

Discourse Processes and Products: Land Surveyors in Hong Kong

Abstract

This study reported in this paper aims to provide a description of professional communication pertaining to land surveying project management in Hong Kong, achieved through a comprehensive analysis of both workplace discourse processes and products. The study situated in Hong Kong represented collaborative efforts between English and Land Surveying and Geo-Informatics departments in a university and a civil engineering consultancy firm. By means of survey research, textual analysis and ethnography, the study has collected rich data which enable descriptions of the nature and patterns of professional communication, and the communication profiles of novice and expert professionals engaged in project management in land surveying. In addition, examples of workplace discursive events are discussed in terms of intertextuality. All the findings of the study make useful contribution to the description of professional communication expertise in the field of land surveying project management from the perspectives of both professionals and academia, and have important implications for the education of future members of the profession.

Keywords: discourse processes; discourse products; land surveyors in Hong Kong; professional communication; intertextuality

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1. Introduction

The multidisciplinary and multi-institutional study reported in this paper was conceived and designed with a view to bridging the divide between professional communication research and professional communication practices. It sought to embody best practices by taking full advantage of the resources and synergy across two academic departments and a civil engineering consultancy firm in Hong Kong. The departments are Department of English (ENGL) and Department of Land Surveying and Geo-Informatics (LSGI) in the Hong Kong Polytechnic University.

The professionals whose communicative events and discourses were being examined are land surveyors in one of the largest civil engineering consultancy firms in Hong Kong (henceforth the Consultancy Firm). In Hong Kong, surveying is listed under the two Key Industries of Trade and Logistics and Professional Services, the other two being Financial Services and Tourism (Hong Kong Trade Development Council, 2007). On their website, the Hong Kong Institute of Surveyors defines 'land surveying' as generally "a combined art of position fixing, mapping, land management and information technology", and defines 'land surveyors' as involving themselves "in all sorts of civil engineering works and land developments such as building houses, roads, bridges, canals, viaducts, defining property boundaries, preparing plans from various surveys and managing properties". An important component of work for land surveyors in civil engineering consultancy firms is project management, which can involve "proposal preparation, project scheduling, client management, staff development, preparation of survey services including AutoCAD LDD experience, resolution of Boundary disputes and Quality Control of Field and Office" (Control Point Associates, Inc., U.S.).

Recent business and professional communication research has witnessed an increasing interest in the situated nature of discursive practices (e.g. Sarangi & Roberts, 1999; Candlin, 2002; Pan *et al.*, 2002; Cheng, 2004; Bargiela-Chiappini, 2006, Bargiela-Chiappini & Gotti, 2005; Warren, 2004; Cheng, 2006), and alliances between professionals and discourse and communication researchers in a range of disciplines and contexts. An example is Vijay Bhatia and a team of co-researchers in law (arbitration and litigation) from more than fifteen countries working on the professional legal language (Bhatia, 2005; Bhatia, *et al.*, 2004). Other examples include professional and organizational communication in the fields of healthcare, law and management (for example, Candlin, 2001; Sarangi, 2002; Sarangi & Candlin, 2003; Candlin & Candlin, 2003; Bhatia, *et al.*, 2003a; Bhatia, *et al.*, 2003b; Bhatia

and Candlin, 2003). The present study, one of the first collaborative professional communication studies with a focus on project management in land surveying, investigates the discursive practices of land surveyors, interacting interlingually for strategic communicative purposes, namely for managing and supervising civil engineering construction projects that involves communicating with different parties, including the government, engineers, Contractors and Sub-contractors. Through analysing the communication flow, as well as a selection of texts collected from different participants, in the Land Surveying (LS) Department of the Consultancy Firm, this study aims to provide a description of the discursive competence of land surveyors in project management, from the perspectives of land surveying practitioners, land surveying academics, and discourse and communication researchers.

2. Literature review

2.1 Studying discourses as processes and products

Discourse analysis offers “a broad, multidisciplinary, multicultural and socially relevant approach to human language, cognition, communication and interaction” (van Dijk, 1997, p. 32). The discipline of discourse studies emphasises that discursive social interaction can reveal language use and thought, and that real-life, naturally-occurring discourse as language use, communication and interaction in social context can provide insights about the manifestations, enactments and reproduction of such phenomena as group relations, organizations, institutions, processes, routines and structures (ibid.: 32). As such, discourse, intertextual relations between discourses, and discourse complexes, are studied as constitutive parts of their local, global, socio-cultural contexts. In turn, the contexts can be studied as possible consequences of discourse. Context structures, as described by van Dijk (1997, p. 29), are “settings, participants and their communicative and social roles, goals, relevant social knowledge, norms and values, institutional or organizational structures”.

Indeed, the interdependence of text as process and text as product has long been emphasised (e.g. Halliday & Hasan, 1989; Dixon & Bortolussi, 2001; Geluykens, 2003); and as such, a text is both an output, an artifact that can be studied (i.e. product), “having a certain construction that can be represented in systematic terms” (Halliday & Hasan, 1989, p. 10), and “an instance of social meaning in a particular context of situation” (i.e. process) (ibid.: p. 11). In business and professional communication, the nature of professional discourse as product, i.e. text and talk (van Dijk, 1997), is very elusive. It is often difficult for the researcher to access

professional discourse, such as meetings, interviews, office talk, e-mail messages, business letters, and contracts, due to issues of confidentiality or simply reluctance on the part of professionals or their organisations to allow in ‘outsiders’ to scrutinize their activities. The nature of professional discourse as process is even more elusive, as this requires even greater access to the professional setting in which the discourse occurs. The barriers are much more difficult for the researcher to penetrate, resulting in real dearth of research based on naturally-occurring professional discourses (St John, 1996; Louhiala-Salminen, 2002; Sarangi, 2002; McCarthy and Handford, 2004). This is generally true and holds equally true for the linguistically complex and communicatively demanding world of the Hong Kong Chinese professionals with managerial and administrative backgrounds, who operate through the media of English and Chinese. In fact, grappling with “the use of more than one language in the same place at the same time” (Thomason, 2001, p.1) has been a challenge that many multilingual professional communicators are facing.

Both discourse as process and discourse as product are connected with the notion of ‘intertextuality’ (e.g., Kristeva, 1980; Devitt, 1991; Fairclough, 1992), which refers to the intertwining of textual connections among texts within the discourse flow, whereby parts of a specific discourse event become parts of other discourse events, making “the utilisation of one text dependent upon knowledge of one or more previously encountered texts” (de Beaugrande and Dressler, 1981: 10). Intertextuality covers “relations with other texts, particularly ones from the same or a similar ‘text type’” (van Dijk, 1997, p. 53). It is used to refer to allusions to other texts. Devitt’s (1991) three-dimensional concept of intertextuality (generic, referential and functional) is used by Flowerdew and Wan (2006) to analyse the role and interaction of tax computation letters collected in Hong Kong. Generic intertextuality occurs when a text draws upon previous texts written in response to similar situations, referential intertextuality occurs when a text makes reference to another text, and functional intertextuality occurs when a particular text is regarded as being part of a larger macrotext (Devitt, 1991). Flowerdew and Wan (2006) find all three types of intertextuality in their tax computation letters.

2.2 *Discursive competence*

‘Discursive competence’ is defined as “the ability to understand and produce discourse in concrete situations”, comprising “the joint activation of three knowledge dimensions: linguistic, textual and situational” (Capucho & Oliveira, 2005). It, together with disciplinary knowledge and professional practice, are components of ‘professional expertise’ (Bhatia, 2004, p. 146). Discursive competence can be

influenced by local structures of contexts such as a setting (time, location, circumstance), participants and their various communicative and social roles (speaker, chairperson, friend, etc.), intentions, goals or purposes, and so on” and global structures of contexts such as organizational or institutional or socio-cultural contexts (van Dijk, 1997, p. 19). Discursive competence in well-defined professional contexts can operate at the levels of textual competence, generic competence and social competence (Bhatia, 2004, p. 144). Textual competence is “textual-internal or language-related” (ibid: 144), referring to an ability to both “master the linguistic code” and “use textual, contextual and pragmatic knowledge to construct and interpret contextually appropriate texts” (ibid., p. 141). Both generic competence and social competence are textual-external. Generic competence is “the ability to respond to recurrent and novel rhetorical situations by constructing, interpreting, using and often exploiting generic conventions embedded in specific disciplinary cultures and practices to achieve professional ends”, and social competence “incorporates an ability to use language more widely to participate effectively in a wide variety of social and institutional contexts to give expression to one’s social identity, in the context of constraining social structures and social processes” (ibid., p. 144).

2.3 *Intercultural business and professional communication*

Studies of intercultural communication and mono- and multilingual workplace discourses use a variety of research methods, such as observations, surveys, and textual analysis (e.g., Gumperz, Jupp & Roberts, 1979; Tannen, 1984; Pan *et al.*, 2002). As part of the 'Discourse for Business Management' project (Connor & Schumacher 1998, Gunnarsson, 1998), Johansson (1997) shadowed a Swedish manager during two days. She took field notes, made audio-recordings, collected all texts and conducted follow-up interviews. As part of the same project, Louhiala-Salminen (2002) shadowed a Finnish manager for one day. However, she was not able to take complete field notes and collect all of the discourses. Nickerson (1998) discusses the important role of corporate culture in the level of English writing skills within British subsidiaries in the Netherlands, and shows the impact of corporate culture on the amount and type of written English required. Gunnarsson (2000, p. 5) explores “the complex and multi-dimensional relationship between organization and discourse, using interview data and written documents within banks in Sweden, Germany and Britain”. Gunnarsson’s study (2004, 2005) involves structural engineering companies in Sweden, Germany and Great Britain. Recent studies on e-mail in business communication have been reported in Kankaanranta (2005a, 2005b). Holmes and her colleagues in New Zealand use field notes and recordings in their multilingual workplace communication studies (e.g. Holmes, 2005). A developing

research area is multimodality with respect to business and professional communication; for instance, Karlsson's study (2005) focuses on multimodal texts in a constructing company setting. Many more research studies on workplace discourses have been reported in books devoted specifically to intercultural workplace communication, for instance, Bargiela-Chiappini, & Nickerson (1999), Connor, & Upton (2004), Bargiela-Chiappini, & Gotti (2005), Bargiela-Chiappini (2006), Palmer-Silveira, Ruiz-Garrido, & Fortanet-Gómez (2006), among others.

The proponents of a literacy approach to discourse studies argue that the world is textually mediated (Spilka, 1993; Clark and Ivanic, 1997; Gunnarsson, 1997; Barton and Hamilton, 1998). In the kind of professional setting (i.e. land surveying project management) examined in this study, an important characteristic of professional literacy is the ways in which spoken and written discourses overlap and intermingle with one another. With the return of sovereignty to People's Republic of China (PRC) in 1997, biliteracy and trilingualism have been gaining importance not only in schools and universities, but also in workplaces, to meet the socio-political and economic developments in Hong Kong.

In intercultural communication in business and professional settings in Hong Kong, the inter-relationships between the communicative purposes, the local, institutional and socio-cultural contexts, the choice of channel and mode of communication, and the choice of language medium (code-switching in particular) have been under-investigated despite some developments (e.g. Li Wei *et al.*, 2001; Lee Wong, 2002; Yeung, 2003; Cheng, 2004). Cheng (2004) examined the structural moves, lexico-grammar, discourse intonation and politeness in check-out service encounters in a five-star hotel in Hong Kong and discusses the impact on the findings on such stakeholders as the hotel management, hotel staff, ESP providers, communication and discourse researchers. Another study (Chew, 2005), interviewing 16 new bank employees in four banks in Hong Kong and using questionnaires, has found that Cantonese is used in spoken discourse and English is used in written discourse, and points out a need for larger numbers of bank employees who are fluent in both languages so as to achieve maximum productivity. Flowerdew and Wan (2006) conducted a genre analysis of tax computation letters. They observed and questioned a group of tax accountants and found that e-mail is not considered appropriate for conveying tax computation letters and that intertextuality is prevalent in the letters. The present study, employing research methods of survey, textual analysis and ethnography, investigates workplace communication and the discursive practices of land surveyors in Hong Kong.

3. Background information about the research site

The research took place in a construction site office of the Consultancy Firm. The construction site is identified as “Road XX and Associated Roadworks” in the New Territories of Hong Kong. The site office, which had been set up for more than a year, provided consultancy to a main Contractor, and its Sub-contractors, employed by the Highways Department of the Hong Kong Government SAR to work on a highway project. The site office had a total number of 83 staff members in five departments: Land Surveying, Works and Environment, Contractual and Mainline, Quantity Surveying, and Administration. The research site was the Land Surveying (LS) Department, with 19 staff members (Table 1).

Table 1

Staff structure of Land Surveying (LS) Department of Consultant Firm

Staff structure	Number
Resident Land Surveyor (RLS), Head	1
Senior Surveying Officer (SSO)	3
Surveying Officer (SO)	3
Senior Technical Officer (STO)	2
Technical Officer (TO)	2
Field Assistants	8

4. Research questions and methodology

4.1 *Research questions*

In professional communication, the borderline between spoken and written modes of communication, as well as the complexities regarding the choice of communication channel, be they telephone, video-conference, face-to-face, or computer-mediated, are usually difficult to draw in practice, as the flow of discourse inevitably mixes one with the other when the professionals go about their work, interacting with colleagues both within and outside of the organization. The present study analyses discourses both as processes observed and as products collected during the six-day data collection period in the Land Surveying (LS) Department of the Consultancy Firm. Specifically, the study analyses the channel and mode chosen to communicate and the impact these have on the way communication is encoded, carried out, transmitted, received, decoded and acted upon. It also examines the choice of language medium by these professionals, namely the patterns of and reasons behind the choice of language medium. The aim of the study is therefore three-fold:

1. to provide an initial description of the discursive competence through examining discourse processes and discourse products pertaining to land surveyors in project management;
2. to determine the professional communication profiles of novice and expert professionals engaged in project management in land surveying; and
3. to explore ESP implications for the training of future members of the land surveying profession.

4.2 Data collection

When researchers collect discourse data in professional contexts, they should study not only “how language mediates professional activities” but also “what constitutes professional knowledge and practice beyond performance” (Sarangi, 2002, p. 99). He raises three issues for researchers to consider when collecting and analysing professional discourse. First, “accessibility” refers to the on-going problem for researchers to gain access to business and professional data. Second, “salience/problem identification” is the mutual identification of salient issues and problems. Third, “coding/interpretability/ articulation” involves interpreting professional discourse. These issues point to the importance for the researcher, through collaborating with practitioners, to gain insider knowledge to better interpret any data collected (ibid., pp. 100-103).

The research team of this study recognised that the needs, expectations and interpretations that discourse researchers have with regard to the data collected may at times be very different, though not necessarily mutually exclusive, to those of the professionals who give permission for the data to be collected. Before data collection, consent had been obtained from the headquarters of the Consultancy Firm, followed by a meeting, set up with the help of second author, with the Resident Land Surveyor (RLS). The goal of the meeting was to explain the aims, objectives and research methods of the collaborative professional communication project. The research team was informed that audio- and video-recording of any spoken communication in the office would not be possible, and that samples of some written discourses would be given to the research team. The team assured the Consultancy Firm that they could exercise their rights to withhold access to certain data, and to ask to censor or remove any data in the future.

At the commencement of data collection, the research team met with the professionals in the Consultancy Firm to further review and agree the project aims and logistical arrangements. After data collection had been completed, follow-up discussions were held to better enable the research team to interpret the data. The

present study sought to remedy these methodological shortcomings by studying all the staff in the LS Department for six whole days (9-13 February and 18 February 2006). To accomplish this task, training was provided to a research staff member in taking comprehensive field notes without being excessively intrusive. During the data collection period, she shadowed the land surveyors, recording information about the discourse events and collecting any written texts that were relevant to those events. Throughout the day, she made observation notes in a discourse inventory, which includes the following details:

1. Time that the discourse commences and ends.
2. Overlaps with other discourses (e.g. an informal office meeting interspersed with phone calls and e-mails).
3. Participants and nature of relationship between participants (e.g. power differential, social distance, roles and relationships in communicative process)
4. Nature and type of discourse (e.g. internal or external communication, written or spoken, primary and secondary communicative purposes, nature and status of discourse in the overall discourse flow)
5. Language (mode and channel of communication, media, code-switching)

In addition, individual land surveyors in the department logged their daily communicative activities on a 'Professional Discourse Checklist' designed by the research team. So the findings reported in this paper come from multiple sources and employ multiple methods. It was believed that triangulation and corroboration of the data thus collected would provide a much more comprehensive basis for achieving the goals of the study.

5. Findings

5.1 Discourse types and communication media in land surveying project management

The first aim of the study is to describe the nature of the discourse processes and products pertaining to land surveyors in project management, with a view to describing the discursive competence of the land surveying professionals. Data analysis has first of all identified the main kinds of written and spoken discourses that are produced, distributed and consumed among different parties during land surveying project management, as well as the corresponding media of communication (Table 2). The parties involved are the client, i.e. the government Highways Department, the Contractor (and Sub-contractors), the Consultancy Firm, and the Land Surveying Department within the Firm.

Table 2

Main discourse types and medium of communication in Land Surveying Department

Written discourse	Medium of communication
Design Plan	Linguistic text in English, with maps, graphs and diagrams
Tender invitations and proposals	English
Business letters	English
External and internal e-mails	English
Project Works	Linguistic text in English, with maps, graphs and diagrams
Phase Division of Project Works	Linguistic text in English, with maps, graphs and diagrams
Pro-forma: 'Request for Inspection' and 'Request for Information'	English
Contractor Submission Report	English
Spoken discourse	Medium of communication
Formal and informal meetings	<ul style="list-style-type: none"> • Informal meetings are primarily in Cantonese, and are in English with English-speaking land surveyors working for the contractor • Most formal meetings attended by RLS, and sometimes by SSOs, with government and contractors are conducted in English
Phone calls	Cantonese
Site visits and inspections	Cantonese

Table 2 shows that written discourses are much more varied and, without exception, in English. There are two categories of written discourses: specialized and generic. Specialised written discourses include Design Plan, Tender Invitations and Proposals, Project Works, Phase Division of Project Works, Request for Inspection Pro-forma, Request for Information Pro-forma, and Contractor Submission Report. Generic written discourses are business letters, internal and external e-mails, those which can be found in different workplace communication situations. Generic spoken discourses are formal and informal meetings and phone calls, and these are mainly conducted in Cantonese. External meetings are conducted in English only when English-speaking land surveyors working for the Contractor are involved. Specialised spoken discourses are found during visits and inspections of works sites. They are conducted in Cantonese most of the time, and rarely in English only when the site workers are non-Cantonese speaking Asians.

The finding that in business and professional communication in Hong Kong, as in the case of project management in the LS Department, a specific chain of discourse

events usually involves the use of different languages is not at all surprising. An example was provided by one of the SSOs. When the external Contractor phones up the SSO to seek clarification about some project details, the interaction is primarily in Cantonese, with English used for making intertextual reference to related texts and technical terms (a similar discussion on written discourses will be given later in the paper). The phone discussion will result in the SSO making a formal written record of the telephone discourse in English to present to the engineer in another department in the Consultancy Firm. The engineer will then provide the answer and ask the SSO to write a formal reply in English to the Contractor. The findings are similar to those of Evans and Green (2003) who find that in post-1997 Hong Kong, Chinese professionals in the fields of Engineering, Construction/Real Estate and Manufacturing have a greater need to communicate in English for various purposes than their counterparts in Business Services and Community/Social Services. Evans and Green (2003) find that the professionals write and read emails, faxes, memos and letters in English, and they also find that spoken English plays a more limited (though not unimportant) role in the professional workplace in Hong Kong.

5.2 Discourse processes and products in land surveying project management

Table 3 and Table 4 show external and internal communication, as well as the direction of communication within the organizational structure, i.e. upward and downward. It can be seen in Table 3 that external communication primarily involves communicating with the Contractor. At different levels, written discourses take the form of letters between Consultancy Firm and Contractor, Project Works (text, maps, graphs, diagrams) and e-mails between the Resident Land Surveyor and the Contractor, Phase Division of Project Works and e-mails between Senior Surveying Officer and the Contractor, and pro-formas and e-mails between Surveying Officer and the Contractor. According to the professionals, written discourses for external communication are primarily e-mails to the Contractor and Sub-contractors. Frequent communication with the Contractor is primarily by means of two standard pro-formas, namely 'Request for Inspection' and 'Request for Information'. These forms will be analysed later, particularly in terms of intertextuality. With respect to spoken discourses, they are meetings but occur infrequently.

Table 3

Discourse processes and products among parties in external communication

Parties involved in external communication	External discourse products between different parties and Contractor and Sub-contractors
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Client (Highways Department, Hong Kong Government SAR)	Contracts
The Consultancy Firm	Letters
Resident Land Surveyor in LS Department of Consultancy Firm	Meetings, e-mails, Project Works (text, maps, graphs, diagrams)
Senior Surveying Officer in LS Department of Consultancy Firm	Meetings, e-mails, Phase Division of Project Works
Surveying Officer in LS Department of Consultancy Firm	‘Request for Inspection’ Pro-forma, ‘Request for Information’ Pro-forma, Phase Division of Project Works, meetings, e-mails

Table 4 summarises internal discourse processes and products in the Consultancy Firm, particularly within the Land Surveying (LS) Department. With respect to written discourses, internal communication primarily takes the form of reading e-mails regarding work implementation copied in by the engineers, and writing and reading e-mails within and outside of the LS Department. Communication by e-mails is reported to be the most prevalent means of internal communication.

Table 4

Discourse processes and products among parties in internal communication

Parties involved in internal communication	Upward communication	Downward communication
The Consultancy Firm	Meetings (including telephone meetings), e-mails, Project Works (text, maps, graphs, diagrams)	Meetings (including telephone meetings), e-mails, Project Works (text, maps, graphs, diagrams)
Resident Land Surveyor	E-mails, Phase Division of Project Works (text, maps, graphs, diagrams)	Project Works (text, maps, graphs, diagrams), Phase Division of Project Works (text, maps, graphs, diagrams)
Senior Surveying Officer	E-mails, meetings, Phase Division of Project Works (text, maps, graphs, diagrams)	Meetings, e-mails, Phase Division of Project Works (text, maps, graphs, diagrams)
Surveying Officer		‘Request for Inspection Form’, ‘Request for Information Form’, e-mails

5.3 Intertextuality

Figure 1 is a simplified version of the complexity of intertextuality pertaining to both external and internal discourse processes and products of project management in land surveying. One of the first discourses is Project Works drawn up by the

Highways Department of the Hong Kong Government SAR, which sends out invitations for tender, resulting in Tender Proposals offering Contracts and Sub-contracts. After that, there will be meetings between the Highways Department, the Consultancy Firm (which provides consultancy to the Project), and the Contractor and Sub-contractors. The meetings generate such texts as minutes or notes. Further meetings will be required for different phases of the project, and the project implementation requires site inspection and reporting of project progress, which produce various kinds of texts.

Figure 1

Intertextuality in discourse flow of land surveying project management

The ‘Request for Information’¹ Pro-forma (RFI) will be examined to illustrate intertextuality in civil engineering land surveying. A sample of RFI can be found in Figure 2. For ease of discussion, the lines in the text are numbered. When the engineer in the Consultancy Firm receives an RFI from the Contractor (or the Sub-contractors), he or she will pass it to the RLS if the request is relevant to land surveying. The RLS then forwards it to the SSO and SO concerned. The RFI consists of two parts: Query and Response to the Query. The sample in Figure 2 shows that the RFI is enclosed with a data sheet and diagrams, containing data collected from the construction field and the original design by the engineers, for comparison purposes. The discourse is therefore multimodal, whereby the written texts (request and response to it) are substantiated by data and diagrams. The Query section contains 121 words and the Response section 28 words.

Figure 2

‘Request for Information’ Pro-forma (RFI #3)

With respect to generic intertextuality, the RFI is itself a template. Despite the different nature and specifics of individual requests, the party who queries and the party who responds are found to draw on previous RFI texts to produce an RFI in response to similar situations. Similarities are observed not only in the design layout of the RFI Pro-forma, but also in the linguistic features. For instance, there is heavy use of the hedged imperative ‘Please advise’, ‘Please review and advise’, ‘Please be reminded’, ‘Please be informed’; expressions connecting previous and current texts

¹ The main text is reproduced without any attempt to change the wording of it.

“In according (sic.) with’, ‘Referring to’, ‘Further to’; the use of modal verbs ‘should’ and ‘will’. There is also heavy use of passive voice in both Query and Response, for example,

- (1) *it was found that the specified location of exit signage is in conflict with the details of revised sliding door at cross-passage chainage x+xxx of xxxx.* (RFI #1: Query)
- (2) *the cross fall of the footpath should be maintained at 3% unless otherwise stated.* (RFI #2: Query)
- (3) *the existing footpath in question is to be retained.* (RFI #2: Query)
- (4) *Please advice whether transition zone is provided ...* (RFI #2: Query)
- (5) *the sliding door shall be installed behind the VE cladding.* (RFI #1: Response)
- (6) *the Contractor is required to revise the VE cladding* (RFI #1: Response)
- (7) *the whole length of the footpath will be retained as per drawing no. xxxxx/xxxx.* (RFI #2: Response)
- (8) *The 3% cross fall ... should be ignored.* (RFI #2: Response)
- (9) *No transition zone is required.* (RFI #2: Response)
- (10) *However, the small section of reconstructed footpath at the junction of ... should be constructed to match the proposed kerbline and the retained footpath.* (RFI #2: Response)

Another common feature in RFI is the use of lengthy nominal groups. Two examples are:

- (11) *... the Site Sketch No.xx/xxxxxxx issued under Variation Order xxx regarding the revised location of the exit signage and the subsequent Site Sketch No.xx/xxxxxxx issued under Variation Order xxx regarding the revised fire door arrangements* (RFI #1: Query)
- (12) *In accordance with the sectional plan of cross passage at xxx+xxx of xxxx as shown in sketch No. xx/xxxxxxx issued under V.O. No. xxx* (RFI #1: Response)

Table 5 below lists the referential intertextual links (Devitt, 1991) found in the sample RFI. A large number of connections are made to previous texts, text found in the RFI itself, and enclosed diagrams.

Table 5

Analysis of intertextuality in ‘Request for Information’ Pro-forma in Figure 2

Intertextual link with preceding texts	Intertextual link with enclosed texts
your response to our previous RFI No. xxxx (line 5)	U-channel along xxx Retaining Wall (line 2)
our previous RFI No. xxxx (line 5)	the finishing ground level for the front and xxx xx Road – xxx xxx side of xxx Retaining Wall (lines 5-7)
the above information (line 9)	the Contract Drawings No. xxxxx/xxxxx and xxxxx i.e. +6.3mPD (lines 7-8)
your previous response. (lines 13-14)	the proposed slope profile from the end of xxx Retaining Wall at xxx xx Road – xxx xxx side (lines 9-10)
	the proposed U-channel along the toe slope (lines 11-12)
	For your easy reference, sections of the slope is attached (lines 11-12)
	<i>The u-channel along the xxx xx Road side of the xxx retaining wall (line 16)</i>
	<i>the attached Sketch No. xx/xxxxxxx (line 17)</i>

The findings are most interesting and informative. The analysis shows that within the short text, there is a heavy use of referential intertextual links with both previously encountered texts and the relevant multimodal Projects Works sketch that is enclosed with the pro-forma. In the 121-word Query, there are four instances of intertextual links with previously encountered texts, one of which refers to internal text ‘the above information’ (line 9), and six instances of links with the relevant Project Works enclosure. In the 28-word Response, two intertextual links are made with the enclosed sketch, and this implies an intertextual link to the preceding RFI text.

As discussed above, the RFI is part of a chain of discourse processes and products initiated by the Contractor. The RFI itself requires approval and signature of endorsement by the Resident Land Surveyor before it is acted upon by other parties. In this sense, functional intertextuality is evident in RFI.

6. Professional communication profiles of novice and expert land surveyors

The second aim of the study is to determine the professional communication profiles of novice and expert professionals engaged in project management in land surveying. The findings show that individual practitioners in the LS Department of the Consultancy Firm are found to differ in their involvement in discourse processes and products. In the LS Department, all incoming written texts go to the Resident Land Surveyor (RLS), who decides how to circulate them within the Department.

Between the Senior Surveying Officers (SSO) and Surveying Officers (SO), the discourse practice needs and patterns are different.

Among the three SSOs, the distribution of different types of work is 50%-100% office work, 0%-25% field inspection, and 10%-25% field work. Written discourses handled by the SSOs include reading copies of English e-mails sent by engineers in Works and Environment Department and Contractual and Mainline Department of the Hong Kong Government, requesting information about design of roadworks (e.g. design works, design review, etc.), and data or records on road levels, slope, distance, and so on. They also read emails related to personnel matters sent by the Administration Department of the Consultancy Firm. Externally, the SSOs also receive English e-mails and letters from project-related parties, such as the railway company and the Contractor. The communicative purpose of the written discourses with the Contractor, for instance, is mainly to confirm or revise site or roadwork designs. Spoken discourses for the SSOs are primarily face-to-face internal meetings, with infrequent phone calls in Cantonese. Externally, there are occasional meetings with the Contractor when problems arise. During field work, all spoken discourses serve the functions of giving clarification and explanation to engineers regarding land surveying matters, as well as giving instruction and seeking clarification from the Contractor staff and Field Assistants.

As across the three SOs, the distribution of work is 20%-60% office work and 40%-80% field work. The amount of field work depends on the number of requests made by the Contractor, through submitting the 'Request for Inspection Form'. Spoken discourses mainly take the form of face-to-face meetings conducted in Cantonese, which are held when project-related problems arise. The SO will arrange meetings for the engineers and Contractor, and these meetings may be attended by SSOs and even the RLS. The three SOs very rarely speak in English, except for one of them who communicates with the very small number of English-speaking staff working for the Contractor.

7. Conclusion

The present study, grounded in the interactive context of a Land Surveying Department in a consultancy firm in Hong Kong, examines the communicative events and discourse products during the six-day period of the study, and how they fit into the respective discourse flow, both internally and externally, that constitutes professional communication of individual land surveyors in the Consultancy Firm. The study has identified different types of written and spoken discourses

characteristic of the professionals in the land surveying field. With respect to languages, the study has shown that written discourses are primarily in English, and spoken discourses in Cantonese. This study therefore demonstrates that land survey professionals engage in a complex web of profession-related discourses worthy of study. Such a study does not only have implications and applications for the profession, but also sheds light on our understanding of professional communication generally.

The third aim of the study is to explore the implications of the findings for the training of future members of the land surveying profession. The study has shown that land surveyors at all levels of the profession engage in high stakes discourses every single day. The RIF Pro-forma, for instance, one of the staple discourses throughout a land surveying project, can, and not infrequently does, result in legal claims between the parties often over financial matters (i.e. disputes over Variation Orders). The legal status of many of the discourses has implications, especially in terms of intertextuality. For example, multiple parties are copied in; many discourses are referenced (often bar-coded), stamped, and signed by SO, SSO and LS; prior texts, which are often multimodal in nature, are constantly referred to in the discourse flow; and finally, the ongoing revision of the Project Works generates wave after wave of new design sketches and accompanying discourses which are then referred to alongside the original versions.

Novice land surveyors need to acquire a number of profession-specific discourse skills that this study has identified through examining some profession-specific texts. On top of the knowledge of the communicative intent and the associated structure and language of generic and specific discourses, the skills include the ability to refer to and accurately reference prior discourses; the ability to summarise prior discourses and then succinctly revise specific aspects of them; a heightened awareness of all of the parties involved in a particular discourse flow; and a mastery of multimodal texts and communication.

From the researchers' perspective, there exist a few needs. First of all, there is the need to capture all the discourses in the discourse flow in order to fully analyse each one and how they all fit together. The second need is to elicit different parties', or stakeholders', input to fully understand the discourses and their inter-relationships. The third need is to study the ways in which language use evolves within the discourse flow.

Research studies in recent years into professional communication and professional discourses around the world are unique in their goals and nature; their range of theories and approaches that underpin the methodologies adopted; the various linguistic, paralinguistic, pragmatic, and communicative features examined;

the range of disciplinary perspectives taken; and the array of authentic business sites in which these studies are situated. In different admirable ways, those studies have made useful contributions to this field of research through their research results and recommendations. Various interest groups and stakeholders, including governments, business people, business organisations, English for Specific Purposes (ESP) and Languages for Specific Purposes (LSP) specialists, researchers, and learners, stand to benefit from these studies. Many studies, as can well be understood, have identified and studied a feature or phenomenon, be it register, genres, turn-taking, rhetorical style, discoursal structure, lexico-grammar, communication strategies, communicative competencies, politeness, or the description of a variety of professional English, and produced credible and informative results. Nonetheless, many of these studies beg the question: Would the contribution to knowledge and the impact on the business world have been much greater if these studies of business discourse had been broader in scope and much more comprehensive, incorporating as many methodological approaches and examining as many features and phenomena as possible?

This paper has suggested an answer to the question. It has described and illustrated the first stage of one of such studies which has been evolved from systematically designed and developed, mutually-benefiting, and long-term collaborative projects between academics and researchers in the universities and practitioners in the real professional world. Developed from the review of the current state of affairs, supported with the illustrative case study of land surveying project management, the paper has suggested ideas for a collaborative research agenda which will further our understanding of professional communication and have real world applications in the Hong Kong professional context and beyond.

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