

Learning opportunities in PhD supervisory talks: A social constructionist perspective

Wenwen Tian and Wareesiri Singhasiri

King Mongkut's University of Technology Thonburi, Thailand

Although PhD supervision has been recognised as an educative process and a complex pedagogy for decades, there is little research into on-site pedagogic processes. Informed by social constructionism and a Foucauldian approach, this qualitative case study explores how learning opportunities were created by analysing both a supervisor's verbal interventions and a supervisee's verbal responses during face to face PhD supervisory talks. Audio recordings were gathered over one semester and transcribed verbatim. Findings suggest that face to face supervisory talks create empowering pedagogic forums for the supervisee to proactively and reactively speak her mind and learn to make decisions based upon supervisors' authoritative and facilitative interventions. Hopefully, this study adds to doctoral pedagogy with an idiosyncratic practice and empirical evidence, thereby, it invites future interested researchers' interpretations of their context-specific supervision.

Introduction

In doctoral studies literature, PhD supervision was first recognised as “a form of teaching” by Connell (1985, p.40). Since then, it has been theorised as pedagogy appositely connoting knowledge and power (e.g., Green & Lee, 1995; Smith, 2001; Grant, 2001, 2003, 2008). Smith (2001) acknowledged that the uniqueness and provocativeness of conceptualising PhD supervision as pedagogic relations lies in its complexity “between teaching, learning and knowledge production” (p.28). Connell and Manathunga (2012) further emphasised that PhD pedagogy is a distinctive and complex kind of teaching. As a result, over the last three decades, research into research supervision has predominately attempted to unearth PhD pedagogy, veiled with complexity involving power relations circulating among supervisors, students, and knowledge. Most of these studies on PhD supervision explored supervisory styles, types of supervisor's power, facilitators and barriers to doctoral supervision and supervisory relationships through interviews and questionnaires based on either supervisor's narrative accounts or students' perceptions (e.g., Askew et al., 2016; Boehe, 2016; Franke & Arvidsson 2010, Lahenius & Ikävalko, 2014; 2012; Manathunga, 2007; Murphy & Wright, 2005). However, little on-site evidence has been reported regarding how teaching and learning take place in actual supervisory practice, particularly in face to face supervisory interactions. Based on a thematic analysis of 995 papers concerning issues of doctoral studies, Jones (2013) reported that existing doctoral studies fall short in addressing the actual teaching in doctoral education, which accounts only for 3% compared to the other identified themes (see Figure 1).

Additionally, early studies on PhD pedagogy more or less assume that teaching and learning in PhD supervision take place under a hierarchical relationship and unidirectional mode of transmitting knowledge from powerful supervisors to powerless supervisees. So far, only several exceptional studies have shed some lights on the actual pedagogic

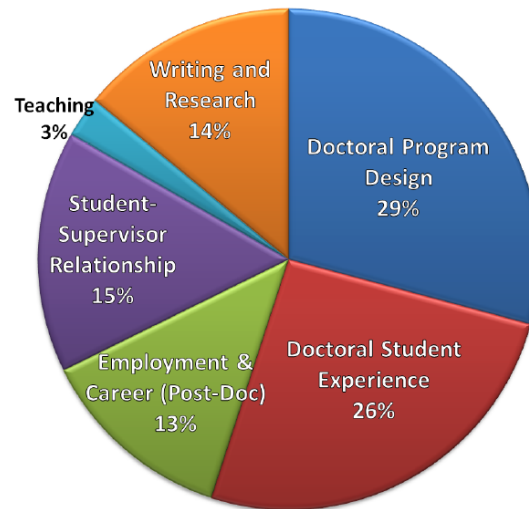


Figure 1: Distribution of discussion by issue on doctoral studies, 1971 to 2012
(quoted from Jones, 2013, p. 5)

processes (Grant, 2008; Kobayashi, Grout & Rump, 2013, 2015; Li & Seale, 2007; Schulze, 2012; Wisker, et al. 2003; Wisker, 2012). Gurevitch (2001) analogised supervision dialogue as a battle over thesis research where “speech fights against another speech” (p. 89). Meanwhile, he claimed that the right to speak – the “dictating mouth” – is the supervisor’s (ibid, p. 94). Consequently, PhD students’ roles and voices are quite often invisible and unheard. On the contrary, Wisker (2012, p.187) foregrounded supervisory dialogues as “the heart of the research student’s learning” and featured supervisory dialogue as a “creative, challenging, and empowering dialogue” where students are encouraged to take opportunities to explore and discuss their research ideas. Being inspired by Wisker (2012), we believe that, after going through their Master’s research, PhD students have the ability to voice their opinions and make contributions to the supervisory process. This leads to a need to look into how power can be strategically deployed to empower learning in PhD supervisory interactions. Our research specifically addresses this need. This research is significant because it provides the reader with an on-site observation and empirical evidence by exploring how power as a relation can be a positive and productive force in creating learning opportunities during face to face supervisory talks.

To this end, the remainder of this paper presents a brief description of social constructionism and Foucault’s concept of power relations as our theoretical underpinnings. Then related studies on PhD supervisory dialogues are reviewed. A description of our research methodology followed by the interpretations and discussions will be presented. It concludes with implications for future PhD supervisory practice.

Theoretical underpinnings

PhD supervision informed by social constructionism

In literature, social constructivism is interchangeably used with social constructionism since both consistently claim that knowledge is constructed, not discovered. However, the core difference and the focus of inquiry lies in whether knowledge construction is achieved through individual cognitive endeavours (the former) or derived from relevant social groups within the context of a conversational domain (the latter) (e.g., Gasper, 1999; Young & Collin, 2004). A social constructionist approach enables one to see students as individuals capable of critically questioning, and it focuses on students' empowerment. As a result, social constructionism problematises traditional views of supervision in which an "expert" supervisor provides knowledge, teaches skills, and advises a supervisee about the best way to conduct PhD research. According to Philp, Guy and Lowe (2007).

A social constructionist perspective then, would view supervision, not as a definitive model, a quest for objective truth about clients or the finding of appropriate, corrective interventions, but as the co-creation and development of new meanings through conversation. (p.52)

We thereby applaud a social constructionist perspective which destabilises the hierarchical supervisory (Copeland, et al, 2011; Philp, Guy & Lowe, 2007). The word "destabilise" doesn't reject or degrade the pedagogical value of the hierarchical supervisory model. Instead, it expands the space for teaching and learning by exploring various roles and strategies supervisors and doctoral students can use to create meaningful learning opportunities. Within doctoral supervision, although a supervision relationship is hierarchical, both students and supervisors are capable of action as articulated by Conti et al. (2001):

In particular, students need legitimate power, that is, the right to claim their voice, be an active agent in their supervision, and have responsibility and ownership of the process and product. (p.166)

Consistent with this line of thinking, the mission of supervisors is "to encourage learners to become critical and creative thinkers on their path to self-discovery and empowerment" (van den Berg 2011, cited in Schulze, 2012, p.2). This entails an in-depth examination of how supervisors' positive use of power can facilitate the learning process during actual supervisory interactions. Adhering to the social constructionist premise, Foucault notes "knowledge is not just a reflection of reality" (Jørgensen & Phillips, 2002, p.13). Next, Foucauldian approach to understanding power relations in PhD supervision will be introduced.

Power relations in PhD supervision: Foucauldian approach

In existing studies on PhD supervision, the Foucauldian view has been applied frequently in analysing supervisory discourses (e.g. Chiang, 2010; Grant, 2001, 2003). Grant (2001,

p.14) proposed two senses of power relations in analysing doctoral supervision, namely, “power as structured and unequal” and “power as a relation” between student and supervisor. She elaborated that, being structural or unequal, supervisors are more powerful than students as more knowledgeable and experienced researchers due to ‘their institutional position and functions’. As a result, students may feel powerless and become passive just waiting for supervisors to provide guidance and make decisions for them. The other sense is power as a relation underpinned by the Foucauldian view that supervisor and student are capable of acting upon one another. The power-as-a-relation sense explicitly postulates a constructive and dynamic way of exercising power to enable students not only to be reactive by acting out the supervisor’s powerful commands but also to be active and proactive by acting upon supervisor’s empowering guidance. Grant (2003) reckoned that doctoral supervision produces not only a sound knowledge-breaking thesis but also transforms students into independent researchers. She further pointed out that the transformation can only happen through productive power relations engaging student and supervisor/s.

Chiang (2010) applied Foucault’s concept of power to analyse professional power doctoral dissertation supervision from three dimensions. First, power is connected with knowledge, discourse, institution, and society. Second, power is productive. Third, power is exercised by individuals upon one another through strategic actions in communication. It is a positive, enabling, and productive force. This leads to our efforts to explore how ‘power as a relation’ can be a positive and productive force in creating learning opportunities during face to face supervisory talks.

Supervisory dialogues as learning conversations: A focused review

Supervisory dialogues are recognised as learning conversations aiming to initiate and cultivate a novice scholar to become an independent researcher (e.g., Kobayashi, Grout & Rump, 2013; 2015; Li & Seale; 2007; Wisker et al., 2003; Wisker, 2012). Following cohorts of Israeli PhDs’ supervisory dialogues, Wisker et al. (2003) reported broad types of teaching and learning behaviours based on John Heron’s (1975) six category intervention analysis (Table 1).

Acknowledging the vital importance of supervisor’s guidance and supervisory relationship, Wisker et al. (2003) argued that supervisory dialogues between supervisors and students may stimulate forms of:

... collaboration and interaction as collegial equals in order to empower students to undertake and maintain momentum with their own research, ensuring that the responsibility and self-awareness this involves encourages them to own the process and the outcomes. (p.387)

Table 1: Broad types of teaching and learning behaviour in supervisory dialogues
(adapted from Wisker et al, 2003, pp. 391-392)

Supervisor's interventions	Student's responses
<ul style="list-style-type: none"> ▪ didactic ▪ prescriptive ▪ informative ▪ confronting ▪ tension relieving/social ▪ eliciting ▪ supporting ▪ summarising ▪ clarifying ▪ collegial exchange. 	<ul style="list-style-type: none"> ▪ seeking direction and information ▪ seeking feedback ▪ information giving ▪ information seeking ▪ working out through talk/developing ideas and plans through dialogue ▪ student defining ideas ▪ student developing ideas ▪ student judgment re: needs ▪ student pleasing supervisor ▪ student relating previous work to own work, theory to practice, experience to research culture ▪ student taking control ▪ tentative-provisional thinking ▪ uncertainty (of reaching PhD) unclear end result ▪ clear idea of the project as PhD.

Viewing supervisory dialogue as a “creative, challenging and empowering dialogue”, Wisker (2012, p. 196-198) further highlighted a typology of dialogical actions, e.g. “didactic”, “prescriptive”, “informative”, “confronting and challenging”, “tension-relieving”, “encouraging and facilitating”, “eliciting”, “supporting”, “summarising”, “clarifying”, and “collegial exchange”. However, the two supervisory dialogues presented by Wisker et al. (2003) show it is the supervisor who dominates the conversation floor and explicitly tells the student what to do. Grant (2008) criticised that it falls short in supporting their argument about collaboration and empowerment during supervisory interactions. It is obvious that the supervisor is instructing, although the supervisory dialogues might be instrumental at the particular moment. Nevertheless, the supervisor’s explicit instruction may disempower the student to think and respond critically, even if an unintentional one. She found that the supervisory dialogue was an asymmetrical, somewhat formal, exchange figuring the agonistic identities of master and slave (Grant, 2008). Viewed holistically, a variety of interactions run through supervisory dialogues. Some are informing, indicating a power-centred (directive and task-oriented) supervisory mode. Some eliciting, displaying a facilitation-centred supervision (nondirective and process-oriented) supervisory mode. Although Wisker (2003, et al.) and Wisker’s (2012) studies do not provide a pertinent view of how the supervisor’s interventions empower students to learn, their reported teaching and learning behaviour are instrumental for the current study.

Li & Seale (2007) conducted a longitudinal observational case study investigating the teaching and learning process of doing qualitative data analysis from written assignments and supervisory talks on a doctoral research project in the nursing area. Based on qualitative analysis of selected examples of interactions, they reported problems

encountered by students in learning how to do research at the data analysis stage and some suggested strategies from the supervisor for improving student's data analysis. Noticeably, there is a taken-for-granted hierarchical apprenticeship model in their study. But, their analysis of supervisory dialogues does shed some light on how the supervisor helps the students to learn research skills.

From social constructivism, critical pedagogy and theory on the empowerment of students, Schulze (2012) conducted a phenomenological case study through interviews for both doctoral students and supervisors' views on empowering and disempowering in supervisory interactions. The findings revealed that students don't always feel empowered through two-way communication in a supportive environment. It is suggested that the facilitation-centred style is preferable to the power-centred one in empowering students. That calls for the need to see how empowering can be realised in actual face to face supervision.

Kobayashi, Grout and Rump (2013) presented a case of a single PhD supervision session with multiple supervisors in the life sciences area aiming to identify how learning opportunities are created. The supervisors and PhD student were interviewed about their experiences of the supervisory process. Findings show that the divergent voices of the supervisors helped to create learning opportunities. Combining participation and positioning theory as a sociocultural perspective and variation theory as an individual constructivist perspective on learning, Kobayashi, Grout and Rump (2015) explored how tensions in scientific discussion between two supervisors can become learning opportunities for a PhD student. Based on the analysis of one complex episode, they suggested that authentic interactions involving multiple supervisors modelling scientific argumentation can create learning opportunities for the PhD student and thereby add value to supervision. Obviously, the student's voice was not heard in their data and the student's role and power in the learning process may be overlooked.

It should be noted that Kobayashi, Grout and Rump's (2015) study didn't attempt to describe a true picture of the power relations in their studies. However, their conceptualisation of learning opportunities is useful for our study. What they identified and described from analysing actual supervision is "what it is possible to learn about a particular object of learning in a certain setting" (p.42). In accordance with Kobayashi, Grout and Rump's (2015) conceptualisation of learning opportunities, we argue that it is infeasible to measure the actual learning from supervision because it is indeterminate in distinguishing whether the learning is gained from the supervision meetings or from other situations.

Methodology

A qualitative case study research paradigm is adopted to explore how learning opportunities are created during face to face supervisory talks as empowering forums. It looks into pedagogic processes rather than measuring learning outcomes within its real-life context (Yin, 1989). This study is exploratory and interpretive with no tendency of generalisability or theory-building; rather, it aims to gain empirical experience of unique

cases worthy of exploring (Duff, 2008). To be exploratory, it sheds some light on the naturally occurring supervisory interactions in order to gain insights into on-site pedagogic processes. To be interpretive, we let the data unfold itself for readers' interpretations. Then, the current two researchers, as the members of the current research context who are substantially familiar with the academic norms and the participants, will provide readers with in-depth interpretation from an insiders' view.

Research context and participants

The current study is part of the first author's PhD thesis research conducted in an international doctoral program majoring in Applied Linguistics at a renowned government university in Thailand. Naturally occurring face to face supervisory talks were audio-recorded over one academic semester. Since the main supervisor (T1) is a British male, the language is English. Both the co-supervisor (T2) and the student (ST) are Thai females. T1 was the most influential lecturer and experienced researcher with rich supervisory experience who had been working in the university for more than twenty years. T2 was a learning-to-be supervisor institutionally assigned to co-supervise ST in order to be trained to supervise PhD students.

Data collection and transcription

At the time of data collection, ST had recently passed her proposal defence after her first year course work and was seeking to narrow down the focus of her proposed thesis project. Consent forms were signed by all participants in the first session of data collection. Ethical measures that were taken included informed consent, and assurances of anonymity and confidentiality. The research purpose was explicitly explained to the participants and consent forms were signed by participants at the first time of data collection.

For data transcription, we first attempted to do a broad transcription by following established transcription principles and conventions (e.g., Edwards, 2008; Ehlich, 1993; Tannen, 2007). Then, reflecting on our research purpose, we decided to focus solely on the participants' verbal utterances by using less complex symbols. Hence, the data were transcribed verbatim by using selected and self-designed transcription symbols (see Table 2). Names of participants and places were anonymous.

Table 2: Transcription symbols

T1	main supervisor	CAPS	an emphatic tone
T2	co-supervisor	=	latched utterances
ST	PhD student	< >	overlapped utterances
W, M	initials of persons in the current research community	{ }	transcriber's comments
...	a perceptible pause less than 3 seconds	@	laughter of a speaker
.	an utterance-final falling intonation	<@>	collective laughter
?	a question or a rising intonation statement	(xxx)	unclear utterances
		5	a pause longer than 3 seconds

Data analysis

Based on Heron's (1975) categories and Wisker et al. (2003) and Wisker's (2012) typologies, we conducted a pilot study analysing the shortest (15 minutes) and the longest (106 minutes) sessions. Two analytical frameworks were introduced by the researchers (see Appendix A and B).

Our analytical frameworks capture both supervisors and student's verbal behaviours with contextualised definitions and descriptors extracted from the current data. There is a difference between the supervisee's reactive and proactive behaviour. While the supervisee's reactive behaviour dealt with supervisor's request or hints, proactive behaviour signals the supervisee's self-reflection and initiative efforts for making meaning. Reactive behaviours are often impulsive and passive; whereas proactive behaviour is active, reflective and solution focused.

We then analysed the transcripts using a general inductive approach (Thomas, 2003). This involved transcripts of recordings being read multiple times in order to identify common themes. These were then compared across the seven supervisory sessions in order to identify commonalities and differences. The first author of the current study reiteratively analysed the data and checked the results over different periods to achieve intra-reliability. The results were cross-checked by the first researcher's supervisor (the second author of this study). Double coding as means of inter-reliability check (Miles & Huberman, 1994) was conducted by the first author's PhD peer and the coefficient was calculated as 0.92. Data extracts presented in next section are subject to full ethical scrutiny and approval of relevant ethical committees.

Findings and interpretations

Given the limitation of the space, only four excerpts rich with participants' interaction are presented for interpretation. The four excerpts exemplify how power as a relational structure is played out as a positive force to create learning opportunities during supervisory talks.

Excerpts 1 and 2 were extracted from session one. During this session, the discussion was about T1's research goal, especially criteria for data collection.

Excerpt 1: Empowering authorship to decision-making

101 T1:	At first I thought that I am going to choose only the linguistic features without likely to give some functions... you know... before that (xxx) [<i>Proactive: Self-monitoring problems</i>] ... right? [<i>Proactive: Asking</i>]
102 T2:	It's up to you then. [<i>Confrontative: Challenging</i>]
103 ST:	Yeah? [<i>Proactive: Asking</i>]
104 T1:	It's up to you... you still have a lot of decisions you can make here... you are still open to what you want to do. [<i>Confrontative: Challenging</i>]
105 ST:	Ok... so it's my choice? [<i>Proactive: Asking</i>]

106 T1:	Yeah [<i>Evaluative: Confirming</i>]... you said... basically what you have been saying is I want to do... look at prototypicality based on starts and stages <T2: Uh> or I want to look at prototypicality based on moves and steps <T2: Uh> or I want to look at prototypicality based on anything ... the things come out with the data [<i>Informative: Summarising</i>] <T2: Uh> that choices are still open to you <T2: Uh> you have to make your decisions about that I guess. [<i>Confrontative: Challenging</i>]
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Extracted from session one, recorded 1 July 2010.

In Excerpt 1, T1 is fairly authoritative with confronting interventions to challenge ST to make her own decisions (Turns 101 and 104). ST's lack of confidence in making decision on her own can be seen from her repeated confirmation-seeking questions (Turns 103, 105). By affirming ST's proposed ideas, T1 affirmed ST's proposed ideas in order to lift up ST upon that particular decision-making on choosing linguistic features. T2's back-channels indicate her collegial support as a co-supervisor and her acknowledgement of T1's expertise as a novice supervisor (Turn 106). At this point, ST is encouraged to monitor her situation and take responsibility to make decisions. Instead of making decisions for ST, both supervisors relinquished their authority of power and knowledge by encouraging ST to think for herself and make decisions on her own part. In doing so, ST is legitimated to act upon supervisors' constructive use of power and is authorised to make decisions on her own by challenging the established power relationship.

Excerpt 2: Negotiating stereotyped mind-set

118 T1:	At the moment... you are still not sure what you are doing ...Why? [<i>Catalytic: Eliciting</i>]
119 C2:	If I @@ [<i>Reactive: Answering</i>]
120 T1:	You have got a broad idea <T2: Uh> you don't need to have specific ideas <T2: Uh> you don't need...yes...there is a problem you got data without knowing what you are looking at the moment...and you don't know when you are going to do that... [<i>Evaluative: Justifying</i>] you are worried for...for someone like you <T2: Uh> I think you don't worry about it...you don't know any...don't worry about it. [<i>Cathartic: Tension-relieving</i>]
121 ST:	It's different from what I am doing research myself before... I mean... I can... we can go back and for anything is not that clear <T2: Yeah> I mean I have to... it's like I have to report to you... discuss and talk to you... so I assume it should be like step by step. [<i>Proactive: Negotiating</i>]
122 T1:	No... I mean=
123 ST:	=But=
124 T1:	=What you say is about supervisions? Tell me why do you see us? What are purposes of supervisions? Is it a report of your progress? [<i>Catalytic: Eliciting</i>]
125 ST:	That's one. [<i>Reactive: Answering</i>]
126 T1:	So what else? [<i>Catalytic: Eliciting</i>]
127 ST:	Research to ask you. [<i>Reactive: Answering</i>]
128 T1:	I would say the most important is to discuss... it doesn't matter what you are actually doing [<i>Evaluative: invalidating</i>]... you are just be able to discuss and talk

about issues concerning you... talk about problems you haven't been discussing about [*Prescriptive: Suggesting*]... that's the most important thing <T2: Uh> I don't much care too much about your progress @@ <T2: Uh> that will happen if you get the discussion going well... the progress what happen automatically <T2: Uh> yes... there may be a lot of students you have to chase them up for progress because they are not well-motivated or whatever... but that doesn't apply to you [*Evaluative: Analyzing; Justifying*] <T2: Uh> let me... it's just come to talk to us... to both of us... talk about your research... the things are exciting you... things are confusing you... things are challenging you <T2: Uh> whatever. [*Prescriptive: Suggesting*]

Extracted from session one (recorded 1 July 2010)

In Excerpt 2, T1's interventions are interwoven with both authoritative and facilitative. Being authoritative, he gives suggestions and makes evaluations on ST's ideas (Turns 120 and 128). Being facilitative, he is catalytic by eliciting ST's views of and knowledge about supervision (Turn 118, 124 and 126). Seeing ST is still confined by her stereotyped concept of supervision based on her previous research experience (Turn 121), T1 explicitly puts forward his views on why ST needs supervision by showing his open-mindedness and willingness to openly discuss whatever problems, difficulties, and feelings in regard to her thesis research (Turns 120 and 128). The co-supervisor T2 fundamentally plays a supportive role to echo T1's views via backchannels (Turn 128). In this excerpt, T1's catalytic interventions trigger ST's reflection on purposes of meeting her supervisors and literally pave the way for an open communication for both academic and interpersonal issues. At this point, T1 tries to expand ST's confined knowledge of supervision, namely, reporting research progress to supervisors, to go further by encouraging ST to think out of the box about what she can bring to the discussion in doctoral supervisory talks. In doing so, ST's voice and contributions are overtly expected. In this way, T1's mixed interventions help to optimise ST's sense of control over her thesis progressing.

Excerpt 3 was extracted from session four. During this session, ST talked more than her supervisors as she appeared more comfortable and confident of speaking her mind than in previous sessions.

Excerpt 3: Enhancing ST's sense of ownership

26 T1: So what other things do you want to talk about? [*Catalytic: Eliciting*]
 27 ST: So... you think these kinds of things are ok? [*Proactive: Asking*]
 28 T1: No... you are in charge @ [*Confrontative: Challenging*]
 29 ST: This is not the style I am used to= [*Proactive: Negotiating*]
 30 T1: =you can talk about criteria [*Prescriptive: Suggesting*] <T2 & ST: (@)> How a PhD is transferring responsibilities from supervisors to students... go away [*Confrontative: Challenging*] <T2 & ST: (@)> and any other questions? [*Catalytic: Eliciting*]
 31 ST: So... I will look at the Wikipedia? [*Proactive: Asking*]
 (.5)

32 T1: So it's... most of the content... is about the Wikipedia... I mean... I don't know... classify something... give some information about particular things... length... something... right? [*Proactive: Asking*] BUT... since the length is a problem here... so I try to look at it... and most of the articles... most of the text is quite long... long... longer than 300= [*Proactive: Self-monitoring*]
 =You can't say that three lines are long [*Prescriptive: Evaluative ... entries in Wikipedia are three lines long... maybe about 50 words. [Informative: Exemplifying]*]

Extracted from session four (recorded 13 July 2010)

It should be noted here that, in this session, ST did most of the talking by reporting what she had done and been doing, as well as reflecting on why her progress was slow. In Excerpt 3, T1's interventions are interwoven with both authoritative and facilitative. T1 encourages ST to bring in more questions or ideas for discussion (Turn 26). Instead of coming up with any questions or ideas, ST proactively seeks T1's confirmation of what she had reported (Turn 27). Without giving confirmation, T1 enhances ST's sense of ownership of her thesis research with regard to decision making (Turn 28). Resisting being empowered to make decision, ST proactively negotiates her mind with T1 by expressing her feeling of uncomfortableness. To accommodate tactically ST's out-of-place feeling in the face of empowerment, while authoritatively giving clear direction, T1 keeps pushing ST to take ownership of her research through mingled authoritative/challenging and catalytic/eliciting interventions (Turn 30). In response to T1's interventions, ST takes initiative to bring up a question and make self-monitoring of her concern, namely, the text length (Turn 31). Upon hearing ST's concern for the length of text, T1's evaluative voice comes in with his authority of knowledge about entries in Wikipedia. At this point, T1's interventions authorise ST to get her voice heard first and then facilitate ST's constructing meaning and knowledge to her concerns.

Excerpt 4 was extracted from session six. ST was encouraged to think and explain critically on what she had done and why.

Excerpt 4: Encouraging critical thinking and reasoning

38 T1: What do you learn from today's supervision? [*Catalytic: Eliciting*]
 (.8)

39 ST: So... you mean... apart from the things I really have to do... right? [*Proactive: Asking*] But importantly... I learned about the... because there are something... I found... I mean... even the way I tried to select the texts... the most of the researchers... they don't provide approaches... I try to look for a lot of research articles... and... yeah... none of them tried to write them down [*Reactive: Answering*]... and I feel very upset... but I still keeping thinking that I have to find focus for my research because right now... only what I have been doing is about trying to select the texts... and I wasted a lot of time because I tried to write them down and have a clear... really clear about how to select the texts... like you said I still have confidence... happy@@ <T2 & ST: (@)> with what I am doing right now. [*Proactive: Self-monitoring*]

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- 40 T1: Two points... one is just now you said WASTED MY TIME? [*Catalytic: Eliciting*]
- 41 ST: No [*Reactive: Answering*]... I mean waste my whole process... I wanted= [*Proactive: Negotiating*]
- 42 T1: =It takes a long time but it is not wasted. [*Evaluative: Invalidating*]
- 43 ST: I did some research... but I never have to use... you know... a lot of time like this to explain @ @@ about how I select the texts. [*Proactive: Self-monitoring*]
- 44 T2: Uh.
- 45 T1: The other thing is about today... is apart from what I talked about the DRAL conference... the only point about what we actually gave you influence was five to seven {referring to ST's written work} <T2: Uh> we have not given you any other thing to count as input today. [*Informative: Summarising*]
- 46 T2: She has to find another text? {Talking to T1}
- 47 T1: Source. {Talking to T2}
- 48 T2: Ohh... sources... ok. {Talking to T1}
- 49 T1: That's the only thing which we actually gave you as an input. [*Informative: Clarifying*]
- 50 ST: So... what do you mean? [*Proactive: Asking*]
- 51 T1: Well... most of today is just you have been talking and working out your own solutions through talking about them. [*Informative: Clarifying and Summarising*]
- 52 T2: Uh.
- 53 T1: So... thank you... you don't need us... so we don't see you next year @@ [*Cathartic: Encouraging*]
- 54 ST: So you suggested that the real problem is that... I am still not confident? [*Proactive: Asking*]
- 55 T1: That's a big issue <B2: Uh> I mean that... I am talking about as a big problem because I think it's about your success <B2: Uh> there is a tendency especially about the supervisors have been imposing and talking things on and on and on until W is getting really bored and bored of my voice on the tape... today... I haven't given you any input <B2: Uh> I mean for something like the... should you try to identify purposes first... or should you try to matched them with linguistic features first... or what should be your option... we never said anything <T2: Yeah> we just sat here and listened to you. [*Informative: Clarifying and Exemplifying*]
- 56 ST: But I can get approved from your face @@@ [*Proactive: Negotiating*]
- 57 T1: My facial expressions are purely randomly assigned @@@ [*Cathartic: Tension-relieving*]
- T2 & ST: (@)
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Extracted from session six (recorded 18 August 2010)

Excerpt 4 reveals explicitly that T1 was both authoritative and facilitative while T2 played a supplementary role to guide ST to talk reflectively and find stands on her own. In Turn 38, T1's catalytic elicitation for ST's reflection on what she has learned from that day's supervision. After a relatively long pause, ST reactively answers T1's question and meanwhile, proactively monitors her noted problems of her research practice (Turn 39). Picking up ST's wording 'wasted time', T1 questions ST for clarification in Turn 40.

Answering and proactively negotiating, ST clarifies her idea (Turn 41) which gets cut off by T1's rephrasing of her message with a denial of the word 'wasted' (Turn 42). ST continues her self-monitoring by avoiding the word 'wasted' as cautioned by T1 (Turn 43). In Turn 45, T1 makes an informative summary of that day's supervision which followed by collegial exchanges (Turns 46, 47 and 48) confirming ST should find other sources. In summarising again, T1 clarifies his comment in Turn 49. Being confused, ST asked T1 for further clarification (Turn 50). T1 clarifies and summarises his idea more precisely in turn 51. To validate what ST has done well about talking through her ideas, in Turn 53, T1 amusingly teases ST by thanking her and assuring her independence by saying that ST will not need supervisors anymore. Trying to figure out what is implied in T1's message, ST proactively asks for T1's clarification (Turn 54). It is worthy of attention that it is T1's informative summary and exemplifications of how he tries to avoid being prescriptive (Turn 55). ST negotiates her thoughts proactively by articulating interpretations of T1's feelings based on his facial expressions (Turn 56). This excerpt ends with T1's cathartic style of relieving tension (Turn 57). The data here speaks of and plays out the empowering purpose of supervisory talk, that is, the supervisors intentionally sit and listen without giving any input in order to make ST in charge of the talk, get her voice heard by her supervisors and by herself as well so that her ideas can be crystalised for making decisions during the talking process.

Discussion

Findings suggest that face to face supervisory talks create empowering pedagogic forums for the supervisee to proactively and reactively speak her mind and learn to make decisions upon supervisors' authoritative and facilitative interventions. The explorations of selected exemplars show that the PhD student's voice is heard and her contribution to supervisory discourses is evident. This finding is in disagreement with Gurevitch's (2001) metaphor saying that it is the supervisor who has the right to speak by telling students what to do with the "dictating mouth" (ibid, p. 94). It also conflicts with early studies (e.g. Li & Seale, 2007; Kobayashi, Grout & Rump, 2013, 2015) that demonstrate learning opportunities are solely created by supervisor(s) under an apprenticeship model. Conversely, in this study, the co-supervisor's interventions are minimal, which is opposite to Kobayashi, Grout and Rump's findings (2013, 2015), where the PhD student most frequently appears as the listener with limited contribution to discussions. T2 contractually plays a dual role of being both a trainee learning how to supervise and a novice supervisor. Her dual role is manifested through her backchannel remarks signifying either agreement or confirmation, which is beyond the scope of the current study.

Significantly, our findings confirm Wisker's et al. (2003) and Wisker's (2012) argument that supervisory dialogues stimulate challenges and facilitate the supervisee to explore and construct knowledge with her supervisors. Being consistent with Murphy and Wright (2005), empowerment doesn't mean to ignore or eliminate the power differential between the supervisee and her supervisors. Instead, supervisors explicitly and tactically relinquish their authority of power to enhance the supervisee's sense of ownership over her thesis research by authorising her voice (as illustrated in Excerpts 1 and 3).

The finding also points to a trend to destabilise the hierarchical supervisory relationships in order to challenge the PhD's stereotyped knowledge and promote critical thinking ability of academic and social reality (as illustrated in Excerpts 2 and 4). In this sense, the supervisory talk promoted a caring and open communication forum by supervisors to help PhD students to construct knowledge on academic issues and interpersonal skills through supervisory relationships where supervisors can be both authoritative and facilitative. Being consistent with Manathunga's (2007) claim, both T1 and T2 encourage the supervisee to shape her minds through reflective practice like self-monitoring problems, crystallising ideas and seeking expert feedback, so that ST will become credentialed as a wise scholar. For example, a supervisor who 'confronting' or refusing to give direct advice or confirmation on a supervisee's ideas may appear to be abusing his/her power to the supervisee, whereas the supervisor's intentions are to empower the supervisee by expanding her ability to trial different ways of thinking and reasoning as well as making decisions on her own side. The supervisee's knowledge and proposed ideas of academic issues will eventually be evaluated by supervisors during the supervisory talks.

In alliance with social constructionists (e.g., Copeland, et al, 2011; Philp, Guy & Lowe, 2007), the supervisors obviously gave space and opportunities for the supervisee to negotiate about "knowledge" on research. Through negotiations, the supervisee learned to think critically and find reasons to convince the supervisors, through this process, knowledge is constructed because the supervisee will 'bargain' and 'find her ways to persuade' her supervisors. In response, the supervisors will also accommodate the supervisee in case his/her knowledge or thinking is not sufficient. Therefrom, knowledge is constructed through supervisory dialogues. In terms of power manifestation, findings clearly prove Foucault's power as a relation and confirm Schulze's (2012) appeal that the supervisor's task is to cultivate critical learners and encourage creative thinkers to pursue their self-development and empowerment.

To summarise, the two concepts actually are aligned to each other. If power is relational as proposed by Foucault, knowledge will be naturally constructed because of supervisors' interventions used during supervision, as suggested by Wisker and her colleagues. If the supervisor is extremely powerful, knowledge will be transmitted to the supervisee. The supervisee will passively follow supervisors' suggestions. At that point, negotiation for knowledge construction may not occur.

Conclusion

Overall, this study accentuates the values of both authoritative and facilitative styles of supervisors' interventions empowering learning in the actual doctoral supervisory process. Doctoral learning to be an independent researcher and to know how to undertake research involves gaining both academic knowledge and interpersonal skills. The supervisor-supervisee interaction in a particular supervisory talk doesn't necessarily produce visible or measurable learning results. However, it is through interactions during a supervisory talk that create learning opportunities for supervisors to empower the PhD to speak up her mind, test her knowledge, and reflect on her problems and ideas. Reciprocally, both supervisors, especially novice supervisors, can also benefit from such a

process to stretch their supervisory strategies as well as expand their own academic capacity. Once the supervisee feels empowered, she becomes more proactive than reactive during talking process. It is believed that when power is used positively and constructively, it helps let the individual's power out and empowers learning through interactions with the guidance of more knowledgeable from others and oneself. Put another way, if we agree that knowledge is power, conversely, we need to expect that power contributes to the construction of knowledge. When knowledge derives from positive use of power, empowerment plays itself out naturally.

To summarise, this study sheds some lights on actual PhD pedagogic processes with empirical evidence of how supervisory talks empower the PhD student to proactively and reactively voice her mind, negotiate meaning and learn to make decisions upon supervisors' authoritative and facilitative interventions. Evidently, the rule of thumb in supervisory practice is that supervisors, as more knowledgeable and experienced researchers, may still play instrumental roles as guides for students to navigate in the foggy sea of knowledge. However, their roles shall be somewhat dynamic and flexible instead of being static and fixed along the supervisory processes, in order to empower the PhD student to become an independent researcher. Since this qualitative case study is exploring supervisory interactions in an international doctoral program of applied linguistics in an Asian context, similar studies from other disciplines in Western or multicultural contexts are of equal significance in understanding PhD pedagogy. Hopefully, this study adds to doctoral pedagogy with idiosyncratic practice and empirical evidence. Thereby, it invites future interested researchers' interpretations of their context-specific supervisory practice. Answering to Jones' (2013) call, further efforts need to be made to fully explore teaching and learning as it is an important but the least discussed issue in doctoral studies.

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Appendix A: Supervisor's intervention

Styles	Definitions	Acts/descriptors
Author- itative	Prescriptive Giving suggestion and direction	Realised by a statement, mostly in forms of <i>suggesting</i> marked by using second person pronoun or collective pronoun with modal verbs like 'you/we can...', 'you/we should...', 'you/we need to...'
	Informative Imparting academic knowledge and non-academic knowledge	Realised by statements providing expertise knowledge such as <i>defining, explaining, exemplifying, elaborating, clarifying, and summarising</i> .
	Evaluative Making evaluation on a proposed idea/plan or an employed method or student's performance/ progress	Realised by statements with intonations of <i>analysing, justifying, validating</i> and <i>invalidating</i> mostly stated with closed items like 'yes', 'good', 'It's fine...this is what I hope you can do...', 'it's problematic because ', etc. normally followed with evaluative comments or justifications.
Facili- tative	Catalytic Stimulating students to reflect, and learn to be self-directed in solving problems and making decisions.	Realised mostly by eliciting in forms of questions and sometimes with rising-tone statements such as <i>checking progress/plan; eliciting background information; testing conceptual knowledge; testing methodological knowledge; eliciting opinions/solutions; eliciting elaboration, or eliciting clarifications</i> .
	Confron- tative Challenging student's stereotyped view or behaviour	Realised questions or statements in form of <i>challenging</i> , e.g., 'I don't know', 'it's up to you', and 'what do you want to do'. It usually happens upon a decision-making point.
	Cathartic Helping students to express emotions relieve tension or build up confidence.	Realised by questions or statements such as <i>tension-relieving</i> and <i>encouraging</i> , e.g., 'Are you healthy then? Are you ok?', 'So... do you still feel happy about it? Or you are still worried about it.'

Developed from Heron (1975); Wisker et al. (2003); Wisker (2012)

Appendix B: Student's behaviour

Styles	Definitions	Acts/descriptors
Proactive	The student actively reflects on problems and initiatively proposes ideas and solutions.	<ul style="list-style-type: none"> ▪ Self-monitoring: Realised by <i>reporting progress, showing awareness of noticed problems/difficulties, giving opinions, or proposing solutions</i> through self-reflection or self-evaluation. ▪ Asking: The act of asking supervisors questions in order to gain information or ascertain his/her opinion/knowledge of some topics by <i>seeking for conceptual knowledge; seeking for methodological advice; seeking for opinion; seeking for confirmation; seeking for elaboration or clarification</i>. Realised mostly by a question or sometimes by a statement or with a rising tone. ▪ Negotiating: Student expresses different ideas or opinions upon supervisor's suggestions or overtly disagrees with his/her supervisor. Realised by a statement or closed items, such as 'I cannot do it', 'It doesn't work for me', 'I don't think so') upon supervisor's suggestions or opinions to indicate resistance or reluctance. ▪ Telling story: Realised by statements in the form of storytelling about his/her personal or community life.
Reactive	The student responsively but passively answers a supervisor's questions or suggestions.	<ul style="list-style-type: none"> ▪ Answering: The act of replying to statements. The act of reciprocating to what has been asked, including those questions directed specifically to him/her or expressed in an indirect way. <ul style="list-style-type: none"> - <i>Giving simple answer</i>: Student inadequately touches the point of the question. It can be found in forms of closed items like 'uh', 'um' or chuckle 'haha' or a statement but doesn't address to the raised question or just fact-based information without justifications. - <i>Giving complex answer</i>: Upon a supervisor's questions, the student gives elaborations or justifications of their ideas upon supervisor's questions, hints or feedback. ▪ Showing agreement/understanding: Realised by a statement or closed items (e.g., saying 'I will do that', 'yes', 'uh', 'ok') upon supervisor's suggestions or opinions to indicate acceptance or agreement.

Ms Wenwen Tian (corresponding author) is a PhD student majoring in Applied Linguistics at King Mongkut's University of Technology Thonburi, Thailand. Her research interests include discourse analysis and communication strategies.
Email: wwtianpsu@gmail.com, sweet_psu@hotmail.com

Dr Wareesiri Singhasiri is an assistant professor at King Mongkut's University of Technology Thonburi, Thailand. She obtained a PhD in Applied Linguistics from University of Essex, UK. Her research areas include research methodology in ELT, learning strategies, learning styles and self-directed learning.
Email: wareesiri.sin@kmutt.ac.th, wareesiri@yahoo.com
Web: <http://sola.kmutt.ac.th/homesola/?staff=wareesiri-singhasiri>

Please cite as: Tian, W. & Singhasiri, W. (2016). Learning opportunities in PhD supervisory talks: A social constructionist perspective. *Issues in Educational Research*, 26(4), 653-672. <http://www.iier.org.au/iier26/tian.pdf>