher should keep in mind that a formal intervention with standardized testing of homogenous groups is not suitable in an environment like the LSP where nearly every child comes with a different linguistic background and home language.

As Angel Lin has written in the introduction to this book, "research on translanguaging pedagogies is still very much in its beginning stage and there are still a lot of research questions to address (e.g. how to raise teachers' awareness and capacity in judging when and how to use translanguaging pedagogies; how to change school teaching and learning cultures to capitalize on translanguaging pedagogies with effective learning outcomes)." This book has probably thrown up more questions regarding translanguaging rather than answered them. These questions are regarding how we can design translanguaging effectively in a hyperdiverse classroom, how we can measure outcomes of translanguaging, and how we can create transformation in student talk by allowing them to use all the languages in their repertoire. Future researchers in the field of translanguaging need to address many of these questions.

References

Alexander, R. (2001). *Culture and pedagogy: International examples in primary education*. New Jersey: Wiley.

Cenoz, J. (2017a). Translanguaging pedagogies and English as a lingua franca. *Language Teaching*. https://doi.org/10.1017/S0261444817000246.

Cenoz, J. (2017b). Translanguaging in school contexts: International perspectives. *Journal of Language, Identity & Education., 16*(4), 193–198. https://doi.org/10.1080/15348458.2017.1327816.

Martin-Beltran, M. (2010). The two-way language bridge: Co-constructing bilingual language learning opportunities. *The Modern Language Journal, 94*(2), 254–277.

Thibault, P. J. (2011). First-Order Languaging Dynamics and Second-Order Language: The Distributed Language View. *Ecological Psychology, 23*(1), 1–36.

Wei, L. (2011). Moment analysis and translanguaging space: Discursive construction of identities by multilingual Chinese youth in Britain. *Journal of Pragmatics, 43*, 1222–1235. https://doi.org/10.1016/j.pragma.2010.07.035.