Situated Teacher Learning as Externalising and Mobilising Teachers' Tacit

Knowledge through Talk in a Language Teacher Professional Community

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Abstract

This paper reports on a study that looks at the micro processes of teacher learning in a language teacher professional community in China. Following the tradition of ethnomethodology, teacher learning in this paper is conceptualised as interactional accomplishment of negotiation of practice through talk. Based on a purposively selected discourse sample, this paper illustrates the trajectory of how the differences in their understandings of creativity among a small group of language teacher educators (or 'teachers' thereafter) were taken up, talked through and finally resolved (or not). The research demonstrates that teachers' tacit knowledge was distributed among individual members of the professional community where different pedagogical understandings existed. The micro analysis also shows that teachers' talk created a dialogic space for the participants to externalise and mobilise their tacit knowledge for negotiation. Implications are drawn which point to the importance of creating opportunities for teacher collaboration and teacher talk as part of professional development.

Introduction

Research on teacher professional development over the past several decades has identified different ways to facilitate the process of teacher learning. Among them, the professional community of practice model has long been seen as an effective approach, though it is not

without criticisms (Grossman, Wineburg, and Woolworth 2001; Little 2002, 2003, 2012; Watson 2014; Harris, Jones and Huffman in press). As Little (2002) rightly pointed out, although much research has unequivocally acknowledged the role of professional communities in teacher development and school improvement, little is known about how teacher learning is actually enabled in professional communities, particularly from a micro perspective. Little's concern consequently resulted in more than a decade's inquiry into teacher learning from the perspective of workplace interactions (Hurd and Lewis 2011; Lewis, Perry, and Hurd 2009; Liu 2013; Horn and Kane 2015; Horn et al. 2017). A similar line of research in recent years which focuses on lesson study also echoes the idea that 'the central driver of teacher learning within lesson study is interaction within a professional community' (Warwick 2016, 557). Building on this body of work, this paper presents a case study of teacher learning in a teacher professional community and addresses the dynamic relationship between teacher learning and teacher talk from a micro perspective. Methodologically, this paper differs from previous research with its ethnomethodological analysis; its analytical focus is not on establishing correlation between the quality of teacher talk and the outcomes of teacher learning, as often seen in much quantitative research on lesson study, but rather on providing a detailed description of the process of discursive construction of professional knowledge. The paper is empirical as well as methodological. It is based on empirical evidence derived from a large research project; it also provides a methodological example of ethnomethodology (see Garfinkel 1967, Heritage, 2013), a research approach with a long tradition in sociology, but rarely seen in educational research. Implications are drawn which point to the importance of creating opportunities for teacher collaboration and teacher talk in the context of educational reform.

Teacher Learning and Teacher Talk in Professional Communities

The Community of Practice model was proposed by Lave and Wenger (1991) as a social theory of learning and has been successfully applied in teacher education and professional development. The positive role of professional communities in school improvement has also been well documented in the literature (see review Vescio et al. 2008). Over the past several decades, researchers have attempted to identify the conditions and attributes of professional communities that are conducive to teacher learning (Harris et al. 2017; Stoll et al. 2006). Toole and Louis's (2002, 249) work is representative in this endeavour. They identified five interconnected features that characterise 'genuine professional communities', one of which is

meaningful dialogue. The underlying assumption is that teachers, through talking to each other, are afforded the opportunity to scrutinise, discuss and negotiate the differences in their pedagogical understandings, which may lead to 'deep learning' in professional development (Marton and Saljo 1984). As Little (2003, 917) also indicates, 'conditions for improving teaching and learning are strengthened when teachers collectively question ineffective teaching routines, examine new conceptions of teaching and learning, find generative means to acknowledge and respond to difference and conflict, and engage actively in supporting professional growth.'

The relationship between teacher learning and teacher talk is a complex one and researchers have examined this relationship with different approaches. The 'correlational' approach, due to its quantitative focus, is mainly concerned with how teacher learning and teacher talk can be effectively measured and to what extent they are correlated. This approach has gained momentum in recent years, which is evidenced in a burgeoning body of quantitative research on lesson study (see also review by Cheung and Wong 2014). The major contribution of this strand of work is the use of a range of analytical indicators to measure the quality of teacher talk and the outcomes of teacher learning. Through modelling the causal relationship between them, this body of research aims to distinguish between 'good talk' and 'bad talk' which might result in 'deep learning' or 'surface learning' (Marton and Saljo 1984). For example, based on a large-scale lesson study project on mathematics teachers' professional development in London, Vrikki et al. (2017) developed a protocol which measures the content and structure of talk as well as the outcomes and processes of teacher learning. This protocol consists of three dimensions: 'dialogical moves', 'scope of discussion' and 'learning processes'. Based on multi-level statistical modelling, a range of hypotheses on the relationship between teacher talk and teacher learning were tested, providing evidence for 'the differential effects of particular forms of interactions on learning processes' (Vrikki et al. 2017, 211). This outcome-oriented approach also aligns well with the thinking underpinning a number of large-scale European studies in which patterns of teacher learning and student learning are examined through statistical modelling (see Bakkenes et al. 2010; Merink et al. 2010).

In contrast to the analytical interest in 'correlation', the 'sociocultural' approach is interested in the mediating function of teacher talk in teacher learning (Warwick et al. 2016; Dudley 2013; Cajkler et al. 2013). Although this approach might involve some quantitative measures, it is qualitive by nature which aims to develop a nuanced understanding of Vygotsky's sociocultural

theory of mediation, and more specifically how talk mediates thinking. Methodologically, much earlier work in this area has been inspired by Mercer's (2000) sociocultural discourse analysis (SCDS) framework which consists of three categories of talk - cumulative, explorative and argumentative talk. Other researchers following the same approach have developed more sophisticated categories (see also Hennessey et al. 2016). For example, Warwick et al. (2016) identified five 'key' moves in teacher talk including 'questioning', 'building on each other's ideas', 'coming to an agreement', 'providing evidence or reasoning' and 'challenging each other'. In the same vein, Dudley (2013) also identified five types of teacher talk ranging from 'cumulative talk' to 'managing understanding'. All in all, the sociocultural approach is a functional approach by nature. Cumulative talk, according to Warwick et al. (2016), has the strongest mediating effect on learning, as it creates more opportunities for 'interthinking' (Littleton and Mercer 2013). As Mercer, Littleton and Wegerif also note (2004, 137), talk entails 'the use of language as a social mode of thinking - a tool for teaching and learning, constructing knowledge, creating joint understanding and tackling problems collaboratively'.

The third approach, which was championed by Little (2002, 2003) in her seminal work, is concerned with how professional knowledge and practice are represented in teachers' workplace encounters. This 'micro-ethnographic' (Little 2003, 919) approach differs significantly from the previous two approaches. Epistemologically, it follows the tradition of discursive sociology which conceptualises teacher learning as situated practice and has an analytical interest in the process of discursive construction of professional knowledge. The underlying assumption is that professional communities are constitutive of and constituted by interaction. Thus, teachers' learning, as Little (2002, 918) suggests, is 'located' 'in the specific interactions and dynamics by which professional community constitutes a resource for teacher learning and innovations in teaching practice'. This strand of work has broadened the research domain of teacher learning from the traditional classroom setting where the focus is on classroom interaction between teachers and students, to the workplace setting where the focus is on teachers' ordinary mundane interactions among themselves. Methodologically, the micro-ethnographic approach requires the inclusion of fine-grained details of interaction in data analysis. A range of units of analysis has thus been identified in previous research, such as 'problems of practice' (Little 2002, 2003; Horn and Little 2010; Little and Horn 2007) and 'pedagogical reasoning' (Hall and Horn 2012; Horn 2005, 2007; Horn, Kane, and Wilson 2015). These analytical concepts provide concrete ways to understand professional practice as situated interactional achievement.

Following Little's seminal work, this paper also has an analytical interest in the process of discursive construction of professional knowledge through talk. It challenges the traditional understanding of learning as acquisition of knowledge and sees learning as participation in practice. This conceptualisation ties in well with Community of Practice, which is a social theory of social participation itself (Wenger 1998). Despite the same analytical interest, however, ethnomethodology is different from micro-ethnography in two ways. First, much research following the micro-ethnographic approach tends to focus on the 'cultural' aspects of professional communities such as routines, rituals and resources rather than on the trajectory of knowledge mobilisation in interaction. For example, Little's (2002) research outlines three dimensions of interaction, namely 'representation of practice', 'orientation toward practice' and 'norms of interaction'. Her analysis focuses on the way in which semiotic resources, both linguistic and material resources, are organised to accomplish professional routines. In this paper, however, I seek to strengthen the concept of knowledge mobilisation. Drawing upon Polanyi's (1967) classic notion of 'tacit knowledge' (see also Dudley 2013, 107) which is defined as a set of uncodified and inaccessible beliefs, skills and understandings about practice, I examine how teachers' tacit knowledge is mobilised and developed through their workplace encounters. To achieve this aim, a methodology which enables revelation of the micro process of interaction is needed and I argue that ethnomethodology is well suited for this purpose.

Ethnomethodology, or applied conversation analysis, has a long tradition in sociology, but is rarely used in education. Different from pure conversation analysis which is interested in the repeated regularities of conversation, ethnomethodology has a primary interest in the social institutions of discursive practice (Heritage 2013), that is, how people get things done through talk. Earlier works on ethnomethodology focused on people's ordinary social practice while more recent works tend to focus on the production of professional knowledge in institutions such as science labs, courtroom proceedings and counselling services. Analytically, ethnomethodology has two primary concerns. The first concern is what is talked into being in practice and the second how things get done through talk (Heritage 2013). From this perspective, ethnomethodology is a genuine 'methodology' of practice, which is perfectly compatible with Community of Practice as a genuine 'theory' of practice. The two analytical foci of ethnomethodology have also informed the research questions of this paper:

RQ 1: How is teachers' tacit knowledge mobilised and developed through their workplace

encounters in the professional community?

RQ 2: What interactional organisations underpin the trajectory of this development?

Methods

The Context of Reform and Participants

The research reported in this paper constitutes part of a larger project on teacher learning in professional communities in China. The fieldwork took place over a period of 12 months in a newly established English teacher education department within a university responsible for training secondary school English teachers in the region. At the time when the fieldwork was conducted, a university-wide reform was well under way which aimed to improve the quality of teaching through a more liberal curriculum, focusing on creativity and collaboration. As a newly established unit in the university, the department was keen to bring in foreign experts to lead the curricular reform. In light of this, an innovative course called 'Critical Thinking and Creative Learning' was created, which was staffed by a senior foreign expert (Richard) and three local teacher educators (Feng, Min and Qin) or 'teachers' thereafter. Richard had more than forty years of teaching and training experience while the three local educators were at different stages of their career. The course spanned two terms, lasting 16 weeks each. Its main goal was to help student teachers to develop an enriched understanding of creativity, which, within the context of reform in the university, can be defined as 'creative pedagogies' (Jones 2016, 16), that is, 'creativity as a means to make language lessons more engaging, to make learners more motivated to use the target language, and to make teachers more effective at teaching it'. Many of these creative pedagogies involved using music, drama and literary texts in language teaching, but as these pedagogies were very different from the traditional grammar-based teaching, they were inevitably met with resistance. To resolve this problem, various collaborative activities were organised, including teachers' group meetings held every other Monday afternoon on which this paper focuses. The purpose of these meetings was to provide a mutual space for the staff members to negotiate the differences in their pedagogical understandings through talking to each other.

Data Collection and Analysis

Initial consent was obtained from the head of the Faculty while the consent form was signed by the participating teachers individually. My role in the research process was discussed openly in our first meeting. It was agreed that I needed to familiarise myself with the local professional practice such as marking, preparing ppts and lesson planning. I was fully aware of the ethnomethodological requirement to acquire 'members' methods' (ten Have 2004, 20), but I was confident that I was able to fulfil it thanks to my previous experience in a similar role for six years. It was also agreed after consultation with the participants that it was more appropriate and ethical for me to take a peripheral role in the meetings as a non-participant observer which would enable me to document the natural dynamics of the group. Rapport was established over time. When I embarked on data collection in the second term, I had already enjoyed the privilege of being a trustful member of the professional community. A total of eight meetings were recorded, generating a corpus of 606 minutes of recordings. Each meeting was based on a core theme related to different creative pedagogies, such as using drama, music, story and game in language teaching. The data were considered of good quality as the discussion was generally focused involving a lot of debate on conceptual as well as practical issues. Ethnomethodology requires a principled approach to data analysis in terms of selecting, analysing and presenting appropriate discourse samples. This process was guided by two broad principles.

The principle of selecting discourse samples for analysis: identifying a lengthy excerpt with an embedded narrative

The first principle is concerned with how to select discourse samples for ethnomethodological analysis. In light of the research questions, the discourse samples selected need to reveal the moment-to-moment unfolding of the trajectory of knowledge mobilisation. This entails that multiple short extracts, which are often seen in pure conversation analysis and other forms of discourse analysis, might not be suitable for this purpose. Instead, a longer excerpt with an embedded 'narrative' revealing what has been talked into being is more suitable. Richards (2006, 12) discusses the difference between drawing on longer and shorter discourse samples and suggests that 'researchers must somehow establish a working compromise between a desire to draw general conclusions and the responsibility to do justice to the particular.' As the main purpose of this paper was not to generalise the repeated regularities of teachers' workplace encounters but to understand the 'orderliness and sequentiality' (Mondada 2011, 543) of how the narrative of knowledge mobilisation was developed in interaction, a longer excerpt was

deemed suitable given the limited space of the paper. In line with this broad principle, the first level of data analysis mainly focused on identifying the relatively longer episodes involving focused discussion of various aspects of creative pedagogies. A total of 67 core episodes were identified in the first instance, each lasting between 1 and 15 minutes. Further analysis revealed two broad patterns of interaction. The first pattern (8 episodes) featured a situation where the members participated relatively equally and tended to agree with each other. These episodes, however, were quite short and small in number. The second pattern (59 episodes) was characterised by intense discussion and negotiation. These episodes, varying from 1 or 15 mins, typically featured a situation where the foreign expert Richard intended to seek agreement among colleagues on how to implement creative pedagogies. It is this second pattern that forms the focus of this paper.

The episode on which this paper is based was selected from a teachers' group meeting in Week 3 which focused on the topic of music and creativity. The meeting lasted for 55 minutes and the episode presented in the analysis took place towards the end of the meeting. The episode was chosen because it was sufficiently long and involved an intense debate about the participants' differing principles and goals in planning classroom activities. Moreover, as discussion of the same issue regarding how to foster creativity had spanned several weeks, the intensity of interaction gradually built up to a very engaging situation as seen in this episode. The decision to select a later episode towards the end of the meeting was also considered more appropriate as it provided a more contextualised understanding of the issues involved.

The principle of analysing and presenting discourse samples: explicating but not explaining through 'unmotivated looking'

The second principle is concerned with how the data should be analysed, organised and presented. Ethnomethodology is a unique approach which has its own methodological agenda. As Koskinen (2017, 171) explains, ethnomethodology focuses on 'explication, not explanation'. Typically, papers following the discourse analysis tradition tend to draw on multiple but short extracts of interaction, each of which is accompanied by an account explaining what might go through the mind of the participants in interaction. In ethnomethodology, however, the analysis is done through 'unmotivated looking', that is, 'an examination of the data in terms of the actions that are being performed there.' (Liddicott 2011, 71). This principle has important implications for data presentation in this paper, as the analysis

does not seek to go beyond description of the discourse itself in order to understand the thinking that underpins it, but focuses rather on a very detailed and thick description of how interaction is organised and what is being accomplished in this process (Arminen 2016).

Ten Have (2011) recommends a staged approach to unmotivated looking which focuses on three interactional organisations: turn-taking, sequence of organisation and repairs. In a natural conversation, people usually take turns to speak. Violation of this rule may result in communication breakdown in the form of talking over each other (i.e. overlapping speech), as often seen in intense debate, or silence, as often seen in embarrassing moments. To fix this problem and get the conversation restarted, a range of discourse strategies can be used, the most effective of which is 'repair' where the interactants try to adapt to each other in order to fix the problem and keep the conversation going. All these happen in a fleeting and transient manner and ten Have (2011) suggests that the dynamics of conversation are best examined from the lens of 'sequence of organisation', that is, through examining how the turns next to each other (i.e. adjacency pairs) are organised in a conversation.

This staged approach to data analysis comprised three specific procedures. First, the data were transcribed in detail following the narrow approach to transcription (see Appendix, ten Have 2007, 215-216). I then examined the overall structural organisation of the selected discourse sample, which involved dividing the long text into action-oriented sections. This was followed by a fine-grained analysis of the interaction, i.e. the structuring of different organisations of interaction, such as turn taking, sequence of organisation, repair, turn design and so on. It is worth noting that given the limited scope of the paper which seeks to identify the theory building potential based on particularities of practice rather than on regularities of interaction, the temporal dimension of knowledge mobilisation spanning a longer period of time across multiple meetings will be dealt with in a separate paper with a view to making broader generalisations of teacher learning.

Findings

Within the context of reform in the university, there was a strong desire to fully implement a liberal curriculum featuring creativity and collaboration. This university-wide policy received strong support at the faculty level and was consequently translated into departmental guides for teaching and learning. In light of this policy, discussion surrounding creative pedagogies

was often seen at both formal and informal meetings in the department where diverse views existed. The foreign expert Richard who led the reform was delegated the task to promote a strong view of the liberal curriculum and to harmonise teachers' voices. It is within this context that teachers' weekly group meetings were organised which were intended to address the diverse and sometimes opposing views on creativity and creative teaching. Thus, the interaction within the group can be conceptualised as discursive negotiation of practice, as represented in Figure 1.

Figure 1 A conceptualisation of teachers' discursive negotiation of practice
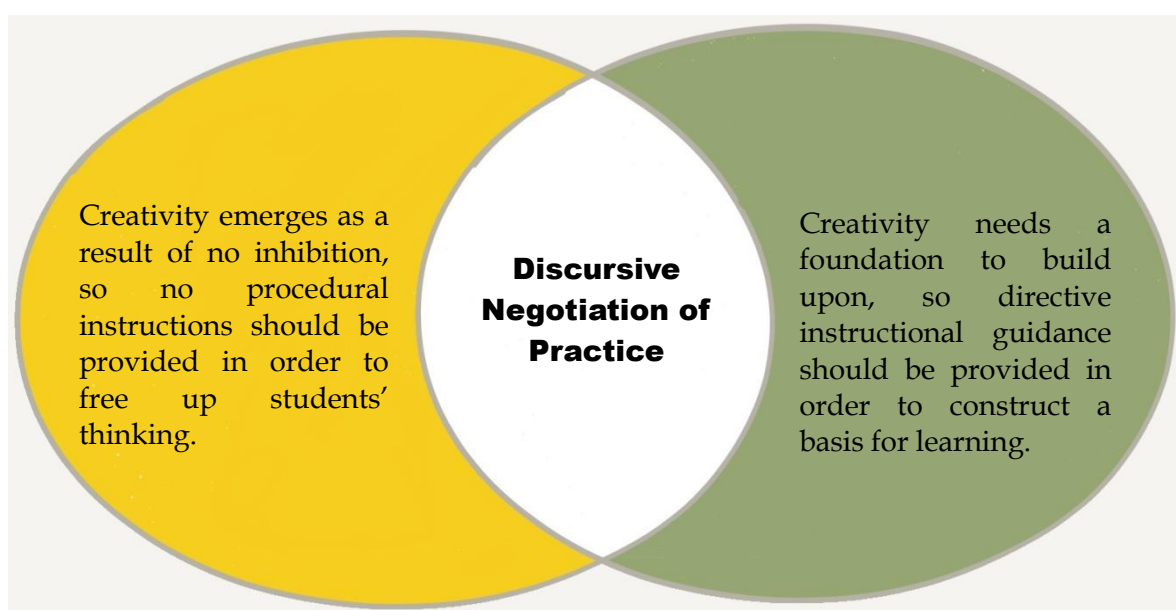
Prologue: Diverse Voices in a Diverse Community

The comments below made by members of the professional community illustrate the diverse voices on the ground which contextualise the analysis of the selected episode and enable alternative interpretations of the analysis later on.

'As we have talked about this programme, every time we raised the bar, these kids exceeded it. Once you open their mind to some new idea, they can think about the idea and an amazingly creative new idea. That is an extension you know … But on the other hand, a lot of teachers don't like giving up the stage; a lot of our teachers are not comfortable with sharing the stage. And certainly there are enough students around who

are also uncomfortable with that. I am not only interested in the change in their thinking, but more importantly the process of change and the way they react to different ideas' (Richard, Interview)

'The students started to ask in their journals: "what actually did I learn?" They did not seem to understand the point of doing so many dramas and 'noisy' activities. Confronted with this question, I, at one time, did not know how to reply, because I myself had been pursuing the answer to the question as the students did. I was not clear about what teaching or learning objectives we would achieve. The most popular 'pet phrase' of the students now is 'get out of the box', which means 'to think differently'. I wondered how far we could get out of the box by such training.' (Qin, Diary)

Richard seemed to be aware of the resistance among his local colleagues, but the diverse voices were mainly situated in private spaces (e.g. diaries, teaching plans and personal communication). We could therefore argue that teachers' knowledge of practice was still tacit and implicit which needed to be externalised and made transparent while Richard was keen to enable this process through creating opportunities for discussion and debate. This process is indeed very complex. As ethnomethodologists would argue, every moment can afford an opportunity for learning, yet every moment is different and peculiar. The selected episode, though short, crystalises the particularity of the moment-by-moment process of externalisation of teacher knowledge. It by no means seeks to demonstrate the typicality of interaction in the professional community, but rather to exemplify the potential of transient moments in revealing the 'microgenesis of learning' (Thibault & King, 2016: 1).

Four participants (Richard, Min, Feng and myself as the researcher) attended the group meeting in Week 3 while the interaction in the selected episode was mainly between the foreign expert, Richard, and the local educator, Min. The intense debate arose from Richard's and Min's differing understandings of how to stimulate creativity in the teaching process. More specifically, Richard preferred an individual approach and suggested that the individual's experience was essential in the creative process. He was concerned that teachers' instruction could weaken the individual's experience of creativity. Min, however, would prefer a collective approach. She was very concerned that not everybody could survive being thrown in at the deep end of creative learning. A basic foundation was felt needed so that everybody was ensured a certain degree of success.

The findings are presented in four sections below, each focusing on a specific goal-oriented action. The process of interaction within each section is examined through detailed analysis of the interplay of various organisations of interaction.

Richard Elicits Min's Position

In this episode, Richard was keen to agree a teaching plan to be implemented in the following week. In the first section of the episode, Richard aimed to elicit Min's general position regarding how to implement creative pedagogies and attempted to use two strategies to achieve this. He first started with a straight question ('what are you going to do tomorrow?'), which was explicitly directed at Min.

1	R:	So <what are you going to do> tomorrow? Tell us, so that we know what to do.
2	M:	Let them do. I will do ↑<u>nothing</u>. I just ↑<u>wait</u> and ↑<u>watch</u>. Enjoy the performance.
3		I do ↑<u>nothing</u>.

Min fulfilled her obligation to speak in line 2-3 and her answer seemed to match well with Richard's 'frame' (Goffman 1974) for an aligning answer. However, Min's heightened and dramatic tone with which she completed her turn were easily recognisable. The intonation of the words 'nothing', 'wait' and 'watch' featured a raised volume and a high pitch, indicating that her answer might have been just a symbolic gesture of alignment, signalling disagreement later on.

In complementing this strategy, Richard used a less direct strategy in line 4 and asked Min to comment on a simulated situation.

4	R:	You just, <you are going to walk> in the classroom and you are going to say=
5	M:	=Are you ready? =
6	R:	= I am Min, I am not going to do anything? (2.0)
7	M:	Are you ready? °They say ready °. Ok.
8	R:	They are going to say, 'What do we have to do?' What are you going to say to
9		them? Some of the students will say, 'Min, what are we supposed to do?'=
10	M:	=Well, there will be some procedures, [first of all,
11	R:	[↓O::, there we go!=

12　M:　　=I will invite each group, ok. Eh they are going to choose one, one student. I

13　　　　　think (it is better to sing) the (pre-selected) song a little bit.

14　R:　　Now you are putting them back inside the box.

It could well be that Richard had sensed Min's passive rejection in the previous sequence, so he had to draw on the simulated scenario ('you are going to walk in the classroom') to contextualise the problem. This indirect elicitation strategy seemed to be quite successful. As can be seen in the adjacency pairs above, in all first pair parts (lines 4, 6, 8-9, 11), Richard simulated a classroom situation, and through questioning, he urged Min to elaborate on how she was going to keep her promise to 'let them do'. In the second parts of the adjacency pairs (lines 5, 7, 10, 12-13), we can clearly see that Min gradually revealed her true position. For example, Min's first answer in 5 shows that she still spoke in line with Richard's position without hesitation, as indicated by the overlapping speech. However, she paused before giving her second answer in line 7, which indicates that she was hesitant about making her position explicit. Finally, in her third response in 10, she took over the conversation straightaway after Richard's turn and her answers in 10 and 12-13 clearly show that she was keen to reveal her position in the talk. In this short sequence, what seemed to be underlining Richard's action was his belief that Min's position still differed from his. So when Min suggested that she would instruct the students to form groups and sing the pre-selected song, there was a note of satisfaction in his overlapping turn in 11. This utterance was marked by a lengthened 'O::::' and a dramatically falling tone, as if he had anticipated Min's disagreement at the end.

In this section, it is clear that Richard's main goal was to elicit Min's general position on creative language teaching. The analysis also shows that their difference mainly lay in their differing views on whether procedural instructions facilitate or inhibit creativity. Min felt that a controlled process was needed and suggested that she would ask the students to form small groups, nominate a student and then 'sing a little' the pre-selected song. For Richard, however, it was precisely the procedural instructions that worried him. He was concerned that the instructions might 'put them (the students) back inside the box', hence stifling their creativity.

Richard Assesses Min's Knowledge Base for Providing Procedural Instructions

Between turns 16 and 40, Richard's main goal was to find out the reason why Min wanted to provide procedural instructions to the students. From 16 onwards, the debate became

increasingly intense. This long sequence is characterised by small turns, frequent turn-taking, overlapping speech and constant repairs, all indicating the intensity of the debate. The conversation in general did not flow smoothly.. To continue the conversation, therefore, both Richard and Min had to take the initiative to fix the problems. The following sequence provides a good example of repair:

15   M: Eh, sing the song is, [I think
16   R: [Why do you have to do that?
17   M: = is amusing, is more amusing.
18   R: ↑<u>WHY</u>?
19   M: ↑<u>WHY</u>? Let them know what kind of song they want to change (and to work on).

As can be seen in this sequence, the turn-taking norm was broken by Min and Richard's overlapping speech in 15 and 16. The talk returned to normal in 17, but became problematic again in the last pair of speech. When Richard asked 'why?' in 18 in a raised voice and high pitch, Min reciprocated with an emphatic 'why' in 19. Min's answer suggests that Richard's question was a problem which required repair, but she fixed the problem by herself in the same turn..

Another type of repair was initiated by others but completed by self which is illustrated in the sequence between 20 and 23:

20   R: ↑Why do you have to do that?
21   M: ↑Why <u>NOT</u> I don't do that?
22   R: Because you are <inhibiting the creativity>. You are telling them now you have
23   [a certain expectation.
24   M: [To (decide) the melody, you need to know (which) melody first.
25   R: Ok=

In line 20 Richard asked a question directed at Min. However, Min did not answer the question straightaway, as she seemed to find the question problematic and inserted a counter question in 21 ('why <u>NOT</u> I don't do that?') instead. The insertion of a negative tag was very powerful syntactically and emphatically, so much so that it changed the trajectory of the talk and Richard had to fix the talk by himself.

Goodwin and Goodwin (2001) note that with intensified emotion overlapping speech becomes

more common. This is evidenced in the severely overlapping turns between 26 and 32.

26 M: = Yes, [creativity also needs some base.

27 R: [What if we have already

28 M: [We have to build up the base first.

29 R: [My group, my group knows the melody.

30 M: Pardon?

31 R: My group knows the melody already. [They know the song

32 M: [The other groups don't know.

33 R: Ok, do we have to wait for the other groups?

34 M: I mean I will let one student from each group sing a little bit part of the song. =

35 R: = ↑WHY?=

36 M: = ↑WHY? They have to know where to build up their own music and song. It does

37 [not come from nowhere.

38 R: [You mean.

39 M: [Because I said it must be a Chinese traditional, not traditional, must be typical

40 Chinese melody or song.

41 R: Ok.

The overlapping turns between 26 and 29 do not show much meaningful talking. Richard and Min did not seem to listen to each other attentively, but rather talked over each other. This obviously violated the cooperative principle in talk, which thus required repair. Min first initiated a repair request in 30 with an initiator ('pardon?'). Although Richard completed the repair work in 31, they started to talk over each other again from 32 onwards and the negotiation was very intense.

In this section, Richard's main goal was to understand Min's rationale for providing procedural instructions and their difference mainly lay in their different understandings of the nature of creativity. Richard seemed to perceive creativity as unhindered emergent thinking. He argued that the very act of asking students to start with the pre-selected song might create a 'frame' of expectation which could 'block off' opportunities for creativity to emerge. In comparison, however, Min's interpretation of creativity seemed to be more task-oriented, which implied a process of making progressive change to existing thinking, for example improvising a new song based on rehearsal of the prepared song. She was very concerned that the students might not be able to complete the task without instructions and was therefore keen to lay a basic foundation for the whole class to 'build up' creativity.

Richard Makes the First Attempt to Persuade Min to Change her Position

In this section, Richard's main goal was to persuade Min to change her general position regarding how to implement creative pedagogies. To achieve this, Richard first asked Min to comment on whether she would allow the students to abandon the pre-determined plan if they wished to do so. The point that he wanted to make here was that 'to discard the (pre-selected) song' (lines 45-46) and 'create a (new improvised) song' (lines 50-51) could well be one of the possibilities that the students might want to pursue. If Min instructed each group to follow the fixed plan, the students might lose the opportunity to explore other possibilities and this would consequently inhibit their creativity. Nevertheless, Min did not seem to fully understand Richard's use of the word 'discard' in turn 46.

42	M:	Because if it is just a melody, it is not so challenging, but it is a song.
43		Maybe they have to try harder to break this block, to break this limit.
44		It is more challenging, so that is why I said it is a song, not a melody.
45	R:	But what if they just want to use the melody? What if they just want to
46		discard the song?
47	M:	↑Discard song?
48	R:	Throw it away. They don't want to use anything to do with the lyrics. =
49	M:	= They create their own song, their own melody, and their own? =
50	R:	= Right, yeah, right. Let's say. We don't like any Chinese song. We are going to
51		create a song that sounds Chinese.
52	M:	Ok, Ahhhhh (3.0)

In this sequence, Min seemed to find the word 'discard' problematic and thus initiated a request in 47 with a rising tone ('↑Discard song?'). Richard paraphrased the word 'discard' in 48 ('Throw it away'), but his response did not seem to satisfy Min who then initiated a second repair request in 49. In response to this request, Richard provided a second repair in 50, which was finally approved by Min, as indicated by 'Ok' in 52. In spite of the fact that the meaning of 'discard' was clarified, Min did not seem to be willing to change her position. The three-second gap following 'Ahhhhh' in 52 suggests that neither Min nor Richard intended to resume talking. Richard finally broke the silence in 53, but the conversation went back to the 'default' mode of interaction, with Richard occupying the first part of the adjacency pairs and Min the second part.

53	R:	Can they do that in your class?
54	M:	↑Yes, but [what is the base?
55	R:	[But, is that ok?
56	M:	↑You spare everything from this base. This is something we have talked about.
57		We want to start from this point. Not to change the whole base. That is another
58		story.
59	R:	Ok. Which are you doing? [Are you going to ask them to start from the same
60		base or are you changing the whole base?
61	M:	[(I will let them) I will let them choose the
62		song. No, I don't change (the base). I mean the base. <I will let them sing a bit to remind
63		which song they want to change>. And they come to their groups, and they
64		write their new, [CREATE their own songs based on their Chinese song.

In this sequence, Richard used three questions (53, 55, 59-60) in his turns to strengthen his position, with the intention of scaffolding an agreeable answer from Min. Yet, Min was keen to project a more authoritative voice. For example, in 54 Min first gave an agreeable answer 'yes', but immediately reverted back to her own position, marked by a 'but' and a counter question ('what is the base?'). Min's powerful speech style required Richard to speak within her 'production format of utterance' (Goffman 1981, 128). Interestingly, Richard overturned Min's speakership in 55 by repeating the question 'But, is that ok?' It is apparent that neither Richard nor Min wanted to compromise and the conversation thus became increasingly intense, as shown in Min's emphatic answer in 56-58 and her emphasis of 'CREATE'. Further evidence of the intensity of the talk can be seen in the overlapping turns between 59 and 64 where both sought to clarify their position. Nonetheless, the communication had already broken down, so in 65 Richard had to repair the conversation by saying 'So, let me, just want to be clear about it'. Here he attempted to use the 'recontextualisation strategy' (Cazden 2001) to rebuild the basis in order to continue the conversation.

65	R:	[So, let me, just want to be clear about it. So you are saying,
66		when the class starts…
67	M:	Ahah.
68	R:	One member from each group at the beginning of your class will get up and
69		sing a bit.
70	M:	Yeah.

From 65 to 70 the conversation seemed to have gone back to normal and every point recycled and made by Richard was approved by Min, as indicated by the acknowledgment tokens

('ahah', 'yeah'). However, the long chain of questions and answers in this section clearly shows that disagreement between Richard and Min still existed and the conversation fell back to the default mode of interaction again, with Richard occupying the first pair parts in 71, 73, and 75 and Min the second pair parts in 72, 74 and 76-77.

71 R: ↑WHY? (2.0)
72 M: To tell which song you want to change. =
73 R: = To tell who?
74 M: The students. The other students because =
75 R: = But isn't that going to take 10 to15 minutes of your class time?
76 M: They are going to warm up and also give them some ideas of which song they
77   want to change.

In this section, it is clear that Richard's attempt to persuade Min to change her position was not successful. It is also clear that the difference between them still existed, which was manifest in their different understandings of the approaches to stimulating creativity.

Richard Changes his Approach to Persuade Min but with no Success

In the previous section, Richard attempted to change Min's position through probing whether she would allow the students to improvise ideas rather than strictly follow pre-determined plans. However, this strategy seemed to be unsuccessful. Therefore, in 78-80 and 83-85 Richard decided to change his approach by clearly expressing his preference with a final push to change Min's view.

78 R: Ok, well. You can try that. I like the first idea better, which is just, 'well, here is the
79   song, now go, meet your group, and come back, and 20 minutes or 30 minutes or
80   something.'
81 M: You mean, to show (create) the new product without showing (using) the old
82   product?
83 R: I wouldn't give them any input at all (2.0). I wouldn't say <you are going to get
84   up> and show us the song because one thing that might surprise it might well
85   surprise.
86 M: I don't guess whether you can (.) find the =
87 R: = Yeah, yeah, I don't know why you want to put a frame around them (2.0).

As can be seen above, Richard's second attempt was again not successful, which caused some

embarrassment, as indicated by the two-second pause in 87. The embarrassment, however, was mediated by Feng's self-selected intervention in 88, in her capacity as Head of the department. It is clear that her intervention was actually a face-saving action which benefited both Richard and Min. Her suggestion of using Cantonese operas to replace songs was a compromised solution. As many students might be familiar with the melody, Cantonese operas could provide a basis for them to improvise new songs and at the same time ensure sufficient freedom for them to engage in the creative process. Her suggestion was then followed by interrupted laughter in multiple turns between 89 and 95. These could be seen as temporary gap fillers used to avoid embarrassment and to escape 'the straightjacket of business talk' (Holmes and Marra 2002, 1697).

88	F:	Ah, ah, actually, I am going to give them examples. The Cantonese opera =
89	R:	[((loud laughter)).
90	M:	[((loud laughter)).
91	F:	[((laughter)) I will show them how creative =
92	R:	= Steven ((the researcher)) and Amy ((the assistant)) have to come to your class.
93	M:	[((loud laughter))
94	R:	[((loud laughter))
95	S:	[((loud laughter))
96	F:	Eh, well, if they like.
97	All:	((Loud laughter)).

It is clear from above that the differences between Richard and Min still existed, which were meant to be negotiated through talk. Yet, in this last section, there was little discussion of the substantial issues surrounding creativity, except that Richard made it clear that he would not want to create a frame around the students and that Feng made a compromise suggestion to resolve their differences. The conversation finally concluded with interrupted laughter and no agreement or consensus seemed to be achieved in the end.

Epilogue: Learning together and from each other

The meeting ended with no agreement, but teachers' learning continued beyond it. In the follow-up interviews, members of the community expressed their appreciation for having the opportunity to talk to each other and learn from each other. The following comments made by Richard and Min exemplify their learning curves.

'I thought I was wandering around with my camera one day and began shooting pictures on the lawn behind the teaching building, then there they were. You know. All by themselves talking to trees, talking to walls, talking to the air. It was all very isolating. This is a real cultural artefact. How can I change that? So first I tried a very direct western way. I said, "Look, you should try and talk to each other. Come and look at each other.' I actually asked the students to sit together and they thought I was a bit strange I guess, a little startled, but they started to introduce to each other and felt like friends. But by the end of the year, I realised that this approach is not going to work. I can't bump heads together and get them study together. … So, in some ways I am trying now to make numerous small changes without directly challenging their philosophical stance and belief system, because the people here are obvious successes.' (Richard, Interview)

'I might not have agreed with what Richard said in the meetings, but I have gradually found my way through it. I am now really impressed by the idea of critical thinking and creative learning. As Richard himself said, the reason to develop this course was that he noticed that Chinese students are very creative and critical, but this ability is suppressed by an environment of dogmatism and strong control. He wanted to help the students rediscover the inherent potential in them and maximise and strengthen it. Richard emphasises that it does not matter in which category you place the questions; the most important thing is to make the students think and examine the questions creatively and analytically. … Although the students might feel frustrated sometimes, maybe we should also be very delighted because giving somebody a headache is perhaps good for his growth.' (Min, Interview)

One could argue that no agreement entails no learning, but an alternative interpretation could be that every moment in the talk affords an opportunity for learning which constitutes the 'microgenesis of learning' (Thibault & King, 2016: 1). More importantly, the very process of talking things through could result in long-term transformational learning. As indicated in Richard's comments, he had learnt that it is important not to directly challenge people's fundamental belief system but to invite them to think and participate. In the same vein, Min believed that to make people think hard could lead to growth and was therefore more willing to think differently and try out new ideas.

Discussion

This paper examines how a small group of teachers in a professional community (in particular Richard and Min) negotiated their practice through talk in a purposively selected discourse sample from a teachers' group meeting. More specifically, the analysis addresses two questions. The first question traces the trajectory of how teachers mobilised their tacit knowledge by examining how the differences in their pedagogical understandings of creativity were taken up and talked through, but finally passed over. The second question further looks at the discourse structure that underpins this trajectory. In the following, I will first discuss the findings of these two questions. This is followed by outlining the implications of the study for teacher development in the context of educational reform.

The Trajectory of Mobilisation of Teachers' Tacit Knowledge: From Distributed Spaces to Shared Spaces

It is clear in the analysis that Richard and Min had differing principles and goals in their planning of classroom activities with regard to creativity. Richard emphasised the individual's experience of creativity and wanted to remove all barriers that might block off opportunities for creativity to emerge. His understanding of creative teaching represents a strong view of a liberal curriculum which was endorsed, supported and promoted by the university and was further translated into departmental guides for teaching and learning. In comparison, Min viewed creativity as a collective process and was keen to construct a whole-class foundation on which everybody had an opportunity to 'build up' their creativity. She clearly drew on her experience in the classroom which was constitutive of her 'personal practical knowledge' (Clandinin 2013). Yet, Min's professional knowledge was in general implicit and inaccessible, as evidenced in her unwillingness to reveal it at the beginning. Polanyi's (1967) classic notion of 'tacit knowledge' effectively describes the nature of this type of knowledge which is defined as a set of implicit beliefs, skills and understandings embodied in the individual and rooted in practice and experience (see also Nishihara et al. 2017). Indeed, teachers' tacit knowledge is never easy to access, so in the context of educational reform in particular, it is crucial to provide opportunities for teachers to externalise it and negotiate it. For this to happen, a clear trajectory of knowledge mobilisation is needed and talk has an important role to play in this process. In her seminal work, Little (2002, 2003) also acknowledged the role of talk in teacher learning and argued that the specific interaction and dynamics in teacher professional communities

constitute the resources in which teacher learning is situated and embodied (see also Hurd and Lewis 2011; Lewis et al. 2009; Liu 2013). A burgeoning body of research on lesson study in recent years further supports this claim (Dudley 2013, Warwick 2016, Vrikki 2017). As Warwick (2016, 557) rightly points out, 'the central driver of teacher learning within lesson study is interaction within a professional community'.

Teachers' group meetings in this study were specifically meant to create a trajectory of knowledge mobilisation. It was hoped that through talking to each other, teachers' tacit knowledge could be made transparent and this seemed to have been achieved with some success. As shown in the analysis, Richard made his tacit knowledge very explicit right from the beginning. For Min, this process was less straightforward, but was still successfully accomplished. This was evidenced in the fact that her tacit knowledge was hidden and inaccessible at the beginning but became explicit and deprivatised in this end, forming a trajectory leading from distributed spaces situated within the individual to shared spaces located in the professional community. Salomon's (1993) influential notion of 'distributed cognition' further theorises this 'deprivatised practice' (Flores 2017, 2). He challenged the traditional understanding of learning as an individual enterprise and argued that 'cognition is distributed among individuals, that knowledge is socially constructed through collaborative efforts to achieve shared objectives in cultural surrounding.' (Salomon 1993, 278). This theorisation has fundamentally changed the way learning is conceptualised and has far-reaching implications for our understanding of teacher learning in context, and in this case, teacher learning in the workplace context. If the argument so far is that for any educational reform to be successful we need to create a clear trajectory of knowledge mobilisation, then teacher professional communities are well placed to achieve this goal. As Wenger, McDermott and Snyder (2002) rightly pointed out, communities of practice need to be 'cultivated', so it would not be inappropriate to say that nurturing a collaborative culture of professional talk is fundamental to cultivating a community of practice for learning, as it can facilitate externalisation of teachers' tacit knowledge, leading from distributed spaces to shared spaces.

The Interaction Order of Talk: Creating a Dialogic Space for Teacher Learning

It is clear that the talk was not an easy ride and the discussion was intense. As shown in the analysis, Min's discourse trajectory was significantly shaped by Richard's structuring moves such as 'eliciting', 'assessing', 'persuading' and 'reaffirming' (Heritage and Clayman 2010).

Throughout the talk, Richard was positioned in the centre of the floor. In the first three sections in particular, the most commonly occurring pattern of interaction observed was the sequence of organisation of adjacency pairs, with Richard occupying the first pair parts and Min the second pair parts. The interplay of different sequential organisations had enabled Richard to reach out to Min and to 'tap' into her tacit knowledge, thus making the first step towards externalising it. Yet, there were also occasions when Min challenged this 'interaction order' (Goffman 1983, 1). For example, the situation changed in the second half of the episode and there were multiple occasions where Min sought to change the original trajectory of the talk by inserting counter questions (e.g. 'why not I don't do that?') or clarification tokens (e.g. 'pardon?'). There were also occasions when the talk became so intense that Richard and Min began to talk over each other and constantly drew on raised volumes, dramatic pitches and agitated tones. Worse still, there were times when they did not even want to continue the conversation, as indicated by the noticeable pauses at the end of the turns. Yet, the conversation did not come to a complete standstill, as both parties conscientiously drew upon conversational strategies to fix the problems, such as using laughter, repair sequences and recontextualisation strategies (ten Have 2007). These twists and turns all contributed to successful elicitation of Min's tacit knowledge in the end which finally accomplished the full trajectory of knowledge mobilisation for both Richard and Min.

Also revealed in the analysis was an asymmetrical 'interaction order' (Goffman 1983, 1), resulting from the unbalanced power dynamic of expert-novice relationships and the interplay of a number of factors such as knowledge, status, experience, authority and even language. Given his senior advisory role in the reform, Richard was clearly placed in a more powerful and privileged position. As a native speaker of English, he also possessed the symbolic power of language in negotiation of professional practice. In comparison, Min and other colleagues were positioned as less powerful. This asymmetrical power dynamic had structured the talk in a particular way which was characterised by Richard's intensive probing. A full analysis of the power relationships in teacher learning is beyond the remit of this paper, as the analytical focus of ethnomethodology is to explicate but not to explain with 'unmotivated looking' (Koskinen 2017, 171). What this paper has focused on is analysing how a 'dialogic space' (Wegerif 2015, 180) was discursively constructed for negotiation of externalised tacit knowledge in a community of practice, even when an asymmetrical interaction structure was observed in the talk. As Wenger (2008) has repeatedly reminded us, communities of practice are not devoid of tensions and conflicts. In fact, it is the differences between members of the community and the

tensions and conflicts arising from them that drive innovations and generate new knowledge.

Conclusion

The research has significant implications for teacher professional development in the context of educational reform. Teachers have different pedagogical assumptions due to varying experiences. Some of these assumptions are privileged as they align with the official discourse of the reform while others might be marginalised and represent the personal discourse that is required to change. Where differences exist, tensions and conflicts are inevitable which, in the context of reform, are usually reified as teachers' resistance to change. For educational reform to succeed, therefore, we need to find effective ways to resolve such differences. The teacher professional community model has long been seen as one of the most effective approaches to achieve this purpose. As Fullan (2005, 16) asserts, 'the secret to success of living companies, complex adaptive systems, learning communities or whatever terms we wish to use, is that they consist of intricate, embedded interaction inside and outside the organisation which converts tacit knowledge to explicit knowledge on an on-going basis.' In the same vein, we can also argue that the secret to success of any educational reform is to create opportunities for teacher collaboration and teacher talk through which the distributed tacit knowledge can be externalised and mobilised for teacher learning and professional development.

The second implication concerns the nature and outcome of teacher talk. The timeframe for implementing reforms is often very tight and teachers are usually required to make changes through short-term teacher development activities. The expectation is that, through talking to each other in these activities, teachers would agree to the expected changes and then implement them in the classroom straightaway. Yet, teacher change takes time and talking might not lead to agreement. As shown in the analysis, Richard's and Min's principles and goals in planning classroom activities differed significantly. Through talking, their tacit knowledge was made transparent, but the negotiation did not necessarily lead to final agreement. The finding has thus raised the question of what teacher talk is meant to achieve. It is beyond the remit of this paper to present the temporal dimension of the research across multiple meetings, but the interview data in the larger project has clearly shown that all the participants valued highly the role of workplace interaction in their learning and professional development. They commented that, although they might not agree with each other, they became more aware of the differences between themselves and others and were more willing to appreciate these differences. In light

of this, educational leaders and managers should be made aware that professional communities, or more specifically, teacher collaborative activities, should not be used as administrative tools to force agreement and rapid change, but should serve as a mediating tool to raise teachers' awareness of differences in their thinking and practice in order to enrich their repertoires for learning and professional development. As Ferguson and Taminiau (2014, 886) note, 'diverse communities proved more likely to yield conflicting knowledge claims in terms of expertise, value consensus and formal position. However, they were also better positioned for enabling mutual learning than communities with a more uniform representation'.

Appendix Transcription conventions

The transcript symbols given below are the ones that are most commonly used in conversation analysis (see ten Have 2007: 215-216).

Sequencing

[A single left bracket indicates the point of overlap onset.

]   A single right bracket indicates the point at which an utterance or utterance-part terminates vis-à-vis another.

=   Equals signs, one at the end of one line and one at the beginning of a next, indicate no 'gap' between the two lines. This is often called latching.

Timed intervals

Numbers in parentheses indicate elapsed time in silence by number of seconds, so (7.1)   is a pause of 7 seconds and one-tenth of a second.

(.)   A dot in parentheses indicates a tiny 'gap' within/between utterances.

Characteristics of speech production

Word   Underscoring indicates some form of stress, in terms of pitch and/or amplitude, an alternative method is to print the stressed part in italics.

::   Colons indicate prolongation of the immediately prior sound. Multiple colons indicate a more prolonged sound.

-       A dash indicates a cut-off.

.   A period indicates a stopping fall in tone.

,   A comma indicates a continuing intonation.

?   A question mark indicates a rising intonation.

↑↓   Arrows indicate marked shift into higher or lower pitch in the utterance-part immediately following the arrow.

◦   Utterances or utterance-parts bracketed by degree signs are relatively quieter than the surrounding talk.

< >   Right/left carets bracketing an utterance or utterance-part indicate speeding up.

·hhh   A dot-prefixed row of hs indicates an inbreath. Without the dot, the hs indicates an outbreath.

w(h)ord A parenthesised h, or a row of hs within a word, indicates breathiness, as in laughter, crying, etc.

WORD   Upper case indicates especially loud sounds.

Transcriber's doubts and comments

( )   Empty parentheses indicate the difficulty to hear what was said.

(word) Parenthesised words are especially dubious hearings

(( ))   Double parentheses contain transcribers' descriptions rather than, or in addition to, transcriptions.

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