Genre analysis of minutes of meetings conducted in English by Thai engineers

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ABSTRACT
Meetings are one of the common activities that play an important role in the field of business. For the community of Thai engineers, meetings become the salient aspects of their work, and therefore the effective writing of minutes of meetings is required. As such a writing is essential in the field, analyzing the corpus of the minutes of meetings would shed a light the patterns of meaning instantiated through those minutes. A corpus of 115 minutes of meetings were collected and analyzed using the genre analysis framework (moves and steps) of Swales (1990), Bhatia (1993), and Thaweewong (2006). Further, the lexico-grammatical features e.g., tenses and voices instantiated through the meetings were examined. Results of the analysis showed that Thai engineers use e-mail as the medium in writing the minutes in two ways: using regular e-mail messages (e-mail form) and using the company form. In terms of moves, there were seven common moves observed in the writing of the minutes: (1) the heading; (2) an opening salutation; (3) establishing a correspondence chain; (4) the content of the meeting; (5) a closing correspondence chain; (6) a closing salutation; and (7) attaching a document. In terms of lexicogrammar, there are some prominent features such as the simple present tense, active voice, noun phrases, proper nouns, abbreviations, and key word lists. The results above can be further utilized by course designers when developing the materials for their course. It is expected that the knowledge of moves and lexico-gramamtical features can help engineering students and novice engineers practice writing the minutes of meetings effectively.

Keywords: Engineers; English for specific purposes; genre analysis; minutes of meetings of engineers

INTRODUCTION
Since the economic crisis of the late 1990s, most Thai business organizations have seen a significant change in terms of the development of new work structures and practices aiming to compete effectively in a rapidly changing, global, business environment. Such a change provides an important space for English, used as a foreign language in Thailand, to become a medium required for professional advancement to help businesses function effectively.

Meetings, conducted in English, are one of the common activities that play an important role in the field of business. They can be conducted in both formal and informal situations; they can take face-to-face, telephone, and video conference forms. Many studies have reported that people that work in different professional contexts conduct meetings as a part of their work (e.g. Evans & Green, 2003;

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Kassim & Ali, 2010; Spence & Liu, 2013; and Warren, 2014). Male et al. (2009), specifically investigated the competencies required for engineers in Australia, one of which being chairing and attending meetings effectively. However, the review of professional textbooks by Wolfe (2006) showed that only few samples of minutes of meeting provided.

Meetings conducted in English cannot be separated from the works of engineers, as well. Engineers are a huge professional group that uses English in their work, where basically they use four English skills (Kassim & Radzuan, 2008; Zaharim et al., 2009; and Male et al., 2009). Kassim and Ali (2010) and Spence and Liu (2013) have reported that meetings are important in the work of engineers and the skill of writing the minutes of meetings is highly required. According to Wolfe (2006), who conducted a study with three experienced engineers working in international companies, writing meeting minutes was very important for engineers since the function of minutes was to fulfill the commitment of the engineers to do their work based on the content of the discussion during the meeting. In addition, some survey research done in Thai context concluded that Thai engineers desire the ability to write business e-mails, write up projects, and write minutes and annual reports in English (Changpueng, 2009; Rajprasit et al., 2014).

With respect to the minutes of meetings, little research has been done in this area. McEachern (1998) examined the minutes of meetings at a non-profit arts organization using what Jeffrey Pfeffer calls "symbolic action" in order to see the ways in which the writer of the minutes used language to affect the attitude of the readers. It was found that the decisions that an individual makes in writing minutes influence the development of the organization's culture. Wolfe (2006), summarized three styles for writing minutes. The first one was transcript style, which is similar to taking notes on the conversations that occurred at the meeting. This style is different from the second one, the action-oriented style, which is used in the workplace setting. That is, it provides brief information focusing on decisions, action items, responsibilities, and deadlines. The third style is called parliamentary style. This style is a norm of governmental and academic settings. However, no one knows if the components of the minutes and writing styles of the minutes of engineers in Thailand are similar to what people in the business world suggest. Renz and Lenz (2018) stated that the format of the minutes of meetings can vary depending on the nature of the meeting, group preferences, and the needs of companies. Therefore, it is worth analyzing the minutes of the meetings of engineers in order to ascertain their writing styles and the components of the minutes in order to be able to support the development of classroom

lessons for English students. A study by Whitney (2019) was undertaken on teaching students how to write the minutes of meetings together with focusing on ethics. The researcher in that study taught undergraduate students in technical and professional writing courses to write the minutes of meetings by studying examples of such minutes and practicing analysing them. The samples of the minutes were from sport clubs, the Centers for Disease Control and Prevention, and a local school board.

In order to create such lessons for engineering students, a genre analysis of minutes is necessary because many studies have reported the success of employing genre analysis results in creating ESP writing lessons (e.g. Changpueng, 2009; Flowerdew, 2000; Handford, 2010; Walker, 2010). According to Swales (1990), genre can be defined as "a class of communicative events, the member of which share some set of communicative purposes" (p.58). In a more restrictive sense, Bhatia (1993) followed Swales, but he put a step forward towards Swales' work. While Swales focused on the discourse community as a whole, Bhatia stated that a communicative activity can be called a genre if the participants acknowledge and understand its purpose and accept its governing convention and constraints as their communicative pattern. This study follows the genre defined by Bhatia, as it is related to professional discourse.

Genre analysis, as a discourse analysis approach, is known as an effective tool that provides insights into how texts are structured. Genre analysis has two typical characteristics: the top-down approach (move analysis) and the bottom-up approach (linguistic features analysis, e.g. grammatical and lexical features) (Pho, 2008). A "move" is a text unit that represents a communicative function, and a "step" is a subunit of a move that, in turn, contributes to the move's communicative function (Kanoksilpatham, 2007).

A literature review of genre analysis in professional discourse have shown that this analysis has been used in many areas such as business e-mails (e.g. Thaweewong, 2006; Abbassian & Tahririan, 2008; Mehrpour & Mehrzad, 2013; Giménez Moreno, 2010), business letters (e.g. Bhatia, 1993; Jalilifar & Beitsayyah, 2011; Santos, 2002), and job application letters (Henry & Roseberry, 2001). However, it can be said that studies on analyzing the minutes of meetings genres in similar contexts and similar professional settings has been scarce. From these studies, the work of Thaweewong (2006) and Abbasian and Tahririan (2008) can be used as a guideline to analyze the minutes of meeting, in terms of steps, and the lexico-grammatical features. Therefore, the present study aims at analyzing the genre of the minutes of meetings written by Thai engineers in order to write lessons for engineering students or anyone who is interested in practicing writing

minutes. The study aims to address the following questions:

1. What are the moves and steps of the minutes of meetings written by Thai engineers?
2. What are the linguistic features that characterize each identified move of the minutes of meetings written by Thai engineers?

METHOD
Data collection
The corpus of this study comprised samples of the minutes of meetings in English written voluntarily by Thai engineers from various companies and types of business. There is a variety of criteria developed by different organizations for the categorization of types of business in Thailand. For this study, the criteria prescribed by the Stock Exchange of Thailand (SET) were employed (Stock Exchange of Thailand, 2016), as the details of the criteria are well-defined and clear. The corpus was collected based on two sampling techniques: purposive sampling and convenience sampling. In order to collect the minute samples, request letters were distributed to prospective companies, which were invited to participate in this study. There were 115 samples of the minutes of meetings collected from various companies and types of business, including agrobusiness and food (7 minutes, 6.08%), consumer products (9 minutes, 7.82%), industrials (56 minutes, 48.6%), resources (21 minutes, 18.2%), technology (20 minutes, 17.3%), and service (2 minutes, 1.73%). The collected sample minutes were screened and approved by the companies' authorized staff. The companies' private and confidential information was strictly kept confidential. The number of 115 minutes was sufficient for this study as it could provide useful insight into the minutes of meetings written by Thai

engineers, as can be seen in previous studies, e.g. (25 letters) Flowerdew and Wan (2006), (60 e-mails) Mehrpour and Mehrzad (2013), and (60 e-mails) Kerkeb (2013).

In addition, the selection of the data was made on two more bases: the meeting minutes' formality and length. Based on a preliminary sample collection by the researchers, it was common for Thai engineers' minutes of meeting to be sent to fellow engineers and other co-workers via emails. These minutes of meetings, as interview results with engineers revealed, can be categorized into formal and informal types based on the topics of the meetings. When the topics include a formal discussion of the engineers' work with clients or venders, the minutes are written in their company's template or form and sent as an e-mail attachment. In contrast, when the topics in a meeting are informal—e.g. a meeting about their routine discussions or responsibilities—the minutes are sent as texts inside e-mails. Regarding the length, most of the minutes (e-mail) consists of approximately 100 words. As for the minutes that were written using the formal form, the length had to be at least 120 words as found in the preliminary study. The minutes was collected from 2016 to 2019 as engineers may not keep the past written data in a long time.

Data analysis procedures
There were two analytical procedures in this study: macro-level and micro-level analyses.

Macro-level analysis: move analysis
The data were analyzed based on the CAR's model framework of Swales (1990), the sales promotion letter framework of Bhatia (1993), and the business e-mail correspondence framework between Thai and German organizations of Thaweewong (2006). Thaweewong's model of move analysiscan be seen in Table 1 below.

Table 1
Thaweewong's (2006) Move Analysis

Move 1: Opening salutation
Move 2: Establishing correspondence chain
Step 1: Referring to the event/previous contact
or   Step 2: Acknowledging the existence of the previous email
Move 3: Introducing purpose
Step 1: Providing information/ responding to the previous mail
and/or Step 2: Introducing the offer
and/ or Step 3: Requesting
and/or Step 4: Enquiring
Move 4: Attaching document
Move 5: Soliciting response
Move 6: Ending positively
Move 7: Closing salutation

In addition, the cut-off frequency of 60% of the occurrence of each move, proposed by Kanoksilapatham (2005, 2007), was employed as the criteria to check the frequency of the move

occurrence in this study. That is, to be recognized as a conventional move (obligatory), a move had to occur in at least 60% of the section in the corpus. In

contrast, it had to be an optional move if the frequency was below 60%.

Micro-level analysis: lexico-grammatical analysis

In order to receive sufficient information to create lessons for teaching students, insights from a lexico-grammatical analysis were required. Bhatia (1993) mentions that lexico-grammatical features consist of the vocabulary and grammatical patterns that establish the moves of genres. In addition, Hyon (2018) adds that recurring words, phrases, parts of speech, tenses, voice, and syntactic construction can be included into lexico-grammatical features. According to Bhatia (1993) and Hyon (2018), it implies that the lexico-grammatical elements characterize each identified move. Therefore, the investigation focused on parts of speech, syntactic forms, tenses, voice, and vocabulary, as the knowledge of these lexico-grammatical aspects is required to help writers write the minutes effectively (Richards, 1990; Nunan, 1998, and Hyland, 2003), as can be demonstrated in various writing rubrics, which include the grammatical feature construct (IELTS, 2020; ETS, 2019). The lexico-grammatical features were analyzed manually (e.g. Pecorari, 2006; Samraj, 2013, and Hyon, 2018). The manual approach was employed for two reasons. It is possible to use this approach to analyze a modest size of data (Samraj, 2013 as cited in Hyon, 2018, p. 52). In addition, the approach allows researchers to observe if engineers use strategies or specific styles; for example, politeness and abbreviations, in writing minutes. Further, this study employed the method of counting the most frequently used lexico-grammatical features for each move in order to analyze these linguistic features, following for example Santos (2002), Flowerdew and Wan (2006), Abbasian and Tahririan (2008), Hayati et al. (2011), Mehrpour and Mehrzad (2013), Jalilifar and Beitsayyah (2011), and Yang (2015). As for the word list, the data were analyzed using the computer software Antconc Software 3.5.8 (Anthony, 2019). Further, telephone interviews with engineers were used in order to clarify some of the questions concerning the content or vocabulary of the minutes. For example, why do engineers use many abbreviations in their writing? What are the criteria for identifying the differences between formal and informal meetings?

Inter-coder reliability of move identification

Regarding the reliability of the move identification, the inter-coder reliability process was undertaken in order to check the level of agreement between the coders (a researcher in this study and a coder) in analyzing each move. A qualified linguist that had 7 years of work experience in genre analysis and also good ability in English was chosen as the coder for this study. The coder was trained in how to analyze the corpus. Then, the researcher and the coder analyzed the texts in order to investigate any coding disagreements. Twenty-five percent of the collected minutes samples (29 samples: 14 e-mails, 15 company forms) were randomly chosen for the inter-rating (Kanoksilapatham, 2005; Tisapramotkul, 2007). In addition, percentage and the Mann-Whitney U test were utilized in order to check the examined results of the coders (Wongrattana, 2009). The results of the inter-coding reliability analysis are explained based on the details of the move analysis results: heading = 100%, opening salutation = 100%, establishing correspondence chain = 93.7%, content of the meeting = 100%, closing the correspondence chain = 83.4%, closing salutation = 100%, and attachment = 100%. In addition, the average inter-coding reliability was 96.7%. The test results revealed that there was no significant difference between coders' analysis results in each move. The results of the analysis showed that there was high overall inter-coder reliability between the two coders.

RESULTS AND DISCUSSION

The generic structure of the minutes of meetings

After analyzing 115 minutes of the meetings, it was found that engineers use e-mail as the medium to send their minutes to the meeting participants. They do this in two ways. The results, firstly, showed that 56 meeting minutes were written using regular e-mail messages (e-mail form) and 59 meeting minutes were written using the company form that was filled out by the minute takers. Further, the results revealed that there are various engineers' minutes of meetings with regard to their target readers; that is, engineers write to engineers (same department), colleagues (different departments), their superiors, project team members, and customers. In addition, there were seven moves of writing the minutes of meetings. The two forms of the minutes of meetings are simultaneously presented in Table 2.

The results of the move analysis, as shown in Table 2, were similar to the results of the business e-mails of Thaweewong (2006), which was used as the framework of this study (see Table 1). In addition, the results agreed with the analysis results of Hiranburana (2017) but with six moves. This might be because the minutes of meetings were also written in e-mail form, using the same pattern of business e-mail writing. Moves 1, 2, 5, 6, and 7 (see Table 2) can be called "framing moves" (Louhaila-Salminen et al., 2005) since these moves represent the layout of business e-mail writing. The rest are moves 3 and 4, which are called "content moves" because they provide the main content or purpose of such e-mail (Louhaila-Salminen et al., 2005). As the analysis results in Table 2 are presented for both writing minutes using regular e-mail messages and using the company form, the following section discusses the move structure in details. Each move will be elaborated in turn.

Table 2

List   of   Moves   and   Steps   in   the   Minutes   Written   by   Engineers

Move 1 Heading (obligatory)
Move 2 Opening salutation (obligatory in e-mail form)
Move 3 Establishing correspondence chain (obligatory in e-mail form)
  *Step1: invitation to read the minutes
   Step 2: thanking for attending the meeting
   Step 3: referring to previous events
Move 4 Content of the meeting (obligatory)
  *Step 1: results of discussion/announcement/progress report/action plan
   Step 2: actors/department name/company name
   Step 3: timeline
   Step 4: status
Move 5 Closing correspondence chain (optional in e-mail form)
  *Step 1: soliciting a response
   Step 2: ending positively
Move 6: Closing salutation (obligatory in e-mail form)
Move 7: Attaching document (optional)
Note: (Moves 1, 2, and 3 are flexible; they can occur interchangeably. Move 7 can occur anywhere.)

Note: * = Any of the following steps are acceptable, and any combination of the following steps is possible.

Move 1 Heading (obligatory)

Move 1 Heading of the minutes aims at providing general information about the meeting. It consists of the *date, place, time, meeting topics /subjects/ agenda/ title, and participants/attendees*. There is no step in this move. Within the present corpus, the occurrence of this move was 105 or 91.3%. This high frequency showed the significance of this move in both the regular e-mail form and in the company form, so it is obligatory. It can be identified as a conventional move since the criterion for the cut-off point was 60% of the occurrence rate. The results revealed that all that general information is presented at the beginning of both e-mails and the form. In addition, it was found that its details are similar to move 1 (establishing a negotiation chain) of Hayati et al. (2011), Qasim et al. (2015), and Santos (2002), which presents the introduction and sets the scene and communication chain. Some examples of move 1 are shown below. Here, MN + number refers to the order of the minutes of the meeting (e.g. MN 25). All of the names of the people, departments, companies, and proper technical terms are pseudonyms.

 (MN 42: e-mail)
To: *Duangta Wilai*
 Cc: XXX; YYY; KKKKKKKK
Subject: *NPR kick off material preparation* ***Date***: *Friday 23 June 2019*
Time: *10.00-11.00*
Place: *CMR room*
Participants: *K. Watchara, K. Pritoon, K. Wijit*

(***MN 34: formal form***)
KNH Mechanical Reliability Monthly Meeting
Meeting time/date/room: *13.30-16.00/10 Dec 2018/ Room 1*
Attendees   *Wisanu K, Alongkorn, J, Suthep,W, Nipon, P*

M = move   S= step.

Move 2 Opening salutation (obligatory in e-mail form)

Eighty-five point seven percent of data in the corpus (48 e-mails) conformed to this move. The purpose of this move is to help the writers identify the reader and to invite the reader to read the minutes using various salutation words such as *Dear all* and *Dear sir*. This is similar to the results of studies conducted by Qasim et al. (2015) and Thaweewong (2006). The occurrence of move 2 in this corpus seems to be quite high, so it can be interpreted as an obligatory move. There was a variety of salutations and address terms in this move. The writer greeted his or her correspondents by Dear + group (e.g. *Dear Team, Dear all, Dear all concerned, Dear team name*), Hi or Hello + group (e.g. *Hi team, Hi all, Hello all*), Team, and sent a message without a salutation. However, it was found that most engineers frequently used *Dear all* (26.7%), *Dear team* (17.8%), and *Dear names/team names/company names* (16%) as the opening salutation. In this regard, the results showed that most of the addressing terms referred to group of participants. These typical addressing terms were widely found in the corpus. By nature, an engineering company is organized in several departments (e.g., sale

department, product department). Engineers have to deal with co-workers within the department as well as co-workers from different departments. In order to strengthen their department's solidarity and unity, the collective addressee is deployed. Moreover, the writers send the minutes to the group individuals that attend the meeting together. The author did not write to each recipient specifically. Abbasian and Tahririan (2008) state that the expressions 'Dear all' and 'Dear + group' shows the ability of using the e-mail medium to handle a large group of interlocutors at the same time. This might be different from sending general e-mails where the writers normally use salutations such as Dear +Title+ surname, Dear + Sir, and the recipient's name as they know who the recipients are.

Move 3 Establishing correspondence chain (obligatory in e-mail form)

The e-mail writer used this move to begin the communication. This occurred in 46 e-mails, accounting for 82.1% of the data in the corpus. This quite high occurrence showed that this move is obligatory and conventional. The writer achieved this purpose by using three strategies: an invitation to read (69.6%), thanking to the participants for attending the previous meeting (57.1%), and referring to previous events (8.9%) in the following examples.

1. *(MN 83) Below is a summary after the discussion. M3S1*
2. *(MN 36) As discussed today, please find the MOM stated below. M3S1*
3. *(MN 29, 42) Thank you for joining the meeting.M3S2*

Referring to the formulaic expressions in step 3.1 and 3.2 (see Table 2), it implies the politeness of Thai engineers when they write the minutes of meetings. This is because they thanked the attendees who joined the meeting and they also used *"please"* when they invited the recipients to read the minutes. The use of *"please"* and *"kindly"* implies a friendly and cheerful atmosphere in working as it can help reduce the commanding tones of expression (Mehrpour & Mehrzard, 2013; Qasim et al., 2015, and Santos, 2002). More information about linguistic features of this move will be discussed in lexico-grammatical section.

Move 4 Content of the minutes (obligatory)

Move 4 is a core move (obligatory and convention) as it provides the main purpose or results of each meeting. It shows the content of meeting. It appeared in all of the minutes of the meetings (both e-mail forms and company forms), accounting for 100% occurrence in the corpus. There were 4 strategies in writing the content. The engineers normally begin by writing the discussion results/announcement/ progress report/and action

plan (100%). Then the actors or department, timeline, and status involving in the specified matter are mentioned (78.2%). This might be because engineers need to have someone to be responsible for the work that they discussed in step 4.1 (see Table 2), so the names of actors/department names/company names must be mentioned in step 4.2. This step is important as can be seen from the occurrence of e-mails and company forms i.e., at 90 out of 115 (78.2%). Additionally, the timeline in step 4.3 is also dominant (75.6%). The purpose of this step is to show the addressees the expected time to finish their work or the specific time that they finished their work. As for step 4.4 (27.8%), engineers discuss the status of their work. However, it was not necessary to write these 4 steps at the same time except for step 1, which is an obligatory step. Interestingly, all four steps normally appeared together in the company form more than that presented in the e-mail form. The high proportion of steps manifested (step 4.1=59 instances, step 4.2 = 51 instances, step 4.3 = 55 instances, and step 4.4 = 29 instances) in the company meeting formats. The results of move 4 agreed with the analysis results of Wolfe (2006), who studied the patterns of the minutes of meeting. The characteristics of the minutes in this study were similar to one of the patterns of the minutes of meetings in that study, i.e., action-oriented style (Wolfe, 2006). This is the minutes that employees use in the workplace setting where the content was written in brief form, focusing on decisions with actions, responsibilities, and deadlines (Wolfe, 2006). An example of move 4 is shown below.

MN 80

1. *Data sharing wrong type setting*
   - *KKK proposed YYY to update a patch version because converting all test programs takes too many resources.*
   - *YYY agreed to update the patch version. Action owner: YYY: Paul Smith, Jimmy Carl.*

Move 5 Closing correspondence chain (optional in e-mail form)

The aim of this move is to close the communication. This move occurred 33.9% of in e-mail (optional). Two steps were found here. The first one (soliciting a response:14.2%) was to encourage the readers to respond in some way. For example, *please let me know your available time for the next meeting and please let me know if I have missed any points.* The second one, ending positively (23.2%), was used when the writer wanted to close the message with good will, for example, *thank for your participation, and thanks.* Abbasian and Tahririan (2008) concluded that the senders can persuade and show appreciation towards the readers in the closing move of writing business e-mail.

Move 6 Closing salutation (obligatory in e-mail form)

This move presents a salutation expression of saying goodbye to the readers. Seventy-five percent of the e-mail samples ended with *'Best regards'* as the salutation. These results are congruent with Changpueng (2009) (move 6), Kerkeb (2013) (move 6), and Thaweewong (2006) (move 7). This might be because engineers think that *'Best regards'* can be used to show politeness in both formal and informal situations. This can be seen from the samples where they sent the minutes to all attendees and others that were at the administrative level. Also, it was found from personal communication with the companies that provided the minutes data that engineers normally use *'Best regards'* because they have seen engineers in their community use it (K. Baisawet, personal communication, January, 2020).

Move 7 Attaching document (optional)

The aim of this move is to list the documents attached to the message. It is optional as it appeared in 34.7% of the 115 samples in both forms of the minutes of meetings. It is similar to the result of analysis of move 4 of Changpueng (2009) and Thaweewong (2006). It was noted that this move was flexible as it can occur anywhere. For example, the writer may mention a previous situation in move 2 and can provide the link as an attachment for the readers to check the information themselves. Further, they may provide the attached file in move 4 if they want the recipient to read some information that is related to the content of the meeting. Examples of move 7 are given below.

> (MN 107) *The attached file is the list of all work stations in XXX.*
> (MN 108) *More details can be seen in the attached file below.*

Lexico-grammatical features of the minutes of a meeting

This section aims at reporting the results of the micro-textual level, the typical lexico-grammatical features of move 3 and 4.

Lexico-grammatical features in move 3

The analysis of move 3, establishing a correspondence chain, revealed that the engineers preferred using formulaic expressions. Formulaic expressions where the senders invite the readers to read the minutes were used most frequently. This can be seen from the 19 occurrences out of 39. Also, they use *"please"* to show politeness to request the readers to read the minutes. This occurred 17 out of 39 times. This agrees with many studies (e.g. Jalilifar & Beitsayyah, 2011; Santos, 2002; Thaweewong, 2006). Using *"please"* to invite readers to read the minutes is the linguistic realization of an imperative request. *"Please"* can be used with imperative mood with some verbs when one is explaining something. For example, *please review the minutes of meeting. Please see the MOM below.* Another kind of formulaic expression is thanking the readers that had attended the meeting previously (12 occurrences out of 39). All of the typical verbs were written in present simple tense form using the active voice. The high use of verbs expressing thanks and inviting the readers to read the minutes included copular verbs (e.g., *is*, *are*), *thank*, *see*, *join*, *summarize*, and *find*. The examples below illustrate this feature:

> *Invite readers to read*
> (MN 6) *The minutes of the meeting **are below**.*
> (MN 59) ***Please find*** *the minutes below.*

> *Thank for attending meeting*
> (MN 100) ***Thank you*** *for attending the meeting yesterday.*

Lexico-grammatical features in move 4

This move is a common move of writing minutes. The important content is reported here. This study analyzed 3,640 code units in relation to lexico-grammatical features of minutes both written in e-mail forms and in company meeting forms. It seems that most engineers rarely use compound or complex sentence forms. Engineers believe that using simple sentence forms makes it easy to declare information (Wang, 2008).

Typical lexico-grammatical features were analyzed, such as verbs, pronouns, noun phrases, and imperative sentences. (see Table 3 and 4).

Table 3

Results of Tense and Voice in the Minutes of Meetings Written by Engineers

Tenses and Voice		Frequency	Percentage
Tense	Simple present	1,197	32.8
	Simple past	536	14.7
	Future	393	10.7
Voice	Active	3,212	88.2
	Passive	428	11.76

Table 3 presents the frequency of tenses and voice in the minutes written by engineers. Simple present tense and active voice were remarkable in number. Wallwork (2014) listed conditions where the simple present tense is used in meetings, including presenting states and situations that do not change, and referring to actions that are done regularly. The high-frequency use of simple present tense and active voice is because engineers want to inform the facts and the focus is placed on the

subject who acts upon its verb (M. Weradach, personal communication, May 10, 2018). Additionally, the results showed that sometimes engineers needed to refer to actions that have occurred in the past using the simple past tense. This is because some discussions or announcements in the meeting stem from previous situations (S. Sumruay, personal communication, May 11, 2018). The minute takers also use future tense in the minutes. When the minute takers make references to future actions or future plan, the future tense is deployed (Claudia & Abrudan, 2019). This might be because after the meeting discussion they plan to do something later. The examples below briefly show various tenses and the active voice in writing the minutes of meetings.

> *(MN 92) All spare parts for the robot arm grippers and swing arm grippers **are** ready in FF store.*

> *(MN 94) JJJ **will review** and **revise** chart as per the attachment.*

A few more remarkable linguistic features in writing minutes consist of noun phrases, pronoun, and imperative sentences as shown in Table 4.

Table 4
The Results for Noun Phrases and Imperative Sentences

Noun phrases and imperative sentences	Frequency	Percentage
Noun phrases	928	25.4
Imperative sentences	507	13.9

Table 4 illustrates that engineers also use noun phrases and imperative sentences in writing the minutes of meetings. According to the interviews (S. Prasandee, personal communication, September 13, 2019; S. Saetung, personal communication, August 16, 2019), they prefer using the imperative sentences and noun phrases because they see other engineers used them when they read minutes. Minutes of meetings have effects on the meeting participants and their co-workers directly and indirectly. Therefore, the minutes recorded by the minute takers have to be straightforward. This makes pending and on-going activities progress smoothly. Based on this function, imperative sentences are deployed to collectively instruct the meeting's stakeholders. Using imperative form is a preference of engineers since they are typically used for guiding the readers about the stages of what needs to be done.

The instructive function of imperative sentences was explored in Claudia and Abrudan's work (2019) on economics and business. This function in the discourse structure of minutes aims at keeping the public's attention, gaining trust, and raising interest. In the current study, the verbs chosen using the imperative mood structure were typically material verbs (e.g., *make, compare, process, start, and reduce*). These verbs were selected to express the acting and doing stage of the work discussed by the meeting participants. Moreover, engineers normally write agenda or topics for discussion using noun phrases. Then they use bullets together with the imperative sentences or noun phrases to write the details under each topic or each agenda. Below are examples of using noun phrases and imperative sentences in writing minutes.

(MN 100)
- **Review of the trial** in JCD on 18 July with FM
    - 2 conditions tested: temperature of EE after extrusion
    - The NC rate is 50 %
- **Possible causes of cured lump** seen in JCD
    - **Too much thermic provided to the mix in Z**: solved by changing the process
    - **Contamination in Z**: to be investigate

Interestingly, the engineers seemed to always use the bullet form in writing the content of the minutes. The reason is to accommodate an easy reading of the topics in the minutes (B. Kaweewong, Personal communication, June 12, 2017; M. Weradach, personal communication, May 10, 2019).

As for personal pronouns, it was found that engineers rarely use first or second personal pronouns in their minutes. They sometimes use the first-person plural pronoun (we). Using *"we"* reflects the focus on the corporation as a whole of the writers, not the writer as an individual (Mehrpour & Mehrzad, 2013; Wang, 2008). Furthermore, the results are contrary to Flowerdew and Wan (2006) and Santos (2002). Flowerdew and Wan (2006) and Santos (2002) found that the first personal pronoun *"I"* was used a lot in because *"I"* is used when the writer wants to communicate with the readers. Normally, engineers use the third party (proper nouns) in their writing. Proper nouns can be used with various forms of proper names, such as full names of people or full names of companies/departments, abbreviations of the company name/the department name/people's names such as *Michelin, TDK,* and *Testing (name of a department).* Mentioning these names is important in writing minutes since engineers need to have someone to be responsible in their work (move 4 step 4.2). Also, when they mention some previous events as a reference in the meeting, they need these names to be the subjects of sentences (move 3 step 3.3). The proper nouns found in engineering

meeting minutes were similar to the proper nouns used in medical and biological documents (Fukuda et al., 1998, p. 707). Interestingly, the use of abbreviation was not only applied to the names of people/departments, or the company, but engineers also prefer using abbreviations for example of projects, equipment, technical terms and work processes. This is because engineers know what they mean. They normally use them in their community, and therefore they do not need to write out the full names (B. Chatchai personal communication, June 12, 2017; B. Kaweewong, Personal communication, June 12, 2017) In addition, the use of abbreviation and engineering-related terms widely found in this current study illustrates a typical feature of engineering minutes—the minutes are meant to be read by the company's stakeholders involving activities, tasks, and arrangements and complying with what has been mentioned and discussed in the meeting. Under this circumstance, non-stakeholders will not be able to decode the abbreviation. This suggests that minutes read by non-relevant people are meaningless, as the information is difficult to understand and comprehend due to a lack of the engineering context. Hereunder are some examples extracted from the meeting corpus.

(MN 100) ***O/JMN*** *sent cured lumps to K lab for analysis.* ***Willy*** *will manage the request.*

(MN 109) ***MNB/ Siri*** *and* ***QMM/ Prapat*** *will support building samples focusing on residual valve assembly process.*

The last lexico-grammatical feature that was analyzed in this study was verbs and nouns that engineers frequently used. The total number of words used was 68,579 in this corpus. The first thirty key word verbs and nouns were ordered based on the rank of frequency of occurrence, i.e., *meeting, ongoing, project, follow, team, issue, review, action, target, change, test, report, plan, process, information, update, status, completed, check, need, production, progress, system, attachment, product, line, data, minutes, material, and equipment*. These words reflected the relationship between the words and the theme of texts (minutes of the meeting). The results were congruent with Yang, who found many key words that graduate nursing students should know in order to comprehend texts and to be able to write well (Yang, 2015). Here is an example of the use of those words.

(MN 68)

Subject	Action	Lead
KJ leak at pipe routing	***Follow*** *up issue, recheck &* ***change*** *gasket of all flange*	*Winai*
Load cell of mixing box	***Update*** *new Load cell by KJ team 4 hrs*	*Piyaporn*

CONCLUSION

The aim of this study was to analyze the corpus of the minutes of meetings corpus written by Thai engineers using the method of genre analysis (e.g., Bhatia, 1993; Swales, 1990; and Thaweewong, 2006), as well as their lexico-grammatical features. Despite the small size of the corpus utilised, this study attempted to examine the data qualitatively at both macro and micro levels. It can therefore be used as a pilot project for further study.

Results of genre analysis found that there are seven typical moves in minutes of the meetings written by Thai engineers. It supports the definition of genre of Bhatia in that participants (engineers) acknowledge and accept the conventions and constraints in writing within such a genre. In addition, the results revealed that writing minutes using the e-mail form was similar to writing business e-mails in general. The present study has shed light on the rhetorical structure and characteristics of the minutes of meetings in the community of engineers. Such knowledge in turn leads to helping meeting minute authors, especially novice engineers, to write the minutes like experienced engineers, as writers should be sensitive to the conventions of a genre of writing texts in order to write effectively in each professional context.

In terms of the lexico-grammatical features of moves 3 and moves 4, results of the analysis indicated that move 3 typically utilised formulaic expressions of thanking the readers that attended the meeting and inviting the readers to read the minutes using *"please"*. In move 4, the simple present tense was used a lot in writing the content of the minutes of meetings. Further, most of the sentences were written in the active voice. In addition, the pronoun form (first person plural pronoun *"we"*), noun phrases, proper nouns, and imperative sentences were used a lot in writing the minutes. Moreover, the engineers seemed to always use the bullet form in writing the content of the minutes in order to convey the information in brief. Further, using abbreviations in writing the minutes is another style that engineers seemed to always use in writing minutes concerning someone's responsibility, the names of devices or processes, etc. A keyword list was also examined in order to demonstrate groups of words that engineers use in writing the minutes of meetings.

Results of the study can be taken into account in designing materials and pedagogy, especially in the writing for specific purposes. Teachers and

course designers can apply the move analysis and lexico-grammatical knowledge to create lessons for learners (e.g. Henry & Roseberry, 2001; Changpueng & Wattanasin, 2018), and for that, using the genre-based approach is recommended because it can train students to write effectively. Knowledge of lexico-grammatical features would be useful in helping course designers create exercises for practice writing at the sentence level, together with the knowledge of words related to the minutes of meetings.

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