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This paper presents a case study that explored and reflected on the relationship between the beliefs and classroom practices of four English as a Second Language (ESL) teachers in a university language school in Canada related to teacher questions. Data gathered consisted of interviews and classroom observations of all four teachers. The findings revealed that although for the most part the teachers implemented their classroom questioning practices in convergence with their stated beliefs, there were some instances of divergence observed for all teachers. Potential factors contributing to the patterns of convergence and divergence are further explored. In addition, this study found that through the reflective process whereby the teachers articulated and reflected on their beliefs about their use of questions, they became more aware of the meaning and impact of these beliefs on their classroom practices.

Keywords: reflective practice; teacher beliefs; teacher questions; ESL teachers; reflective learning

Introduction

There is increasing research evidence in the field of teaching English to speakers of other languages (TESOL) that when language teachers reflect on their beliefs, they can make more informed decisions about their practice because these beliefs have a strong impact on their classroom practices (Basturkmen, 2012; Farrell & Bennis, 2013; Farrell & Ives, 2015; Kuzborska, 2011). As Breen, Hird, Milton, Oliver, and Thwaite (2001, p. 473) have observed, it is these beliefs that 'influence how the teacher orchestrates the interaction between learner, teacher, and subject matter in a particular classroom context with particular resources'. Many recent studies regarding the relationship between teacher beliefs and practices have focused on language acquisition skill areas such as grammar, speaking and reading (Farrell & Bennis, 2013; Farrell & Ives, 2015; Farrell & Lim, 2005; Kuzborska, 2011). However, not many studies have focused on teachers reflecting on their beliefs of the type of questions they ask in the language classroom. It is important for teachers to reflect on the type of questions they ask. In general education research, Forrestal (1990) discovered that almost 60% of the total time a teacher talks in class involves the use of questioning of some sort. In second language acquisition, research has suggested that teacher's use of questions can play an important role in facilitating language acquisition and development since asking questions is the primary method for

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initiating student participation and interaction in the language learning classroom (Brock, 1986; Cazden, 1988; Farrell, 2009; Hall, 1998; Nystrand, 1997). However, not all language teachers are aware of their beliefs or to what extent their beliefs are reflected in their classroom practices (Farrell, 2007). Senior (2006, p. 237) has observed that many teachers 'do not have the inclination to sit down and reflect on the reasons that underlie their classroom decision making'. To date, not much research has been conducted on the beliefs and practices of teacher questions through reflective practice. The study reported on in this paper is one attempt at examining a gap in the literature on reflective practice by outlining and discussing the reflections of four ESL teachers' beliefs about the type of questions they ask in class. By encouraging these four language teachers to reflect on their beliefs about the type of questions they ask, we can then use these articulations as 'a meaningful basis for discussion and reflection on planned aspects of practice' (Basturkmen, 2012, p. 291) and thus compare them to their actual classroom practices.

Reflecting on teacher questions

Teachers have always used questions as an important part of lesson delivery. According to Brualdi (1998, p. 1), the use of teacher questions has 'the potential to facilitate the learning process' and allows for the 'transfer of factual knowledge and conceptual understanding'. Indeed, teacher questions can have several important functions: (1) to maintain active student participation; (2) they allow the sharing of peer interpretation of material; (3) they provide an opportunity for students to express their ideas and thoughts; and (4) they allow teachers to evaluate students' progress and learning (Brualdi, 1998).

Although discourse activities vary according to the context of the classroom and institution, the teacher-led sequence of Initiation-Response-Evaluation (IRE) or recitation script is typical to Western schools and foreign language classrooms (Cazden, 1988; Farrell, 2009; Hall, 1998; Nystrand, 1997). This pattern involves three sequences: (1) the teacher initiates the teacher-student interaction; (2) the student provides a response; and (3) the teacher evaluates or provides feedback to the response (Cazden, 1988). Moreover, a question is usually employed to initiate this sequence of classroom interactions (Cazden, 1988; Farrell, 2009; Hall, 1998; Nystrand, 1997). In addition, in second language classrooms studies have suggested that when a question is asked by the teacher, language learners are provided with an opportunity to practise the target language because they must attempt to answer it (Brock, 1986; Nystrand, 1997).

Furthermore, research has also pointed out that other factors relating to teacher questions, such as question type, can also significantly impact student participation and interaction in the second language classroom. A 'taxonomy of teacher questions' proposed by Ellis (1994) distinguishes between two main types of questions and their sub-categories. The two main types in this taxonomy include *echoic* questions, which seek the repetition of an utterance or the confirmation of information, while *epistemic* questions 'seek information of some sort' (Farrell, 2009, p. 53). Various sub-categories of echoic questions encompass comprehension checks, clarification requests and confirmation checks, while sub-categories of epistemic questions include referential, display, expressive and rhetorical questions.

Table 1. Taxonomy of teacher question types.

1. Echoic	Comprehension checks	All right? OK?
	Clarification requests	What do you mean?
	Confirmation checks	Did you mean …?
2. Epistemic	Referential	Why didn't you do your …?
	Display	What's the opposite of up?
	Expressive	It is interesting, isn't it?
	Rhetorical	Why didn't you do that? Because you …

Note: Adapted from Farrell (2009, p. 54).

Within the epistemic question types in table 1, two main types of questions language teachers often ask are *display* and *referential* questions. Research suggests that display type questions, or questions in which the answer is known to the teacher, can provide an opportunity for students to display their knowledge and understanding (Brock, 1986; Long & Sato, 1983). In contrast, referential questions, or questions in which the learner is required to express their opinion, reasoning or information, are said to promote more genuine communication in the second language classroom (Brock, 1986; Long & Sato, 1983).

Although many such studies have investigated the effects of question types on student participation, interaction and the quality of student responses in L2 classrooms (e.g. David, 2007; Long & Sato, 1983; Shomoossi, 2004), not many studies have investigated teacher questions in relation to their stated beliefs and then compared these to classroom practices, not only in general education studies but also in TESOL (Pham & Hamid, 2013). Furthermore, of the few studies on teacher beliefs and practices on teacher questions, most have only used questionnaires and some interviews to obtain data, yet few have been used in conjunction with classroom observations using reflective practice in a full reflective cycle (e.g. Pham & Hamid, 2013).

In fact, engaging in reflective practice generally means teachers articulating their underlying beliefs about teaching and learning and comparing these to classroom practices to see if there is convergence or divergence (Farrell, 2015). As Stanley (1998, p. 585) has noted, reflective practitioners 'look at their work in order to examine the reasons and beliefs underlying their actions and generate alternative actions for the future'. When engaging in reflective practice, Richards and Lockhart (1994, p. 1) encourage teachers to 'collect data about their teaching, examine their attitudes, beliefs, assumptions, and teaching practices, and use the information obtained as a basis for critical reflection about teaching'. Therefore, teachers exploring practice through reflective practice means that teachers systematically collect data about their teaching and use this information to make informed decisions, and in such a manner teachers can recognize and discontinue practices that are not in the best interests of their students.

Reflecting on teacher beliefs is important because teachers draw on their prior teaching and educational experiences when forming their beliefs (Richards & Rodgers, 2001). Furthermore, teacher beliefs not only serve to guide the individual teacher's thinking and classroom practices, but also shape their pedagogy and the very nature of classroom interactions (Fang, 1996). Thus by reflecting on this complex relationship between teachers' beliefs and practices, insight can be gained about the convergence of divergence of beliefs and practices and how this interaction

facilitates or impedes classroom instruction (Farrell, 2015). As Knezedivc (2001, p. 10) has pointed out, developing such awareness is important because it is the beginning of a 'process of reducing the discrepancy between what we do and what we think we do'. Therefore, the case study presented in this paper is significant in adding to the literature on this important topic because it utilizes the concept of reflective practice, interviews, direct classroom observations and teacher journal writing of their reflections to obtain more detailed information about the teachers' beliefs and practices of teacher questions.

The study
Methodology

This qualitative research was conducted in order to examine the relationship between teacher beliefs and observed classroom practices with regard to teacher questions (Bogden & Bilken, 1982). The study utilized a case study method (Merriam, 1988, 2001) that was exploratory and descriptive in nature (Bogdan & Bilken, 1982). The use of case study methodology was chosen because it best facilitates the construction of detailed, in-depth understanding of what is to be studied (teachers' beliefs and their influences on classroom practices and vice versa), and because case study research can engage with the complexity of real-life events (Stake, 1995; Yin, 1994). Other TESOL scholars have successfully utilized similar case study methods for similar types of research (e.g. Clair, 1998; Farrell, 2007; Tsui, 2003). In addition, the methodology is influenced by an overall conceptual framework of socio-cultural theory where, as Johnson and Golombek (2011, p. 1) have noted, 'human cognition originates in and emerges out of participation in social activities'. In such an approach, this study considers reflecting on teacher beliefs and classroom practices involving a co-construction of knowledge in a specific socio-cultural context that results in, as Johnson (2009, p. 2) suggests, 'the transformation of both the self and the activity'.

Participants

Four ESL teachers teaching in an English for Academic Purposes (EAP) language program at a southern Ontario University volunteered to participate in the study as an opportunity for their professional development. By participating, the teachers were able to explore their teacher beliefs and practices regarding questions in the classroom. There were two novice teachers (less than five years teaching experience) and two experienced teachers (more than five years of teaching experience). The pseudonyms Priscilla, Steve, Molly and Gunther have been assigned to the four participating teachers in this case study in order to maintain anonymity. Priscilla, a female novice ESL teacher, and Steve, a male ESL teacher, both had four years teaching experience. The other two participants possessed more than five years of experience teaching in an ESL context. Molly, a female experienced ESL teacher, had approximately eight years of teaching experience. While, Gunther, a male experienced ESL teacher, had a little over six years of teaching experience.

Context

All four participants were teachers in an EAP language program at a university in southern Ontario. The main objective of this program was to prepare L2 students

from various countries for studies at the university undergraduate level. The students' schedule consisted of five 1-hour classes each day for five days of the week. Each class focused primarily on a specific language skill: listening, reading, writing, speaking and grammar. Priscilla taught an intermediate level listening class. Steve taught an intermediate grammar class. Molly and Gunther taught an advanced intermediate and a high level speaking class, respectively.

Data collection

Data were collected over a four-week period (because of teacher availability). The sources of data used for this study included: one pre-study interview, four 1-hour classroom observations with 15–20 minute pre-lesson and post-lesson interviews, along with a follow-up interview one week after the last observation. Semi-structured interviews were chosen to allow the teachers space to express their beliefs. First, an initial interview was conducted in order to gain insights into the teachers' beliefs about teacher questions. The beliefs stated in this initial interview would be used as the starting point for making comparisons across the different methods of research used. The pre-observation interviews were conducted one hour before the class began and were recorded. The questions related to what the teachers had planned to do in the class for that day. The post-observation interviews were conducted one hour after the class took place, and questions in those interviews were mainly about what had just happened in that class. The final interview was conducted one week after the final observation. This final interview revisited questions from the initial interview (i.e. what are their beliefs about teaching and beliefs about teacher questions?) along with new questions that were designed to further explore various aspects of teacher questions and thus allow for further beliefs to surface. We also conducted a follow-up interview after the data had been analyzed and written up for the teachers' reactions and comments. All interviews were recorded and transcribed.

Four 1-hour classroom observations were also conducted. During the classroom observations, the observer sat at the back of the room where she would not disrupt the students. A tape recorder was used to record the classes observed. The observer took notes to describe the teachers' actions during the classes. The classroom observations formed the basis for discussion with each teacher after each observed class about what they did and why. All classroom observations were recorded and transcribed. In addition, throughout the process all four teachers volunteered to keep a teaching journal where they could express their thoughts about the classes observed and whatever else they wanted to write about during the period of the study.

Data analysis

The case study sought to investigate and answer the following research questions:

(1) What are four ESL teachers' beliefs regarding their use of questions?
(2) What are the four ESL teachers' observed classroom practices regarding their use of questions?

These two research questions guided the collection and analysis of data. When all of the observations and interviews were transcribed, they, along with the

journal writings, were coded and analyzed. In order to ensure the data were reliable, all of the transcripts were coded and analyzed on four separate occasions by the researchers in order to ensure that the codes were consistently identified (Miles & Huberman, 1994). Once it was concluded that all of the categories were concrete, they were compared with the other types of data (classroom observation notes and journal writings) to investigate similarities. This data triangulation was used as a strategy to increase the validity of evaluation and research findings (Mathison, 1988).

Lincoln and Guba (1985) suggest that the technique of 'triangulation' should be used in order to improve the probability that the findings and interpretations will be credible. Stake (1995, p. 114) argues that triangulation can be achieved with 'multiple approaches within a single study'. Thus, we collected data by audio recordings (later transcribed) of each interview and classroom observation (later transcribed), and we also wrote extensive field notes (which were later written-up in a more detailed reflective journal) during each event. After each event, such as an interview or classroom observation, we consulted my notes of the event before writing up a detailed reflective journal. Thus during data analysis of all evidence was compared and cross-checked with other types of evidence. Before terminating data analysis, various study member checks were performed whenever possible to elicit feedback from the teachers on the appropriateness of the analysis and interpretations presented in the findings below (Lincoln & Guba, 1985; Miles & Huberman, 1984).

Findings

The findings are reported as answers to the main research questions.

1. *What are four ESL teachers' beliefs regarding their use of questions?*

Each teacher's stated beliefs are reported in Table 2. Each participant's beliefs have been divided into two categories: beliefs about questions, and beliefs about questioning practices in the classroom.

As indicated by Table 2, many beliefs regarding questions and questioning practices were common to all the teachers in this case study. However, certain beliefs were stated only by particular teachers. For example, Steve, the novice grammar teacher, was the only teacher to indicate that he frequently used questions that allowed students to display their knowledge. In comparison, the three other teachers said that they preferred to ask higher order questions that required students to express their opinion, reason or provide information. Similarly, Molly, the experienced speaking teacher, was the only one to indicate that it is important to use questions to promote cultural awareness and inter-cultural learning. In addition, each teacher indicated a range for the average number of questions used in a lesson that varied from teacher to teacher. The average number of questions used in a lesson, as indicated by each teacher, fell within 15–50 questions.

2. *What are the four ESL teachers' observed classroom practices regarding their use of questions?*

The second research question sought to answer the following: What are ESL teachers' observed questioning practices? Each participant was observed on four different

Table 2. Teachers' beliefs.

Teachers' beliefs	Priscilla	Steve	Molly	Gunther
Questions Questions can be used to introduce a topic.	✓	✓	✓	✓
Questions can be used to promote noticing.	✓	✓	✓	✓
Questions can help students build on prior knowledge.	#	✓	✓	✓
Questions can be used to promote cultural awareness and facilitate learning of other cultures.	#	#	✓	#
Questioning practices Types of questions should be sequenced with a purpose.	✓	✓	#	✓
If students do not understand the question, teacher needs to change questioning strategy.	✓	✓	#	✓
Some questions are planned before class, but new questions are formed in response to the way the lesson unfolds.	✓	✓	✓	✓
It is important to ask more questions in which students can express their opinion, reasoning or unknown info.	✓	✕	✓	✓
It is important to ask more questions in which students can demonstrate their knowledge.	✕	✓	✕	✕
It is important to frequently check for comprehension.	✓	✓	✓	✓
Perceived average number of questions asked each lesson.	30–40	15–20	45–50	20–30

Key: ✓ = agrees; ✕ = does not agree; # = not stated.

occasions. The observed questioning practices in each lesson for both novice teachers are reported in Table 3, while the observed questioning practices in each lesson for both experienced teachers are reported in Table 4.

As can be observed in Tables 3 and 4, the two novice teachers, Pricilla and Steve, both asked display questions while referential questions were not observed. Both also used questions in all their observed classes to check for student comprehension. However, it was observed that the two experienced teachers, Molly and Gunther, were only observed asking referential questions in all their classes but they had no examples of display questions. Only Molly was observed using questions to check for student comprehension in all her classes, which was similar to the two novice teachers, while Gunther only used questions for student comprehension checking in half of his observed classes.

In addition, in order to get a more detailed idea of what was observed, we subdivided their questioning practices with regard to frequency of each observed question type for each teacher separately in Tables 5-8, and we comment briefly on the results of each Table.

As can be observed in Table 5, Priscilla employed display questions most frequently. Out of the four observations, display questions were most prevalent in three of them. Of the 377 questions asked across all the observations, display questions (such as 'And during the dry season, what happens?') accounted for 52.0%. Furthermore, echoic questions consisting mainly of comprehension checks (such as 'Alright?') and confirmation checks (such as 'Armand Fizeau?') constituted 38.4% of the total questions asked.

As shown in Table 6, Steve utilized display questions (such as 'So, in that sentence, what is our gerund?') most frequently in all four observations. Of the 138 questions asked in total, display questions accounted for 55.8% followed by

Table 3.   Observed questioning practices for novice teachers.

	Priscilla				Steve			
Observed teacher questioning practices	P1	P2	P3	P4	S1	S2	S3	S4
Teacher used questions to introduce a topic.	✓	✕	✕	✓	✓	✕	✕	✕
Teacher used questions to promote noticing.	✕	✕	#	✕	#	#	#	#
Teacher planned questions ahead of time, but created new questions in response to the way the lesson unfolded.	✓	✓	✓	✓	✓	✓	#	#
Teacher repeated, reformulated or asked a new question if students did not understand the question.	✓	✓	✓	✓	✓	#	#	#
Teacher asked referential questions.	#	#	#	✕	#	#	#	#
Teacher asked display questions.	✓	✓	✓	✓	✓	✓	✓	✓
Teacher used questions to check student comprehension	✓	✓	✓	✓	✓	✓	✓	✓
Teacher used questions to incorporate the cultural diversity of students' backgrounds into the lesson.	✕	✕	✕	✕	✕	✕	✕	✕
Teachers sequenced types of questions with a purpose.	#	#	#	✕	#	#	#	#

Key: ✓ = observed; ✕ = not observed; # = minimal occurrence
P1: Priscilla's Lesson P1 – Listening comprehension activity about famous scientists.
P2: Priscilla's Lesson P2 – Activity about famous scientists continued.
P3: Priscilla's Lesson P3 – Review.
P4: Priscilla's Lesson P4 – Listening comprehension activity about the origins of English.
S1: Steve's Lesson S1 – Gerunds and infinitives.
S2: Steve's Lesson S2 – Gerunds and infinitives continued.
S3: Steve's Lesson S3 – Gerunds and infinitives continued.
S4: Steve's Lesson S4 – Gerunds and infinitives continued.

referential questions (such as 'What's the meaning of the first sentence?') at 16.7%. Furthermore, echoic questions consisting mainly of comprehension checks (such as 'Alright, any questions about these verbs?') and confirmation checks (such as 'The chapters?') constituted 27.5% of the total questions asked.

As indicated in Table 7, Molly utilized referential questions (such as 'Do you think it would be too much to be a student and working at the same time?') most frequently in all four observations. Of the 276 questions asked in total, referential questions accounted for 50.7%. Furthermore, echoic questions consisting mainly of comprehension checks (such as 'Okay?') and confirmation checks (such as 'Both liars and lawyers need to be persuasive?') constituted 29.0% of the total questions asked.

As demonstrated in Table 8, Gunther employed referential questions most frequently, accounting for 45.0%. Furthermore, echoic questions consisting mainly of confirmation checks constituted 20.1% of the total questions asked. Of all the participants, he employed the most rhetorical questions which constituted 20.6% of the total number of questions asked.

One immediate and striking reflection that can be noted from the observed questioning types from each of the teachers outlined in Tables 4 to 7 above is that the two novice teachers used display questions more frequently than other types, including referential questions. In comparison, the experienced teachers used referential questions more frequently than display and other types of questions. Possible reasons for this observation will be outlined in the Discussion section below.

Table 4. Observed questioning practices for experienced teachers.

Observed teacher questioning practices	Molly				Gunther			
	M1	M2	M3	M4	G1	G2	G3	G4
Teacher used questions to introduce a topic.	✔	✗	#	✔	✗	✔	✔	✔
Teacher used questions to promote noticing.	✔	✔	#	✔	✔	✔	✔	✔
Teacher planned questions ahead of time, but created new questions in response to the way the lesson unfolded.	✔	✔	✔	✔	✔	✔	✔	✔
Teacher repeated, reformulated or asked a new question if students did not understand the question.	✔	#	#	#	#	#	#	✔
Teacher asked referential questions.	✔	✔	✔	✔	✔	✔	✔	✔
Teacher asked display questions.	✔	#	✗	#	#	#	#	#
Teacher used questions to check student comprehension.	✔	✔	✔	✔	✔	✔	#	#
Teacher used questions to incorporate the cultural diversity of students' backgrounds into the lesson.	#	#	✔	✗	✗	✗	✗	✗
Teachers sequenced types of questions with a purpose.	✔	✔	✗	✔	✔	✔	✔	✔

Key: ✔= observed; ✗= not observed; # = minimal occurrence
M1: Molly's Lesson M1 – Persuasive speeches.
M2: Molly's Lesson M2 – Persuasive speeches – practice presentations.
M3: Molly's Lesson M3 – Persuasive speeches – finishing practice presentations.
M4: Molly's Lesson M4 – Job interviews.
G1: Gunther's Lesson G1 – Introduction and conclusion for presentations continued.
G2: Gunther's Lesson G2 – Voice quality during presentations.
G3: Gunther's Lesson G3 – Visual aids for presentations.
G4: Gunther's Lesson G4 – Persuasive speeches.

Table 5. Priscilla's observed questioning types.

Observed Class	Question types							Total no. of questions
	CC	CR	CN	R	D	E	RH	
1	14	1	27	9	50	0	0	101
2	9	4	11	18	15	0	0	57
3	25	2	15	4	61	0	1	108
4	14	4	19	0	70	1	3	111
Total	62	11	72	31	196	1	4	377
Overall frequency (%)	16.4	2.9	19.1	8.2	52.0	0.3	1.1	100.0

Key:
CC: Comprehension Check
CR: Clarification Request
CN: Confirmation Check
R: Referential
D: Display
E: Expressive
RH: Rhetorical

Table 6.   Steve's observed questioning types.

Observed Class	Question types							Total no. of questions
	CC	CR	CN	R	D	E	RH	
1	4	1	6	10	17	0	0	38
2	6	0	4	4	23	0	0	37
3	4	0	4	4	21	0	0	33
4	5	0	4	5	16	0	0	30
Total	19	1	18	23	77	0	0	138
Overall frequency (%)	13.8	0.7	13.0	16.7	55.8	0.0	0.0	100.0

Key:
CC: Comprehension Check
CR: Clarification Request
CN: Confirmation Check
R: Referential
D: Display
E: Expressive
RH: Rhetorical

Table 7.   Molly's observed questioning types.

Observed Class	Question types							Total no. of questions
	CC	CR	CN	R	D	E	RH	
1	7	3	9	34	27	1	16	97
2	5	0	12	18	3	0	2	40
3	3	0	24	63	0	0	3	93
4	2	0	15	25	3	0	1	46
Total	17	3	60	140	33	1	22	276
Overall frequency (%)	6.2	1.1	21.7	50.7	12.0	0.4	8.0	100.0

Key:
CC: Comprehension Check
CR: Clarification Request
CN: Confirmation Check
R: Referential
D: Display
E: Expressive
RH: Rhetorical

Discussion

In general, convergence was found between teachers' beliefs and their observed classroom practices for all participants. However, some patterns of divergence were also found. Convergent and divergent examples will now be outlined.

Convergent beliefs

Steve's teacher beliefs with regard to teacher questions were mostly convergent with his questioning practices in the classroom. During the follow-up interview, Steve indicated that he asked display questions most frequently and expressed that his reason for doing so was to try 'to get [the students] to come up with specific answers'. When contrasted with his observed questioning practices, this belief is consistent. Display questions formed the bulk of questions in each observation and constituted

Table 8.   Gunther's observed questioning types.

Observed Class	Question types							Total no. of questions
	CC	CR	CN	R	D	E	RH	
1	0	1	11	22	11	0	5	50
2	0	3	18	27	6	3	4	61
3	1	1	8	27	10	1	8	56
4	0	2	3	31	3	0	32	71
Total	1	7	40	107	30	4	49	238
Overall frequency (%)	0.4	2.9	16.8	45.0	12.6	1.7	20.6	100.0

Key:
CC: Comprehension Check
CR: Clarification Request
CN: Confirmation Check
R: Referential
D: Display
E: Expressive
RH: Rhetorical

55.8% of the total number of questions asked. Similarly, Steve indicated that he also frequently employed comprehension checks, citing the reason was 'to make sure [the students] understand what we're doing in class'. In terms of the frequency for different question types, echoic questions made up 27.5% of the total number of questions asked, with comprehension checks comprising over half at 13.8%. Furthermore, Steve employed referential questions at a lower frequency of 16.7% when compared to the frequency of display questions. During the follow-up interview, he indicated that he does use referential questions, but that the usage is dependent 'on the topic that we're doing'. Steve also indicated that he asks 'questions to introduce a topic and get the students to think about the topic that's going to be covered in class' (follow-up interview). Consistent with stated beliefs, it was observed that Steve used referential questions to introduce the topic of the new unit of gerunds and infinitives.

Generally, Molly's stated beliefs converged with her observed questioning practices in the classroom. It was observed that she used a higher percentage of referential questions than display questions. Overall, referential questions comprised 50.7% of the total number of questions asked. During the follow-up interview, Molly expressed the need to use questions that 'have them [the students] engaged in thinking about the topic' and that these questions 'might not have a right or wrong answer because we're dealing with a lot of different cultures, so they might approach things differently'. In addition, she articulated the importance of having 'them [the students] realize that they can find the answers through their textbook, through research, and through talking with each other' citing the reason was that 'I don't want them [the students] to think I have all the answers'. Molly's large proportional use of referential questions is consistent with her belief that the use of questions can promote noticing with regard to the topic. Interestingly, Molly was the only teacher to state that questions can be used to promote cultural awareness and intercultural learning. Convergent with her belief, she consistently used questions to engage students in discussions relating to their cultures, as well as how it differs from other cultures.

Gunther's stated beliefs also converged with his observed questioning practices. It is observed that a higher proportion of referential questions were asked compared to the other question types. Referential questions comprised the bulk of the total questions asked across all four observations (45.0%). In the follow-up interview, he stated that 'they [higher proficiency students] have to be able to answer questions; they have to be able to formulate their opinions in a logical way, so I kind of rein-force that by asking questions'. This belief regarding the requisite language abilities of high proficiency students is convergent with the high proportion of referential questions. In addition to referential questions, Gunther had a fairly high proportion of rhetorical questions at 20.6%, especially when compared with the other partici-pants. With regard to rhetorical question, he articulated his belief that 'in a typical university lecture, I think a lot of professors use them [rhetorical questions], so it's good to expose students to rhetorical questions'. Gunther's belief regarding rhetori-cal questions is consistent with his observed questioning practices using this type of question.

Divergent beliefs

Priscilla is an interesting case because although she exhibited some convergence in her beliefs and her questioning practices in the classroom, she also exhibited diver-gence and that is why we placed her in this section. For example, her convergence was exhibited when she stated it was important 'to make sure [the students] were following [the lesson]' and in order to do so, she performed 'a lot of comprehension checks; it doesn't matter the level' (follow-up interview). This belief is consistent with some of her observed questioning practices. The frequency of echoic questions, which includes comprehension and confirmation checks, constituted 38.4% of the total number of questions. Of that 38.4%, comprehension checks formed 16.4%. However, not all of her teacher beliefs were consistent with her questioning prac-tices. With regard to the frequency of question types asked, Priscilla's statement, 'I seem to ask a lot of critical thinking questions, especially at higher [proficiency] levels', indicates that facilitating higher order thinking is a priority (follow-up inter-view). Referential questions are defined as questions in which the learner is required to express their opinion, reasoning or information in order to promote genuine com-munication (Brock, 1986; Long & Sato, 1983). There may be multiple answers which are unknown to the teacher (Brock, 1986; Long & Sato, 1983). However, when compared with observed questioning practices, Table 5 indicated that each les-son was dominated by display questions which are defined as questions in which the answer is known to the teacher and provide an opportunity for students to display their knowledge and understanding (Brock, 1986; Long & Sato, 1983). This type of question made up 52.0% of the total number of questions asked. Referential ques-tions constituted only 8.2% of the total number of questions asked.

Convergent and divergent beliefs and practices related to teacher questions

Thus, the results of this case study generally suggest instances of patterns of both convergence and divergence between the four ESL teachers' beliefs and practices regarding their questioning practices in the classroom. When we examine each of the four teachers individually we can see examples of both divergence and conver-gence. For example, looking at the two novice teachers we can see both; in the case

of Priscilla, the novice teacher of a beginner listening class, her belief regarding the importance of using a lot of referential questions was inconsistent with her questioning practices. The proportion of display questions far exceeded the proportion of referential questions across all observations. In contrast to Priscilla, Steve's belief regarding the importance to use a lot of display questions was consistent with his questioning practices. The proportion of display questions was much higher in comparison to the proportion of referential questions. However, we must also consider that both Priscilla and Steve taught a beginner class and may have had to employ more display questions in order to promote participation among their students with lower language proficiency. Indeed, research indicates that display questions may be more effective than referential questions at promoting student participation at lower language proficiencies since students potentially lack the language necessary to attend to the demands of a referential question or higher order question (David, 2007; Shomoossi, 2004). Moreover, Shomoossi (2004) also found that in reading classes teachers asked more display questions in order to gauge students' comprehension of the text before continuing with referential questions.

Parallel to reading classes, the main objective of Priscilla's listening class was comprehension of an aural text. She used a similar sequencing of questions in her lessons. In a listening comprehension activity that began midway through the first observation and ended in the second observation, Priscilla asked many display questions to gauge her students' comprehension of the aural text related to famous scientists that changed the world before proceeding to referential questions that required her students to think critically. Similar to reading and listening classes, the main objective of Steve's grammar class was to improve students' accuracy of specific grammar items, and thus the grammar exercises lend themselves well to the use of display questions to gauge students' understanding of how to apply prescriptive rules.

In the cases of Molly and Gunther, the teachers of the advanced intermediate level speaking class and the advanced level speaking class, respectively, they both displayed patterns of convergence between their beliefs regarding the importance of using a lot of referential questions their questioning practices. It was observed that they used a higher proportion of referential questions in comparison to display questions. Their patterns of convergence can also be explained by the same potential factors. Shomoossi (2004) also found that referential questions generate more interaction in the classroom in comparison to display questions, especially at higher language proficiency levels. Molly and Gunther taught classes of high language proficiency where the students had adequate language abilities necessary to attend to referential or higher order questions that provide rich opportunities for student participation and classroom interaction. Their students were not constrained by the same language limitations as those of Priscilla and Steve. Furthermore, both Molly and Gunther taught speaking classes in which the main objective was to help students to develop and improve their communicative language abilities. Referential questions are a suitable complement to typical speaking activities such as discussions, debates and role-playing since these types of questions provide opportunities for genuine communication to take place as well as the expression of opinions and exchange of information (Ellis, 1994).With regard to all the teachers in this case study, the students' level of language proficiency and the course content are poten-

tial factors that could have influenced convergence or divergence between teachers' beliefs regarding questions and their questioning practices in the classroom.

In addition to the patterns of convergence and divergence for individual participants, there were several patterns of divergence common to all the teachers. It was observed that all the teachers were not truly aware of the number of questions they asked in a typical lesson. Although every teacher was conscious of the fact that he or she employed a high proportion of questions in every class, the number of questions each teacher used on average was far higher in comparison to the observed average number of questions he or she asked. In several cases, the observed average number of questions for the participants was double. A possible factor that could account for this divergence is that teachers plan only some of their questions and adapt their questioning practices to the flow of the classroom. Jackson (1968) distinguishes between two phases of teaching: 'preactive' and 'interactive'. The 'preactive' phase refers to the period of time before teaching, in which the planning of lessons and selection of teaching methods and materials occurs, whereas the 'interactive' phase refers to the period of time in the classroom involving interaction between the teacher and the students.

During the preactive phase, experienced teachers do not plan their lessons in accordance with the approach outlined by Tyler (1950, cited in Tsui, 2003). Tyler (1950, cited in Tsui, 2003, p. 23) proposed a model of planning which consists of 'a linear sequence of decisions': (1) decisions regarding aims and objectives are made, whereby 'aims are the more general statement of purpose, and objectives are the specific realizations of aims'; (2) decisions regarding the content of the lesson are made, specifically the materials or activities to be used in order to achieve the objectives; and (3) decisions regarding 'the organization of activities, or the presentation of materials'. Instead, as Calderhead (1995, p. 74) has noted, 'teachers start with a conception of their working context and from that decide what is possible'. Similarly, Tsui (2003, p. 41) states that experienced teachers 'demonstrate more autonomy and flexibility in both planning and teaching' and that they have routines that allow them to 'improvise and respond to the needs of the students and the situation very quickly'. Priscilla expressed, 'I usually plan … however, I always seem to find more questions while I'm teaching the lesson, which is the beauty of it [teaching]' (follow-up interview). Similarly, Steve indicated, 'even some of the questions in the lesson plan, I don't need to ask them because they [the students] already know something, or I notice they're not getting something or understanding something … I try to come up with new questions' (follow-up interview). Although Priscilla and Steve are novice teachers, their statements demonstrate the autonomy and flexibility discussed by Tsui (2003) which suggests that they are becoming more reflective of their four years of experience teaching ESL.

Molly and Gunther, the teachers with more than five years of ESL teaching experience, made similar statements. Molly articulated, 'I don't usually put questions in my lesson plans … they [the questions]are in my head and I go from there' and 'something that often happens are teachable moments … so one question might lead to another idea, another concept, or another line of thinking. I encourage students to [discuss topics interesting to them] if that's the direction that they want to go as long as they are using the language that they are trying to learn, even if it takes me off my lesson plan' (follow-up interview). Moreover, Gunther stated, 'typically, I don't plan questions too much, but most of the time, it's more spur of the moment. You know, I can read the class and then come up with a question' (follow-up inter-

view).These teachers plan questions ahead, but are able to adapt to the constantly changing demands of the situation in the classroom. Since they are constantly adapting, planned questions may or may not be used, while spontaneously formed questions are employed. Under these conditions, maintaining an accurate count of the number of questions asked in a class becomes a challenging endeavour.

Implications: importance of reflecting on practice

The purpose of examining language teacher beliefs and classroom practices is not to look at or for 'best practices'; rather, the idea is to see what *is*, so teachers can become more confident knowing that what they believe about language teaching and learning is being reflected in their classroom practices. With regard to teacher use of questions, Farrell (2009, p. 60) has noted the importance of reflective practice because teachers are generally 'not aware of the number, type, and function of the questions they ask' in their classes because they do not normally consciously reflect on this issue. Similarly, the teachers participating in this case study had never deeply reflected on their beliefs or their classroom practices regarding questions, especially the number and type of questions they believe they use and actually use while teaching. However, it is essential for teachers to become more aware of their questioning practices and how these practices are informed by their beliefs in order to be as effective as possible at facilitating student learning and participation.

Since language teachers' beliefs about successful teaching form the core of their teaching behaviour, this paper has suggested that opportunities should be provided for practising language teachers to articulate and reflect on their beliefs and classroom practices. As Woods (1996, p. 71) has cautioned, language teachers must be on guard against any claim of 'allegiance to beliefs consistent with what they perceive as the current teaching paradigm rather than consistent with their unmonitored beliefs and their behaviour in class'. By engaging in reflective practice, teachers can construct and reconstruct their own beliefs and practices concerning their use of questions so that they can provide optimum learning conditions for their students. The combination of talking and writing about their beliefs and practices as well as engaging in classroom observation all seemed to contribute to their exploration of their beliefs and practices concerning their use of questions, one of the main purposes of this study. Therefore, it is hoped that this study will act as a catalyst for encouraging English language teachers to reflect upon their use of questions (and other aspects of their teaching) because there is a need to articulate tacitly held beliefs so that teachers become more aware and have a better understanding of how their beliefs impact their classroom practices (Farrell, 2011; Farrell, 2013).

Conclusion

This case study attempted to examine the relationship between four ESL teachers' beliefs and practices with regard to teacher questions. Both patterns of convergence and divergence were observed for all four teachers. For example, one pattern of divergence found to be common for all participants was the teachers' beliefs regarding the number of questions asked in a typical class were inconsistent with their observed questioning practices. The results of this case study suggest that the combination of classroom observations, journal writing and discussions all contributed to the teachers' exploration of and reflection on teacher beliefs and practices related to

teachers' use of questions. Consequently, language teachers need to reflect on beliefs and classroom practices because they exist in a symbiotic relationship in which both are shaped by each other (Walsh, 2006).

One limitation of this case study is that there were only four participants and as such makes generalization of the findings difficult. However, we believe as Flyvberg (2006, p. 227) has eloquently stated, 'knowledge that cannot be formally generalized can still enter the collective process of knowledge accumulation in a given field or in a society'. In other words, case studies that do not attempt to generalize still offer value to such a process, and we believe that language teachers can learn about the importance and method of comparing their own beliefs about teacher questions with their actual classroom practices through reflection.

It is also hoped that this case study can act as a starting point for other teachers to reflect on their own beliefs and practices regarding questions. Furthermore, studies that examine teacher beliefs and practices with regard to questions are limited despite their fundamental role in classroom interaction and language teaching. Therefore, it is hoped that further research continues in this area.

Disclosure statement

Notes on contributors

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