Use of Verbs in Teacher Talk: A comparison study between LETs and NETs

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Abstract

Using the framework of Halliday's functional grammar (1994), this study analyses the data of a locally-compiled corpus, *CELT*, with a specific concern for what and how meanings are constructed and conveyed via the use of verbs in local English teachers (LETs) and native English teachers' (NETs) classrooms in Hong Kong. An analysis of the top-ten lexical verbs indicates that given the socio-cultural and linguistic differences in the teachers' background, teacher talk by LETs and NETs share certain similarities. Both groups use language in doing (material process), feeling and perceiving (mental), saying (verbal process) and explaining (relational/existential process). The analysis also reveals some differences. While the two groups share 60% of the top-ten lexical verbs, they use the same items in different ways. LETs tend to use an item in its basic sense, making a clear boundary between process types; NETs, on the other hand, use a word in different senses and in figurative speech, thus transforming one process to another. Although small in scale, the study has some pedagogical implications for teaching and learning English in the Hong Kong context.

Introduction

Using the framework of Halliday's functional grammar (1994), this study analyses corpus data with a specific concern for what and how meanings are constructed and conveyed via the use of verbs in local English teachers' (LETs) and native English teachers' (NETs) classrooms in Hong Kong.

The paper contains six sections. First, the aims of the study and the structure of the paper are described, followed by a review of the literature regarding the scope of the issue and approaches and techniques employed for the studies. The major concerns of the study, including the rationale, the data base and data processing procedure are then outlined. Patterns of verb use by the two groups of teachers are described, with reference to Halliday's functional grammar. Finally, the findings are interpreted and pedagogical implications of the study for teacher education are highlighted.

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Studies of Teacher Talk

Teacher talk has long been an interesting topic for teacher educators and applied linguists because of its role in classroom interaction (Sinclair & Brazil 1982; Nunan 1989; Lynch 1997; Johnson 1998); and its impact on learners' second language development (Ellis 1984, 1994; Tsui 1995). A literature review of studies of teacher talk over the past three decades provides a long list of issues investigated including: linguistic features of teacher talk (see Larsen-Freeman & Long 1991); pedagogical functions of teacher talk (e.g. Cazden 2001) and its possible impact on learners or learning (e.g. Tsui 1995); and modification of teacher talk when interacting with language learners (see Chaudron 1988).

It has been common practice in studies of teacher talk for researchers to first identify forms used by the speaker, then categorize them in terms of speech acts. This practice can be traced back to a long tradition, where form and function are regarded as separate disciplines (Crystal 1994). Halliday's functional grammar (1994) has contributed to the linguistic field by integrating the study of syntax with that of lexis and semantics. For Halliday, language represents a human being's experiences with the world. The grammatical system that people use helps impose order on their experience and capture the flow of various events (op cit:106-107). In this sense, meaning and form become inseparable. Instead of imposing meaning on form, meaning is embedded in form. Halliday's approach has been used in education studies. Young and Nguyen (2002), for example, compare two modes of presenting physics concepts in science classes; Iedema (1996) explores the means of modulation used by primary teachers. This integration of form and meaning provides a new direction for studies of teacher talk.

Conceptualizing and describing teachers' linguistic behaviour using a checklist was common in the 1960s and early 1970s (e.g. Flanders 1960). This method enables researchers to cover a large quantity of data in a manageable way, but it has been criticized for its lack of objectivity, reliability and accuracy due to the arbitrary nature of the categories in the observation scheme (Bailey 1975). Verbatim transcripts of recorded lessons since the late 1970s have given researchers opportunities to analyze patterns of teacher talk in detail (e.g. Sinclair and Coulthard 1975), but the large number of variables involved and the labour-intensive job of transcription makes it difficult to apply to large scale studies. With the help of computer-assisted techniques, corpora, on the other hand, are able to manage and manipulate a large quantity

of data, and therefore, provide empirical evidence of general patterns of language used by speakers.

Corpora have been applied increasingly in language teaching since the early 1990s (e.g. Johns & King 1991; Wichmann et.al. 1997; Granger 1998, Hung 2002). Leech (1997:6-10) summarizes the activities in this regard as 'teaching about (corpora), teaching to explore (corpora) and exploring (corpora) to teach. According to Leech, corpus data can be applied "in virtually all branches of linguistics or language learning". However, corpus-based studies of teacher talk still seem to be rare in the field.

Framework of the current study

Based on an understanding of the scope and issues in the research of teacher talk as revealed in the above literature review, this corpus-based study analyzes features of teacher talk with reference to Halliday's functional approach, where form and functions are integrated as one.

The general concern is to understand what kinds of meanings LETs and NETs construct and how these meanings are constructed and conveyed in their talk. A central element to this concern is the use of verbs, which play a decisive role in the categorisation of meaning in functional grammar. According to Halliday (1994:106-107), six process types, in which verbs are embedded, are able to capture a complete range of meanings expressed through human language. They are 1) the material process, representing a speaker's external experiences of the world; 2) the mental process, representing internal experiences; 3) the relational process, relating fragments of experience to one another, and the other three borderline cases, namely, 4) the behavioural; 5) the verbal; and 6) the existential process. Through an analysis of verbs in relation to the processes, meanings constructed and conveyed by LETs and NETs in their classrooms will be compared. The possible impact of the teacher talk in the classroom will then be inferred and discussed.

The corpus used in the study is the Corpus of English Language Teaching (*CELT*) compiled at The Hong Kong Institute of Education. *CELT* contains two related sections: *LET*, using data from classrooms of local English teachers; and *NET*, from native English teachers. Each corpus, in turn, contains two levels: namely, primary and secondary. The first phase of the project, completed in Oct. 2002, focused on the primary level. It includes 73,650 words (tokens), among which 38,000 are from LETs and the rest from

NETs. The LETs are qualified primary English teachers at certificate level; the majority of NETs are participants of the government native English teacher scheme. The study is based on the data from the first phase.

Authentic lessons were recorded in the teachers' classrooms and transcribed verbatim. Turns in classroom interaction were tagged T or S/Ss based on whether the teachers (T) or student(s) (S/Ss) were engaged in the interaction. All the verbs in the teacher talk were tagged as lexical or auxiliary/modal. Only lexical verbs were subjected to analysis as they are the index of process types, from which meanings are derived. Using the concordance tool, *WordSmith*, the top-ten verbs were generated from the tagged data, then categorized with the help of Hallidays' framework of the six process types. Because meaning does not belong to a single word, but to the phraseology as a whole and from its environment (Sinclair, 1991), a concordance analysis was also undertaken to clarify any ambiguities of the lexical verbs involved.

Analysis

Wordlist analysis

Tables 1 and 2 compare the raw data from the *LETs* and *NETs*. Tables 3 to 6 display a summary of the verb-list analysis following Halliday's framework.

Table 1: The *LET* top-ten verb-list

No	Item	Raw Entry	Frequency	Normed Frequency (per 1000 words)	Lemma
1	be*	985	3.18%	25.5	am(17) is(746) are(158) were(1) been(1)
2	ask	175	0.56%	4.6	asks(11) asked(3) asking(9)
3	like	169	0.55%	4.4	likes(35)
4	do*	168	0.54%	4.4	does(2) doing(32)
5	want*	162	0.54%	4.2	wants(18)
6	come	161	0.52%	4.2	comes(22) came(1)
7	look	145	0.47%	3.8	looks(1)
8	have*	145	0.47%	3.8	has(28) have got(4)
9	see*	137	0.44%	3.6	
10	say*	130	0.42%	3.4	says(9) said(13)

Table 2: The *NET* top-ten verb list

No	Item	Raw Entry	Frequency	Normed Frequency (per 1000 words)	Lemma
1	be*	550	2.57%	20.5	am(5) is(309) are(103) was(59) were(13) been(4)
2	say*	178	0.83%	6.6	says(33) said(2) saying(3)
3	have*	154	0.72%	5.7	Has(9) had(24) have got(6)
4	see*	104	0.49%	3.9	saw(5)
5	do*	90	0.42%	3.4	doing(7) did(26)
6	Think	87	0.41%	3.2	thinks(5) thought(3)
7	Go	86	0.41%	3.2	goes(4) going(1) went(29) gone(2)
8	want*	69	0.32%	2.6	wants(14) wanted(4)
9	Get	65	0.30%	2.4	gets(3) getting(7) got(21)
10	Know	62	0.29%	2.3	knows(1)

The raw data in Tables 1 and 2 indicate certain similarities and differences between the *NET* and *LET* data. First, all the top ten items are simple words with only one syllable. Except for 'think' with five letters, these are all two to four-letter words, of primarily Germanic origin. Second, six verbs (marked with * in the tables) are common to both LETs and NETs in their top-ten lists, among which 'be' occupies the first place with a significantly higher frequency than the other items in the lists. Third, both the lemmatized lists contain a number of inflectional variations with a significantly higher number of variants produced by NETs, that is, 37 vs. 29, base form included. Table 3 shows the differences in this regard.

Table 3: Lemmatized inflectional variants

Variation[1]	*The LET Data*	*The NET Data*
Vi	be, ask, like, do, want, come, look, have, see, say (**10**)	be, say, have, see, do, think, go, want, get, know (**10**)
Vo	are, am, <u>have got</u> (**3**)	are, am, <u>have got</u> (**3**)
Vs.	is, asks, likes, does, wants, comes, looks, has, says (**9**)	is, says, has, thinks, goes, wants, gets, knows (**8**)
Ving	asking, doing (**2**)	saying, doing, going, getting (**4**)
Ved	were, asked, came, said (**4**)	was, were, said, had, saw, did, thought, went, wanted, got (**10**)
Ven	been (**1**)	been, gone (**2**)

[1] Following the labeling system by Collins & Collo (2000), Vi means base form of verb, Vo general 'other' present form of verb, Vs. third person singular, Ving present participial, Ved past tense, Ven past participle (p.XIV).

Table 3 shows that out of the twenty-nine inflectional variations, the *LET* list consists of ten verbs in base form, three of other forms in the present tense, nine of the third-person singular, two present participles, four in the past, and one past participle. Out of the thirty-seven variations, the *NET* list, on the other hand, consists of ten in base form, three other present forms, eight third-person singulars, four present participles, ten in the past tense, and two past participles. All the verbs except 'know' in the *NET* involve past tense usage. Although NETs have used twice as many Ving and Ven forms as LETs, the major difference between the *LET* and *NET* data seems to lie in the way the past tense forms are used.

Table 4: Categorized verb lists

Category	*The LET Data*	*The NET Data*
Material	do; come (**2**)	do; go; get (**3**)
Behavioural	look (**1**)	
Mental	like; want; see (**1**)	see; think; want; know (**4**)
Verbal	ask; say (**2**)	say (**1**)
Relational	be; have (**2**)	be; have (**2**)
Existential[2]	(there) be (**1**)	(there) be (**1**)

Using Halliday's framework, Table 3 shows a categorization of the verbs used by LETs and NETs. Among the top ten verbs in the *LET* data, two are material verbs (type), one behavioural, three mental, two verbal, two relational, and one existential. In the *NET* data, there are three material verbs, four mental verbs, one verbal, two relational, and one existential. No behavioural process verbs are found in the *NET* data. Let us now look more closely at each process type.

Material process

The material process is concerned with doing and happening. The prototypical verbs in this category are those expressing motion or change in physical or abstract phenomena (Martin, Matthiessen, & Painter, 1997). The *LET* data contains two items and the *NET* has three in this category. One word common to both lists is 'do', expressing the meaning of performing an action, an activity or task. Another similarity is concerned with the verb 'come' in the *LET* and 'go' in the *NET* data. Both have a semantic feature of motion. 'Come' indicates a movement towards the speaker; while 'go' a movement away from the speaker. The item 'get' is a complicated case since it could function as a material process, meaning to transfer or receive; or it could be

[2] Existential-type 'be' is separated from relational type 'be' in this calculation.

used as a linking verb, in which case it falls into the category of the relational process. The actual categorization depends on the context in which the verb is used. A concordance analysis in the next section will help make the distinction.

Mental process

In contrast to the material process, the mental process is concerned with people's inner world, or consciousness. The verbs involved are those concerning affection, perception and cognition (Halliday, 1994).

Table 5: The mental process

Sub-category	*The LET Data*	*The NET Data*
Affection	like; want (**2**)	want (**1**)
Perception	see (**1**)	see (**1**)
Cognition		think; know (**2**)

Table 4 shows that the *LET* data contains three and the *NET* data four items in this category. The two lists share one item in the affection sub-category 'want' and one in the perception sub-category 'see'. 'See' is a word with either literal sense, meaning 'noting something in one's eyes', or figurative sense, meaning 'someone is aware of something'. A concordance analysis will reveal the true nature of this word in the next section. There is an important point worth noting regarding this process. While two out of three items in the *LET* data belong to the affection sub-category, two out of four in the *NET* data fall into the cognition sub-category. That *LET* has no item at all in the cognition sub-category marks a difference between the two lists.

Behavioural process

The behavioural process shares features of both the mental and material categories. With a conscious being as its sensor (participant), the process indicates some sense of action or doing (Halliday, 1994:139). 'Look', the only item of this type found in the *LET* data, possesses a semantic feature of using one's eyes or mind. It is a word frequently used in classrooms by teachers for directing or guiding. The fact that the *NET* data does not contain the item in its top-ten list raises some interesting questions. What do NETs do when they need to direct students' attention? Do they use other words instead to deliver the same message? In addition, 'look' could be used as a relational verb, expressing a meaning of appearance/appearing. The concordance analysis in the later section hopes to provide answers to these questions.

Verbal process

The verbal process, as its name suggests, is a process of saying.

Table 6: The verbal process

The LET Data	*The NET Data*
ask: 0.56%; (4.6 per 1000 words)	
say: 0.42%; (3.4 per 1000 words)	say: 0.83%; (6.6 per 1000 words)

The *LET* data contains two items in the verbal category and the *NET* data has only one. Both share the item 'say', a word which could mean, literally, 'someone's physically uttering', 'reporting', or figuratively, expressing a sense of 'indication'. In terms of frequency, while 'say' comes second in the *NET* data, it is at the bottom position in the *LET* data with NETs using it almost twice as much as LETs (6.6 per 1000 words vs. 3.4). 'Ask', the second item in the *LET* data, expresses the meaning of 'speaking something in a question form', a basic action frequently performed in the context of classroom teaching. Unlike 'say', 'ask' normally takes an animated being as its participant, and does not normally appear in figurative speech. Detailed concordance analysis in the next section will reveal in which sense these two words are actually used by the teachers.

Relational and existential processes

The relational process indicates attributes of a person or object (attributive process); and/or its identifying features (identifying process). It also represents a sense of possession realized proto-typically by the word 'have'. The existential process represents existence of an object, phenomenon or person (Halliday, 1994:119). Both relational (attributive and identifying) and existential processes involve primarily use of the copular 'be'. Table 7 provides information on these two process types.

Table 7: The relational and existential processes

Sub-category	*The LET Data* (normed frequency per 1000 words)	*The NET Data*
Relational	be (25.8)	be (20.5)
	have (3.8)	have (5.7)
Existential	be (0.6)	be (0.9)

The *LET* and *NET* data share the same items in the relational and existential categories. Identifying and attributive 'be' holds the top position in both the

lists. Existential type 'be', on the other hand, is small in number in comparison to its relational counterpart. The *LET* and *NET* data both contain 'have' in the top-ten, but it comes third in the *NET* and eighth in the *LET*. Detailed information regarding its use will be dealt with in a concordance analysis.

Concordance Analysis

Six items 'have', 'get', 'say', 'look', 'come' and 'go' will be analyzed here, in order to supplement the information gathered from the wordlist analysis and to clarify the potential ambiguity in the categorization of the lexical verbs. The analysis was carried out in two stages. First, the top-ten verbs in terms of literal/non-literal or figurative/symbolic meanings were classified. The classification between the types is important since a choice of non-literal/figurative meaning over literal meaning could lead to a change of process type. Information regarding the way(s) a particular verb is used thus helps to derive a more accurate categorization of verb (process) types. Second, the salient patterns observed were identified and reported in order to achieve a better understand of the meanings constructed in the class by the teachers.

Have

The literal meaning of 'have' as a lexical item is 'someone owns', 'possesses', or 'holds something'. The object possessed could refer to something concrete or abstract. Table 8 summarizes how 'have' is used by LETs and NETs.

Table 8: Concordance analysis of 'have' in the *LET* and *NET* data

Usage	*LET*	*NET*
May I have… (concrete noun)	24.1 %	
Have + concrete noun	67.6 %	56.9 %
Have + abstract noun	8.3 %	43.1 %

Out of the 145 entries in the *LET* data, three basic structures are identified. They are: 'may I have…' (a sentence frequently found in Hong Kong primary English textbooks), 'have plus a concrete noun', and 'have plus an abstract noun'. Taking into consideration that concrete nouns are normally found in the context of the 'May I have…' structure, the total number of cases of 'have plus concrete' in the *LET* data amounts to more than 90% of the total entries. The situation is different in the *NET* data. There is no 'may I have…'

structure in the list. Although the raw score for 'Have plus concrete' is still higher in number, the percentage is much more balanced between concrete and abstract in the *NET* list (56.9 % vs. 43.1%) than in the *LET* list (91.7% vs. 8.3%). NETs obviously use many more abstract nouns with 'have' in their classrooms.

See

The concordance analysis reveals some similarities and differences in the use of 'see' in the *LET* and *NET* data. Three common patterns are identified in both the lists. They are 'see' in the literal sense, meaning 'noticing something with eyes', 'see' in figurative speech', meaning 'realizing or understanding meaning', and 'see you later/tomorrow' as a phrase. Table 9 summarizes the findings.

Table 9: Concordance analysis of 'see' in the *LET* and *NET* data

Usage	*The LET Data*	*The NET Data*
see (literal)	91.3 %	69.2 %
see (figurative)	8.0 %	23.1 %
see you later (good bye)	0.87 %	7.7 %

Table 8 indicates that more than 90% of the 'see' entries in the *LET* data are used to express literal meaning, while the figure is 22% lower in the *NET* data. The difference in figurative use is more salient when comparing the *LET* and the *NET* data (8% vs. 23.1%), and literal and figurative use within the *LET* data (91.3% vs. 8%). The high percentage of literal meaning indicates that LETs typically use 'see' in a physical sense, i.e. noticing something by using eyes; NETs, on the other hand, also use the word figuratively, approximately 30% in total if we combine 'see you later' together with other figurative usages. From this perspective, 'see' is no longer simply a word in the perception sub-category; it becomes a member of the cognitive sub-category, indicating something in relation to 'understand' and 'know'.

Get

The item 'get' is only found in the *NET* top-ten list. As mentioned above, 'get' could be used as a material verb, meaning, obtaining, receiving; or as a relational process, meaning changing, causing, 'a sense of inceptive' (Halliday, 1994:120). The concordance analysis shows that out of a total of 64 entries in the *NET* data, 21.9% or approximately 1/5 is used as relational type of verbs such as 'get killed', 'getting closer' etc. Once again, an item in

the *NET* data is transformed from one process into another in the real language context.

Say

The concordance analysis shows five patterns regarding the use of 'say' in the *LET* and *NET* data, which cover both the literal meaning as well as its figurative meaning. These patterns include: 'say something', 'say' followed by reported speech, 'say…' as a phrase of elicitation, 'say' in question form, and 'say' with symbolic meaning. Table 10 summarizes the patterns identified in the *LET* and *NET* data.

Table 10: Concordance analysis of 'say' in the *LET* and *NET* data

Usage	*The LET Data*	*The NET Data*
say (something)	36.9.%	69.7 %
say (report)	38.5 %	15.2 %
say… (elicitation)	10.8 %	1.7 %
say? (question)	10.8 %	6.7 %
say (signal)	3.1 %	6.7 %

As can be seen from Table 10, there are some salient differences between the *LET* and *NET* data. First, LETs use twice as many 'say' in reporting mode (38.5% vs.. 15.2%). A closer look at the concordance reveals that the reported words in the *LET* data are mostly direct quotations, telling students verbatim what to say in a sentence, e.g. 'Then you will say I can see' or 'So, when I say um, Sammy, may I have an apple please'. Second, LETs sometimes tend to use an incomplete structure 'then, you can say…' with a pause after it to elicit responses from students in classroom interaction; but NETs, on the other hand, do not seem to do that (10.8% in the *NET* vs. 1.7% in the *LET* data). Third, although small in number, there are twice as many cases in the *NET* data where 'say' is used in a figurative sense (3.1% in the *LET* vs. 6.7% in the *NET*). Except for one case, all the *LET*'s entries have an animated being as participant (or sayer); the *NET* data contains examples of symbolic use of verbs such as 'it (the rule) says…', 'it (the homework task) says…', etc.

Come and *Go*

'Come' is in the top ten-verb list of the *LET* data whereas 'go' is in the *NET* list. They are presented together in the same table because they both share a semantic feature of movement or of change of position. Also, as active words in English lexis, they can combine with other words to express various meanings far away from their basic sense of movement. The concordance

analysis reveals several patterns of how these two words function in the classroom. Table 11 summarizes the details.

Table 11: Concordance analysis of 'come' in the *LET* data and 'go' in *NET* data

Usage (come)	*The LET Data*	Usage (go)	*The NET Data*
come from	41.6 % (literal)	go (to a place)	63.1 % (literal)
come out/up	32.9 % (literal)	going (v-ing)	7.1 % (literal)
come/comes etc.	22.4 % (literal)	go (phrasal)	19.0 % (non-literal)
come on	3.1 % (non-literal)	go (figurative)	8.3 % (non-literal)

Out of a total of 161 raw entries of 'come', 22.4% are used as an intransitive verb (e.g. come or comes). The verb phrase 'come from' and 'come out/up' makes up 41.6% and 32.9% of the total cases respectively. These three categories, about 96% in combination, represent the literal sense of the item 'come' to indicate a sense of physical movement from one place to another (e.g. 'some apples come from New Zealand', 'group leader please come out', and 'can you come up here'?). The only example of non-literal use is 'come on'. With 3.1% in total, these are the only examples in the *LET* data, getting away from the core meaning of movement, indicating something in a non-literal way.

The word 'go' in the *NET* data is a rather different case. Seventy per cent of instances of 'go', including 'go to a place' and 'going', are used in the literal sense, meaning moving to another place. The rest is in figurative speech such as 'lets see how we go' in doing an exercise, 'add a letter, means to go like this'. A number of phrasal verbs such as 'go through the alphabet', 'go ahead', 'go over the test paper' are found in the *NET* data, all of which have acquired a new sense rather than that of movement because of the collocation with other words. This suggests that although both LETs and NETs use phrasal verbs, LETs tend to use the phrases as individual lexical items to express the core meaning. NETs, in contrast, tend to formulate phrasal verbs to express a wider spectrum of meanings. The item in these cases is transformed and becomes part of a new process.

Look

The item 'look' only appears in the *LET* list. The concordance analysis indicates no cases of 'look' as a linking verb by the LETs. A total of 145 entries are exclusively lexical, expressing literal meaning. The three basic patterns identified in Table 12, i.e. 'look here/look (at) here', 'look at me' and

'look at' followed by an object such as picture or blackboard display such a tendency.

Table 12: Concordance analysis of 'look' in the *LET* data

Usage	*The LET Data*
Look here/look at here	16.6 %
Look at me	14.5 %
Look at (concrete object)	68.9 %

One item 'take a look' identified in a concordance list is worth mentioning. As a noun instead of a lexical verb, this 'look' is not part of the analysis. However, a cross-check reveals that there are 30 entries of 'have a look' in the *NET* data, which accounts for almost 20% of the total instances of 'have' in the category. This indicates, instead of using a verb to direct students, NETs sometimes employ a verb phrase, in this case 'have a look', to convey the meaning. The phrase with 'have' as its head no longer functions as a relational type, expressing ownership or possessiveness, but is transformed into a behavioural process. Also the phrase 'have a look' indicates a sense of examining, considering, or judging, which involves much higher cognitive demands than that of 'look at something', leaving more room for students to respond and act instead of demanding primarily physical attention.

Discussion

The discussion focuses on two questions raised above: what kinds of meanings are constructed, and how are the meanings constructed and conveyed in the classrooms?. Regarding the first question, an analysis of the top-ten lexical verbs indicates that given the socio-cultural and linguistic differences in the teachers' background, teacher talk by LETs and NETs share certain similarities. The teachers use language in doing (material process), feeling and perceiving (mental), saying (verbal process) and explaining[3] (relational/existential process). These process-type verbs enable the teachers to manage classrooms (e.g. come, go, do), engage students in interaction (e.g. ask, say), teach content (e.g. be, have) etc. Through the use of these verbs, the teachers have involved students in a range of experiences, physical, mental, and cognitive etc.

It is worth noting that although the *LET* and *NET* data share 60% of the items in their lists, the two groups use the lexical items in different ways. Let

[3] Explaining via relational and existential processes will be dealt with in another paper

us take how meaning is constructed as an example. Although both LETs and NETs involved students in feeling (e.g. 'want') and perceiving (e.g. 'see'), NETs have added one dimension of meaning in classroom instruction, that is, 'to know', to 'think' and 'to see' (figurative sense). As high order cognitive items, the two verbs might entail analyzing, evaluating and synthesizing on the part of students. Although different cognitive skills play different roles in the process of a learner's mental development at different stages, confinement to lower order processes would most likely deprive learners of the opportunity for high order thinking skills. The means of how cognitive meaning is expressed in teacher talk is, therefore, worthy of further exploration.

Regarding the second question on how meanings are constructed and conveyed, the analysis reveals that the most frequently expressed meanings by LETs and NETs are realized in simple lexical words. This is understandable as the audience of the teacher talk is primary pupils and their language input is therefore expected to be simple. This simplicity might also be related to the nature of the teacher talk. Although a planned discourse, teacher talk is basically spoken language rather than written language. Most frequently used items in teacher talk are therefore expected to be simple in lexical use.

The analysis also reveals that LETs tend to use an item in its basic sense, making a clear boundary between process types. Even when an item is combined with words in a phrasal verb, literal meaning remains the core. NETs, on the other hand, display a full-range of uses. There are more inflectional variations of an item such as tense and aspect. Also it is common for NETs to use a word in different senses and in figurative speech, thus transforming one process to another. Use of a wide range of morphological items and senses might benefit students because the language input in the classroom might be richer given the same amount of time and the word frequency in a lesson.

A borderline case between the 'what' and 'how' question concerns the issue of the teacher's role in the classroom. The frequent choice of structures by LETs such as 'come here/out', 'look at me' and 'say plus direct quotation' indicates that the teacher is the centre of the instruction, where all the orders and commands come from. In addition, the explicit nature of those structures does not seem to have left much room (both linguistically and cognitively) for pupils to response/react except for following the directions closely. Although simple and straightforward instructions might be suitable for lower grades, pupils' experiences in the classroom could be enriched if they are exposed to more opportunities to think and act beyond simple physical context. The

intensive use of those structures and less flexible application of verb forms in relation to process types and figurative meanings highlights the differences between LETs and NETs in this regard.

Conclusion

Using Halliday's functional grammar, this study has analyzed corpus data with a specific concern for what and how meanings are constructed and conveyed in local and native speaker teachers' classrooms. This study is useful in four aspects.

First, it has provided an opportunity for the researcher to conduct a corpus study using an established linguistic theory. The study indicates that corpus data matches with the functional system very well because the lexical verb lists generated from the corpus serve as an index for the categorization of process types, on the basis of which meanings are constructed and conveyed. The study is hence useful as a trial of a research approach and larger scale studies could possibly consolidate the findings of this study.

Second, the study is useful in providing a better understanding of teacher talk in Hong Kong primary English classrooms. Although small in scale, the study has revealed some patterns or tendencies regarding the pedagogical functions of classroom instruction delivered via teacher talk, as well as the role of the teachers in the classrooms. This study has confirmed some of the researcher's previous observations, and it has also provided more concrete information on teacher talk, which is beyond intuition.

Third, the findings might be useful for development of teacher education courses. If similar tendencies could be found in a larger scale study based on a similar corpus, the most frequently used lexical verbs identified in this study (e.g. the top-ten lexical verbs) could be taken as a starting point for a threshold level English module for primary language teachers. Such a course could include both the base forms of these words as well as the inflectional variations and combinations-collocations beyond the proto-typical meanings of the forms. An analysis of word frequency and concordance information seems to be useful in enabling educators and students to see how teachers might exercise their role via the use of lexical verbs in the classroom.

Fourth, the study is useful for understanding the linguistic behaviour of LETs and NETs in the classroom. While sharing some similarities, LETs and NETs differ both in what meanings they construct and how they construct and

convey those meanings. This has certainly had some impact on the learning experiences pupils have in the classroom.

The findings of this study have also raised further questions regarding teacher talk. For example, is the difference identified between LETs and NETs due to a problem of language proficiency? Or is it due to a choice of teaching approach/style on the part of the teachers? If this is a deliberate choice, what are the main factors behind the decision? To answer these questions, further studies are needed in order to obtain a better understanding of the complex issue of teacher talk in the Hong Kong context.

References

Bailey, L.G. (1975). An Observational Method in the Foreign Language Classroom: a closer look at interaction analysis. *Foreign Language Annals*, 3(4):335-344.

Cazden, C. (2001). *Classroom Discourse: the Language of Teaching and Learning*. Portsmouth, NH: Heinemann.

Chaudron, C. (1988). *Second Language Classrooms: Research on Teaching and Learning*. Cambridge: Cambridge University Press.

Crystal, D. (1994). *The Cambridge Encyclopaedia of English Language*. Cambridge: Cambridge University Press.

Ellis, R. (1984). *Classroom Second Language Development*. Oxford: Pergamon.

Ellis, R. (1994). *The Study of Second Language Acquistion*. Oxford: Oxford University Press.

Granger, S. (ed.) (1998). *Learner English on Computer*. London: Longman.

Halliday, M.A.K. (1994). *An Introduction to Functional Grammar*. London: Arnold. (2nd ed.)

Flanders, N.A. (1960). *Interaction Analysis in the Classroom: a Manual for Observers*. Ann Arbor: University of Michigan Press.

Hung, T. (2002). The use of language corpora in the teaching of English. *Hong Kong Journal of Applied Linguistics*, 7(1):34-48.

Iedema, R. (1996). Save the talk for after the listening: the realisation of regulative discourse in teacher talk. *Language and Education*, 10(2-3):82-102.

Johns, T. and King, P. (eds.) (1991). Classroom Concordancing. *English Language Research Journal*, 4. Birmingham University.

Johnson, K.E. (1998). *Understanding Communication in Second Language Classrooms*. Cambridge: Cambridge University Press.

Larsen-Freman, D. and Long, M. (1991). *An Introduction to Second Language Acquisition Research*. London: Longman.

Leech, G. (1997). Teaching and language corpora: a convergence. In Wichmann et al. (eds.) *Teaching and Language Corpura* (pp.1-23). London: Longman.

Lynch, T. (1997). *Communication in the Language Classroom*. Oxford: Oxford University Press.

Nunan, D. (1989). *Understanding Language Classrooms*. New York: Prentice Hall.

Sinclair, J.M. (1991). *Corpus Concordance Collocation*. Oxford: Oxford University Press.

Sinclair, J.M. and Coulthard, R.M. (1975). *Towards an Analysis of Discourse: the English used by teachers and pupils*. London: Oxford University Press.

Sinclair, J.M. and Brazil, D. (1982). *Teacher Talk*. Oxford: Oxford University Press.

Tsui, A. B.M. (1995). *Introducing Classroom Interaction*. London: Penguin.

Wichmann, et al. (eds.) (1997). *Teaching and Language Corpura*. London: Longman.

Young, R. and Nguyen, H. (2002). Modes of meaning in high school science. *Applied linguistics*, 23(3):348-372.

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