Changes in Two Migrant Learners' Beliefs, Learning Strategy Use and Language Achievements
In a New Zealand Context
Abstract

Substantial amount of research regarding L2 learners' beliefs has been conducted in recent years. However, less attention has been paid to the interactions among the three constructs: learners' beliefs, learning strategies and language learning achievements. This longitudinal case study investigated changes in two Chinese migrant learners' beliefs and learning strategy use, and gains in their achieved proficiency in New Zealand. Through the triangulation of various data sources, this study revealed both learners changed the beliefs they held to varying degrees. Common to both learners were changes in their beliefs about approaches to language learning from an initial analytical approach to a later more experiential one. In addition, a new belief about collaborative learning emerged after the learners had been exposed to new approaches to language teaching in New Zealand. Like beliefs, the learners' strategies also evolved. Both learners started employing social strategies which they had not attempted in China. Although both learners' language did improve, there was a noticeable variation in the extent to which their language proficiency was achieved. The results suggested the complex relationship between learners' beliefs and learning strategies and challenged the linear relationship between the two variables as suggested by previous quantitative studies.

Key words: learner beliefs; learning strategies; Chinese learners; second language learning; immigrant

learners

1. Introduction

Studies on language learners' beliefs in SLA started in the mid-1980s when it was first introduced into the field by Horwitz (1985, 1987, 1988). Early studies are more descriptive in nature, identifying and classifying beliefs that language learners hold by using quantitative methods (Horwitz, 1985, 1986; Wenden 1987). Recent years have seen an increasing emphasis from scholars on using more situated, holistic, qualitatively-orientated approaches to investigating the dynamism in learners' beliefs (Barcelos, 2003; Peng, 2011; J.Yang & Kim, 2011; Wood, 2003; Author, 2014). Another line of recent research is examinations of the interactions between beliefs and other variables, for example, the relationship

between beliefs and strategies (N.Yang, 1999), between beliefs and language proficiency (Tanaka, 2004), the effects of beliefs on learning autonomy (Cotterall, 1995; Author, 2010, 2013a) and on learners' willingness to communicate (Author, 2013b).

Despite these recent developments in research, studies on learners' beliefs, according to Ellis (2008), are fairly marginal compared to other individual learner factors, such as motivation, aptitude, learning strategies and personality. Many areas have yet to be investigated. For example, what role do contexts and culture play in the formation of learners' beliefs? To what extent do beliefs direct learners' behaviours and manage their learning? How do learners' beliefs mediate the learning process and eventually affect learning outcomes? The purpose of this paper is twofold. Firstly, it attempts to understand changes in learners' beliefs and learning strategies as a result of a new learning context in New Zealand. Secondly, it aims to examine the interactions between learners' beliefs and learning strategies during their learning process and their joint impact on learning attainment.

2. Literature review

2.1. Research into language learner beliefs

Most of the early belief studies treated learner beliefs as static, resistant to change and a ready-made mental entity, and sought to quantify the strength of learner beliefs in different populations of learners (e.g. Horwitz, 1988; Wenden, 1998). Recent years have seen a shift of focus in research towards a more contextualized understanding of learners' beliefs. It is argued that beliefs may change over time and across situation, and that they are socially constructed and contextually situated (Barcelos, 2003). Amuzie and Winke (2009), for example, combined quantitative with qualitative introspective measures to investigate changes in 70 international students' beliefs as a result of a study abroad program in the United States. The results revealed statistically significant beliefs transformation relating to learner autonomy and the role of teachers. The learners reported that while abroad they came to believe more strongly that they themselves should find opportunities to use their L2 and that success in L2 learning depended more on their own efforts outside class. In his longitudinal study, Peng (2011) employed the case study method to trace changes in one Chinese first-year college student's beliefs in an EFL context over a seven month period. The findings revealed substantive changes in the student's beliefs systems as

mediated by classroom affordances. Similar results were also reported in Author's (2014) longitudinal study of five migrant learners in New Zealand. The results revealed that some positive beliefs emerged after the learners had been exposed to new approaches to language teaching in New Zealand, and that learners changed their beliefs about approaches to language learning due to the new language learning environment. These studies have provided empirical evidence that beliefs are dynamic, fluid and context-responsive.

2.2. Learners' beliefs and learning strategies

As learners vary considerably in terms of the quality, quantity and frequency of strategy use, it is believed that the variations are due to a range of different factors. These include social and environmental factors (e.g. learning context, learning tasks, teaching methods and country of origin) and individual learner factors (e.g. age, gender, learner beliefs, motivation, career orientation, cognitive style and language proficiency, see Takeuchi, Griffiths and Coyle, 2007). For the current study, I will only review studies on the effects of learner beliefs on the choice of learning strategies as they are the most relevant.

Dörnyei (2005) posits that conscious strategy use is logically influenced by learners' beliefs. Ellis (2008) also believes that learning strategies are influenced by learners' explicit beliefs about how best to learn. A handful of researchers have attempted to examine the effect of beliefs on the choice of learning strategies. In their study of 480 students from primary schools, secondary schools and a tertiary institution in Botswana, Magogwe and Oliver (2007) investigated the relationship between language learning strategies, proficiency, age and self-efficacy beliefs. A modified version of Oxford's (1990) *Strategy Inventory for Language Learning* (SILL) was used to collect data on strategies and the *Morgan-Jinks Student Efficacy Scale* (MJSES) was used to collect self-efficacy information. The results revealed that there was a statistically significant but moderate relationship between self-efficacy beliefs and the use of language learning strategies across all proficiency levels of the participants involved. Using Horwitz's (1987) *Beliefs About Language Learning Inventory* (BALLI) and the SILL, Abedini, Rahimi and Zare-ee (2011) examined 203 Iranian university EFL learners' beliefs and strategies and the relationship between them. Similar results were yielded that language learners' self-efficacy beliefs and their perceived value of learning a language were strongly correlated with their use of all types of language learning strategies

but metacognitive strategies which the majority of students did not attempt in their language learning. The study also revealed negative correlation between beliefs about formal practices and the use of functional-practice strategies. In other words, when students believed that learning grammar, vocabulary and translation were the most important parts of learning a language, they were unlikely to seek or create opportunities to use or practice the language skills. However, different results were yielded in Bonyadi, Nokou & Shahbaz's study (2012). In their investigation of 130 Iranian first year university students, they reported there was no correlation between self-efficacy beliefs and strategy use and the most frequently used strategies were metacognitive.

Review of the literature indicates the majority of the previous studies on learner beliefs and learning strategies focus on learners in a study abroad and/or an EFL context. Studies on migrant learners in the ESL environment are lacking in literature. An in-depth understanding of beliefs and strategies of this group of learners will add value to current scholarship. In addition, previous studies of language strategies mostly employed large scale survey methods to collect cross-sectional data on reported learning strategies. Studies are needed to examine learners' strategy use from emic perspectives over a period of time. Finally, although a handful of quantitative studies have been conducted to examine the relationship between learner beliefs and learning strategies, results from these studies revealed a causal and linear relationship between the two variables. It is not clear if learners always act upon the beliefs they hold. An in-depth, qualitative inquiry is needed to examine the complexity of the interactions between the two constructs.

This study attempts to fill the gap, aiming to address three research questions:

(1) How do the learners' beliefs change during the observed period?

(2) To what extent does the learners' strategy use appear to be dynamic?

(3) What changes, if any, are evident in their language learning achievements?

3. Methodology

A major drawback of quantitative approaches to the study of constructs like beliefs and learning strategies is their lack of emic perspectives. Data are gathered out of context and depersonalized. Dufva (2003) questioned the validity of the belief information gathered from a Likert-scale questionnaire as it

does not measure beliefs but rather responses to the researcher's formulation of beliefs. Recent years have seen an increasing emphasis from scholars on using more contextualized, qualitatively-orientated approaches (Barcelos, 2003). The case study is a research method that has been employed by many scholars in SLA to investigate learners' beliefs (e.g. Mercer, 2011; Peng, 2011; J. Young & Kim, 2011; Author, 2014). As the aim of this inquiry is to provide an in-depth understanding of learners' beliefs and their strategy use rather than extrapolating findings to other populations and contexts, it is legitimate and promising to employ the case study research method.

Data were collected longitudinally over an 18-week period at different intervals to detect if there were any changes in the three constructs. It is hoped that the richness and depth of data this study generated will advance our understanding of the phenomena and lead to "a full and thorough knowledge of the particular" (Stake, 2000, p.2).

3.1. Context and participants

This inquiry was part of a broader research study into the beliefs and learning strategy use of Chinese migrant learners and their impact on learning English in a New Zealand context (Author, 2012). It took place at a language school of a large tertiary institution in New Zealand. The research site was chosen as it represented a typical language school in New Zealand where language learners chose to study. In order to gather meaningful data for the study, purposive sampling (Patton, 1990) was used to select potential participants. The criterion was that they had to be recent language learners from China who had been in a New Zealand learning context for no longer than 6 months. Chinese learners were identified as the focused language group because they constituted the majority of student population at this language school and also other language schools in New Zealand. Understanding this learner group was significant for the school and the findings could be also useful in other contexts which have similar learners.

Ethical procedures were followed strictly. The potential participants were first approached by the administrators. After they had agreed to participate in the project, I contacted the participants, reassuring them that their identity would remain anonymous and confidential. Having received full information about the study, seven learners voluntarily participated. However, two learners withdrew from the study in the eighth week of the project due to their family commitments. Five learners continued until the

research was complete. Due to space limitations, this paper focuses on two of the five migrant learners, Fei and Bing (both pseudonyms) because the data generated from them were more illuminating to the research questions under investigation.

Case one: Bing

Bing was a 35-year-old male student. He did not learn English formally at school in China as he went to an art academy immediately after he graduated from primary school. At the academy he learned singing especially along with other key high school subjects, e.g. maths, Chinese, history, etc. Foreign languages were not part of the curricula. Having received five years' specialized training, he worked for a symphony orchestra in Shenzhen for another five years. Then he set up his own advertising agency. He ran the business successfully until he decided to emigrate to New Zealand under the business category. Just before moving to New Zealand, he spent approximately 6 months learning English from a Chinese private tutor who had been teaching English at university for more than 10 years. He met the tutor for two hours a day, five times a week. They followed a textbook, *New Concept English* by L.G. Alexander. It was a very popular textbook at that time in China, which consists of four books. He completed book one *First things First* before emigrating to New Zealand. According to Bing, the lessons mainly focused on grammar and vocabulary. Every time the tutor translated the text into Chinese which was followed by explicit explanation of grammar rules. He was then left with considerable grammar exercises to do and vocabulary to memorize.

After arriving in New Zealand, Bing learned English at a private language school for three months. Due to financial pressure, he decided to stop learning and started his own house painting business. The business mainly served the Chinese community, so he did not have any language barriers. Bing wanted to change the direction of his business and to establish his own advertising agency in New Zealand, catering for the needs of both Chinese and mainstream communities. To achieve this goal, he decided to return to school to learn English full time. He wanted his English to be good enough to enable him "*to communicate freely with my prospective Kiwi customers, understand their intentions and implement them in the commercial ads*" (Interview I).

He had joined in the programme for one semester (18 weeks) and passed the Elementary One level. When the data were collected, he had just started the Elementary Two level. There were 17 students in the class and they were from diverse cultural backgrounds: 6 Chinese, 2 Koreans, 2 Pakistanis, 4 Africans and 3 Iranians.

Case two: Fei

Fei was a 28-year-old female student. She visited New Zealand twice between 2007 and 2008. Each time she stayed for approximately 3 months and then returned to China. When the study was conducted, she had been in New Zealand for only a month and it was her third visit. This time she decided to stay in New Zealand for a longer period as she felt the need to explore her career opportunities.

Fei had learned English since secondary school. At university she did a double major degree. Her first major was accounting. Journalism and Chinese was her second major. Because she loved writing and getting involved with social and cultural issues, she chose to become a journalist after graduation. She had worked for a Chinese government news agency since graduation. She was very ambitious and had a very successful career in China.

Fei had never enrolled in a New Zealand language school. It was her first experience in New Zealand as a fulltime student. She had two motivations for learning English. One was instrumental. She wanted her English to be good enough to enable her to "*pursue further education and secure a new career opportunity*" (Interview I). Although she was not clear about where that future unfolded for her, she had no doubt that good English would offer her a good career prospect whether it be in New Zealand or in China. Another motivation was integrative. She wanted to learn English in order to be able "*to integrate into the mainstream society and not to be limited to the Chinese community*" and "*to communicate with people from all walks of life in New Zealand*" (Interview I).

Fei studied at the Pre-intermediate level. There were 20 students on the course: 3 Koreans, 6 Chinese, 8 Africans, 2 from the Middle East, 1 Tibetan Indian.

3.2. Data collection instruments

To ensure the dependability and trustworthiness of the study, triangulation data were gathered longitudinally on different data collection timescales using a number of data collection instruments as described in the succeeding section.

3.2.1. Instruments for collecting data on beliefs and strategies

(1) In-depth interviews: two interviews were conducted. The learners were asked a set of open-ended questions relating their beliefs about language learning and learning strategies use. Each interview lasted approximately 60 minutes.

(2) Classroom observations: with permission from the learners and teachers involved, the learners were observed and videotaped in their intact classrooms in week 5 and 10 of the study respectively. Each observation was 120 minutes' duration.

(3) Stimulated recall interviews: two stimulated recall interviews were conducted within two weeks after the classroom observations when their memories were still fresh. While watching the pre-selected classroom video clips, the learners were asked to comment on what was happening in the classroom, what they were doing and why. The purpose was to help learners reflect on their classroom behaviours and articulate their tacit beliefs and identify their specific strategies relating to classrooms (Gass & Mackey 2000).

(4) Learning logs: the learners were asked to keep one to two weekly journal entries where they could write their thoughts regarding what they considered to have an effect on their language learning.

(5) Task-based interview: two task-based interviews were conducted immediately after each speaking task, aiming to assess the learners' specific strategy use.

Due to the learners' low language proficiency, all the interviews were conducted in their L1 in order to get meaningful data.

3.2.2. Instruments for collecting data on learners' language achievements

(1) Monologic oral narrative task: a picture composition was chosen from a lower level composition book (Heyer, 1994) to assess their spoken English under a 'watch-then-tell' condition (Ellis & Barkhuizen, 2005, p.33). The learners were first shown the pictures and then narrated the stories in as much detail as possible. They were allowed to prepare for ten

minutes. No detailed guidance was provided except that they had to give a minimum of three sentences for each picture and use the past tense. The oral narratives were audio-recorded with the participants' permission and transcribed.

(2) Vocabulary Levels test: Schmitt's (2001) revised version of the 2,000 and the 3,000 Word Level Tests were used to assess the learners' vocabulary size. The former consists of a total of 27 words and the latter, 30 words. Both tests require learners to match target words with their corresponding definitions. While Fei sat both tests, Bing only did the 2,000 Word Level test due to his low language proficiency.

(3) Oxford Quick Placement test: the paper-based Oxford Quick Placement Tests (QPT) were used to assess learners' general language proficiency. The QPT is composed of two task types: reading and use of English / grammar. Both tasks are multiple choice questions, requiring learners to choose the best answer from the options given. The total score is 60.

Table 1 gives an overview of data sources and data collection methods used in this study.

Table 1 *Overview of Data Collection Methods*

Focus	Instrument	Frequency & Length	Purpose
Language learner beliefs and learning strategies	1. Semi-structured interview	Two: week 1 & week 18 One hour each	• To uncover the learners' beliefs & learning strategies. • To trace the developments of the learners' beliefs & learning strategies • To answer RQs 1 & 2
	2. Diary	One journal entry every week	• To gain an in-depth understanding of the learners' beliefs and strategy use. • To examine the developments of the learner beliefs & learning strategy use • To answer RQs 1 &2
	3. Class observation	Two: week 4 & week 10 120 minutes each	• To observe the learners' overt learning behaviors • To examine the learners' actual learning strategy use • To answer RQ 2
	4. Stimulated recall interview	Two: week 4 & week 10 30 minutes each	• To get the learners' interpretations of their class learning behaviours. • To elicit the learners' views about their learning in the classroom setting • To answer RQ 1
	5. Task-based interview	Two: week 1 & week 18 30 minutes each	• To investigate task specific learning strategies • To answer RQ 2
Language proficiency	6. Oral narrative task	Two: week 1 & week 18 15 minutes each	• To assess the learners' oral English & trace its development • To answer RQ 3
	7. Vocabulary Levels test	Two: week 1 & week 18 50 minutes each	• To assess the learners' vocabulary size & trace its development • To answer RQ 3

8. Oxford Quick Placement test	Two: week 1 & week 18 30 minutes	• To assess the learners' general English & trace its development • To answer RQ 3

3.3. Data analysis

For research questions one and two, the data collected from the first semi-structured interview and task-based interview were used to account for the learners' initial beliefs and learning strategies (hereafter referred to **Time 1**). These data were then utilized to compare with all the subsequent data gathered on different timescales of the study (hereafter referred to **Time 2**) to detect developments and changes in the learners' beliefs and learning strategy use.

3.3.1. Identifying learner beliefs

Fishbein and Ajzen (1975) define beliefs as "a person's subjective probability judgments concerning some discriminable aspect of his world" (p.131). In this definition, beliefs are held to reflect the subjective reality of an individual. Drawing on Fishbein and Ajzen (1975), language learners beliefs in this study were defined as learners' subjective understanding of themselves and some aspects associated with their language learning, e.g. teachers, exams, their fellow classmates, text books etc. Any statements in the following forms as illustrated in table 2 were regarded as learners' beliefs and were used for analysis (see also Wenden, 1987).

Table 2 *Criteria for Identifying Learners' Beliefs*

Language feature	Example
• General statements relating to language learning that expressed opinions	I believe/think/in my opinion/ to my view, it's important to learn English in an English-speaking country.
• Statements that contained modal verbs	You/I/We/Students need/must/have to/ should spend more time on grammar.
• Definitions about language learning and teaching	Learning English is mainly about rote learning new words.
• Hypothetical statements	If I were younger, I would learn English faster.
• Statements that included superlatives or comparatives	The best way to learn English is to enroll in a formal class.

3.3.2. Identifying learning strategies

Learning strategies in this study were defined as any actions, both mental/unobservable and overt/observable, that learners take to comprehend, acquire and retain new information, enhance their learning and compensate for any deficiency in their language competence (Cohen, 1998; Dörnyei, 2005).

The data collected from a number of sources (e.g. diary entries, interviews, class observations and task-based interviews) were analyzed line by line for specific as well as general descriptions of each of the following strategy categories: (1) cognitive, (2) metacognitive, (3) compensation, (4) social and (5) affective (Dörnyei, 2005; O'Malley & Chamot, 1990). Each mention of a strategy type was counted.

3.3.3. Methods used in qualitative analysis

Qualitative analysis was used to answer research question one and two. Before the data analysis commenced, I first transcribed verbatim all the data gathered from all the interviews. I then read repeatedly all the interview transcripts, diary entries and classroom observation field notes while jotting down notes in the margins. After several readings, I started open coding the set of data for Fei. During the line-by-line scrutiny of the data, codes were affixed to the units of analysis which could be single words, short phrases, complete sentences, utterances or extended discourse. These expressed her beliefs about language learning and indicated her learning strategy use. Each unit was identified by sources, participants and particular data collection episodes. Data reduction followed afterwards. Similar themes were grouped into tentative categories. Propositional statements were made for each of these categories. For example, I subsumed all her comments about learning grammar, speaking, reading, writing and the priority in learning English under one category and the proposition I created was 'beliefs about learning a second language'. All the categories were then tested against the second set of data for case two, Bing, to see if the tentative categories existed and continued to hold. If new tentative categories were identified, I would re-examine the previous case and add the new provisional categories to the subsequent data analysis. It was a process of recursive analysis where data were read repeatedly; new codes were added until saturation was reached, i.e., no new themes were found, and salient themes, categories or recurring patterns began to emerge. During this process, I stayed close to the data; research questions were frequently referred to and literature was revisited.

Drawing on Lincoln and Guba (1985), I used a number of measures to ensure credibility, transferability, and dependability of the qualitative analysis. These included (1) prolonged engagement and persistent observation; (2) triangulation of data and analysis; (3) rich and thick description; (4)

member checking where each interview transcript was returned to the participants to check its accuracy, and their comments were incorporated in the data analysis.

3.3.4. Quantitative analysis

Quantitative analysis was used to answer research question three: what gains, if any, are evident in their language achievements? The oral native task was measured in terms of fluency and accuracy (see Yuan & Ellis, 2003). For the Vocabulary Levels tests, each correct answer was allocated one point and incorrect answers or unanswered questions did not receive a point. The same marking criteria were applied to the Oxford Quick Placement Test. Test scores at Time 1were then compared to those at Time 2. Results were presented in bar graph figures showing the differences of learners' language tests at two data collection points.

4. Results

4.1. Evolution of the learners' beliefs about language learning

Following the inductive qualitative data analysis procedures as described above, I established four exhaustive (i.e. all instances were assigned to a category) and exclusive (i.e. all instances were assigned to only one category) categories of learners' beliefs about language learning as shown in table 3.

Table 3   *Classification of Learners' Beliefs about Language Learning*

Category	Definition
1. Beliefs about external factors	Referring to a range of classroom-related external factors affecting learners' language learning. These include error correction, the role of teachers, exams, collaborative learning and settings of language learning
2. Beliefs about personal factors	Consisting of two sub beliefs. One refers to those individual learner factors relating to age, language aptitude, memory and self-efficacy. Another includes learners' beliefs about their own language proficiency, e.g. their own strengths and weaknesses in English
3. Beliefs about learning a second language	Relating to those beliefs concerning English grammar, vocabulary and the four language skills (listening, speaking, reading and writing) as well as their beliefs about the importance of accuracy and fluency
4. Beliefs about approaches to language learning	Referring to those beliefs about general approaches to language learning (e.g. "learning English is about using it in real life" [Fei]) as well as their epistemological beliefs about learning (e.g. "learning is a cumulative process where I have to accumulate my English knowledge gradually" [Bing])

A comparison of Bing's beliefs at Times 1 and 2 revealed a few changes. At Time 1, Bing did not express his views about working in pairs/groups. This was because he had hardly experienced collaborative learning in China. His learning experiences in China made him believe that classroom learning meant "*sitting there listening quietly and attentively*" and "*copying heaps of notes from the blackboard*" (Interview I). His job as a learner was "*to listen carefully and ensure I was able to complete exercises accurately*" (Interview I). Not surprisingly, he held the view that learning took place between teachers and learners and "*there was nothing taking place between me and my fellow classmates*" (Interview I). In comparison, the school programme document in New Zealand disclosed that teachers in the New Zealand context endorsed communicative teaching approaches. To enhance learners' communicative competence, one of the key techniques was to reduce teacher talking time and allocate enough class time for learners to engage in meaningful learning tasks in pairs/groups. As Bing experienced more collaborative learning in the new learning environment of New Zealand, at Time 2, a new belief emerged about collaborative learning in classrooms. However, Bing had mixed feelings about collaborative learning. On the one hand, he believed he benefited from it because group/pair work was not nerve-wracking and less threatening whereby "*you are forced to speak ... you can communicate freely with people from other countries and you can use what you have learned*" (Stimulated recall II). On the other hand, he was not convinced that working in groups/pairs helped his accuracy. The data revealed that at both times Bing held a firm belief that accuracy was paramount in his language learning. He expected teachers to spend more time teaching grammar and to provide him with corrective feedback. In that regard, he doubted his fellow classmates' ability:

> *Teachers asked us to work with our partners. But we are at a similar level. If we have problems, we can't correct each other. If we are both wrong, we can't find each other's problems. Yes, when working in pairs or groups, we can use the language to communicate but we don't know if our English is correct or not. I'm really concerned about the impact of their bad and incorrect English on my learning. (Bing, Stimulated Recall I)*

Another change in his beliefs was related to his views about learning a second language. At Time 1, despite the advice he received from his friends that he should '*listen more and speak more*' (Diary entry 2), he was of the view that vocabulary was his weakness and that it should stay as the primary focus of his learning. He believed that his listening and speaking would improve when his vocabulary size had

been increased. However, at Time 2, while acknowledging the significance of vocabulary, he realized he should invest more time in listening and speaking. He perceived the relationship between vocabulary and other skills as this: "*Reading can help you memorize vocabulary. Speaking can help use vocabulary. Listening can help comprehend vocabulary*" (Diary entry 10).

Finally, while believing the best approach to learning English was by learning its grammatical rules and memorizing new words at Time 1, at Time 2, Bing perceived an active use of English as the key to successful learning. In his view, "*learning a language is pointless if you can't use it*" (Interview II). This was particularly true of vocabulary learning. He believed '*if I use them [new words] for a month and if there is someone who can practice with me, I can remember them. This approach works best* for *me*" (Diary entry 17). He concluded the best way to learn English was that "*you have to listen extensively, read sufficiently and speak continuously*" (Stimulated recall interview II).

Like Bing, Fei's beliefs also underwent some changes. The significant one was her three sub-beliefs about external factors: exams, teachers and collaborative learning. Fei believed exams played different roles in her learning in China, compared with those in New Zealand. Due to the high-stakes exams in China, she said, "*I had to learn for exams. Test results decided the kind of university I was admitted into and the prospective job I ended up with. I had to learn for exams and pass them well*" (Interview I). Consequently, her learning revolved around tests requirements. She used exams to "*check what was missing in my learning*" and "*from every test we sat I could always find something that I hadn't known before*" (Stimulated Recall II). However, at Time 2, she was more relaxed about exams in New Zealand due to its low-stakes nature. She commented, "*tests don't have much impact on my learning...I don't change my learning behaviour due to tests*" (Diary entry 8).

Another change in her beliefs about external factors was her attitude toward teachers. When reflecting on her learning in China, she regarded herself as a passive learner as she was "*compelled*" to learn for exams. She relied on teachers to transmit knowledge and help her pass the rigorous national university entrance exams. In comparison, she felt in New Zealand she was more willing to take responsibility for her own learning. She was of the view that teachers played two roles in her learning: "*as a guide or a compass and as an adviser*" (Diary entry 6). In the role of the former, they "*guide your*

direction and direct your attention" (Diary entry 6); in the latter, "*they give you good suggestions about learning and good learning methods that you can follow so that you don't have to fumble your way through*" (Diary entry 8).

The last emergent belief about external factors concerned pair/group work. Unlike Bing, Fei held a highly positive attitude towards collaborative learning. According to her,

> *I like working in groups/pairs where I can strike the iron while it is hot. I can use, practise and consolidate what I have learned with my classmates. When I am alone by myself, I can recall more of what I have learned. (*Stimulated recall I)

She believed that working in groups/pairs also offered her an opportunity to share views with her fellow students.

Related to these changes in beliefs about external factors were her altered views about approaches to learning a language. At Time 1, she believed that the best and fastest place to learn a language was to enrol into a language course and learn formally in a classroom setting from teachers. With her exposure to the outside world, at Time 2, she saw learning opportunities outside of classrooms. She was of the view that "*every time is study time and every place is learning space*" (Diary entry 18). To her, the best way to learn was by using the language in real life as opposed to learning through reading and memorization at Time 1. She wrote, "*I believe learning a language means going to a place where I can keep using the language so that I can improve it*" (Diary 16). Her learning space extended beyond schools and classrooms to the real world.

The findings revealed that over the 18- week period both learners changed their beliefs to a varying degree. The findings were consistent with other studies (Mercer, 2011; Peng, 2011; J.Yang & Kim, 2011; Author, 2014) and lent further support to the argument that learner beliefs are context specific (Barcelos, 2003).

4.2. Development of the learners' language learning strategy use

The qualitative data analysis of the learners' language learning strategies established five categories of learning strategies for this study:

Table 4   *Classification of Learners' Language Learning Strategies*

Category	Definition
1. Cognitive strategies	Involving analysis, manipulation transformation or synthesis of learning materials, e.g. translation, repetition.
2. Metacoginitive strategies	Involving an attempt to regulate learning through planning, monitoring and evaluating one's own learning process
3. Social strategies	Concerning ways in which learners interact with other users of the L2, e.g. 'question for clarification'
4. Compensation strategies	Involving a use of the target language despite limitations in learners' linguistic resources, e.g. using gestures in speaking
5. Affective strategies	Involving taking control of the emotional (affective) conditions and experiences that shape one's subjective involvement in learning

The strategy that Bing employed most frequently at both times was cognitive, especially relating to his grammar and vocabulary learning. In order to improve his accuracy, at both times, he committed himself to doing ample grammar exercises and learning grammatical rules. Regarding his vocabulary learning, at Time 1, rote-memorisation surfaced as the exclusive memory strategy that Bing employed to learn vocabulary. He reported spending hours of his out-of-class time in the institute library doing grammar work and rote memorizing the word lists that his teachers assigned for self-directed study. Initially, he rote-learned words by writing the words down on a piece of paper repeatedly, a strategy he used exclusively in China, but he was frustrated about "*forgetting them the next day*" (Task-based interview I). At Time 2, he reported attempting other memory strategies: (1) recording words onto a tape and listening to them; (2) memorizing new words in discrete sentences: (3) using vocabulary flash cards on which he wrote the target word on the front and their meaning in Chinese at the back. However, it seemed none of these methods had helped him retain the words. He felt the time he spent on vocabulary was "*futile and wasted*" (Diary entry 17). He commented, "*it wasn't until the end of the semester that I started to try learning words while reading. A lot of vocabulary that I remembered well was through reading texts.*" (Interview II). Additional cognitive strategy Bing employed at Time 2 was to watch TV every day. Although he could not understand, his purpose was to "*familiarize myself with the sounds and to nurture my feel for English*" (Stimulated recall II).

Comparing to Time 1, at Time 2, Bing also attempted to employ a social strategy whereby he participated in pair/group work in classrooms, which he had never attempted at Time 1. However, the

class observation notes also indicated that he was not very active or willing to get involved. In his view, although he found group/pair work useful for his speaking and listening, he was concerned about the impact of the inaccurate English inputs from his fellow students on his language learning.

In summary, over the 18-week period, Bing's strategies had a minimal development. He attempted some new memory strategies and most importantly he started using social strategies when engaging in collaborative learning in class. His other cognitive strategies, compensation strategies and metacoginitive strategies remained similar at both times. He did not report using affective strategies at both times.

Like Bing, Fei reported using rote-memorisation predominantly at Time 1. At Time 2, her strategy use changed substantially. The main memory strategy she used to tackle vocabulary was what she called "*going back to texts*" and "*going back to the reading*" (Diary entry 18). She firmly believed that reading was the best way to learn vocabulary; therefore, she went to the institute library to read books in English every afternoon. In order to increase her vocabulary size quickly, at Time 2, she employed a number of memory strategies. She combined rote-memorizing word lists with learning through reading. Another new memory strategy was to go to a Chinese website to read the Chinese newspaper that was translated from English. She "*first read the translation and then reverted to the original English version*" (Task-based interview II). To make vocabulary learning more interesting, she used tongue twisters to help her memorize some words. One of the examples she gave was this, "*the dog caught his paw when he tried to crawl along on the lawn*" (Diary entry 7). Additionally, she started finding ways to improve her listening and nurture her feel for English. In order to achieve this, she went to the institute self-access language learning centre where she listened to English tapes and sometimes English songs. She also tried to avoid watching Chinese TV programmes by installing Sky TV so that she could force herself to be exposed to English. Furthermore, she kept using as much English as possible in her homework and in her note taking. Finally, she used an English- English dictionary to record word definitions.

Relating to her use of compensation strategies, at both times she "*guessed the meaning from the context*" (Task-based interview I & II) when she came across new words and "*substituted complex words with easy and simple words*" (Task-based interview I & II). Although she resorted to her L1 at both times, at Time 1 she did this frequently whereas at Time 2 she only used it "occasionally". At Time 2, Fei used

English more in real life to communicate with people, native and non-native speakers alike. She used two strategies to compensate for the deficiency in her English: when she did not have the right word, she "*explained the meaning*" (Task-based interview II) and when she did not understand, she "*asked people to repeat*" (Stimulated recall I).

The most remarkable development was her extensive use of social strategy, which she did not attempt at Time 1. In order to create speaking opportunities, initially she went to the student café after class and chatted in English with her fellow students from other countries. As her language proficiency improved, she extended her communication opportunities to real life. She saw shopping as an occasion where she could "*communicate and chat away with native speakers*" (Stimulated recall I). She also took advantage of various events taking place in the communities, e.g. gift and home shows, seminars and markets in order to "*learn English, communicate in English and experience the culture*" (Diary entry 15).

It is evident that over the 18 weeks, Fei's strategy use developed substantially. At Time 1, the repertoire of her strategies was limited mostly to cognitive and metacognitive strategies. At Time 2, she added other cognitive strategies. The most remarkable development was her extensive use of social and compensation strategies in both classrooms and the real world. Her learning activities went beyond the classroom setting. Outside of school, she took every opportunity to use the language, immersed herself in English and experienced the target culture and community. Her language learning strategy use had changed qualitatively.

4.3. Changes in the learners' language achievements

Figure 1 compares Bing's tests scores at Times 1 and 2. His 2,000 Word Level test scores improved slightly by 7% (Time 1=19%; Time 2=26%). Although Bing invested a lot of time in rote-learning word lists, the results were disappointing, which may account for Bing's frustrations that he had been struggling to retain the words he learned. However, his improvement in grammar was evident. He gained 12% in the QPT (Time 1=23%; Time 2=35%). In accordance with the Oxford Quick Placement test interpretation, he shifted one level up. His commitments to grammar learning also helped him gain 18% in his accurate use of the verb forms in the oral task at Time 2 (Time 1 = 32% correct use of the past

tense. Time 2= 50% accurate use). However, his gain in accuracy in the oral task came at the price of fluency.

Figure 2 compares Bing's fluency test scores in the oral narrative task at Times 1 and 2. The decrease in his fluency was remarkable. The rate A (the number of syllables per minute) dropped by 16.89 syllables (Time 1= 83.36 syllables; Time 2=66.47 syllables). The rate B (the number of meaningful syllables per minute) also declined by 30.70 syllables (Time 1=69.29 syllables; Time 2= 38.59 syllables). His focus on accuracy was apparent. As he used much more repairs, reformulations and false starts, his fluency deteriorated at Time 2.

Figure 1: Changes in Bing's Vocabulary, QPT and Accuracy Tests Scores (in percentage)

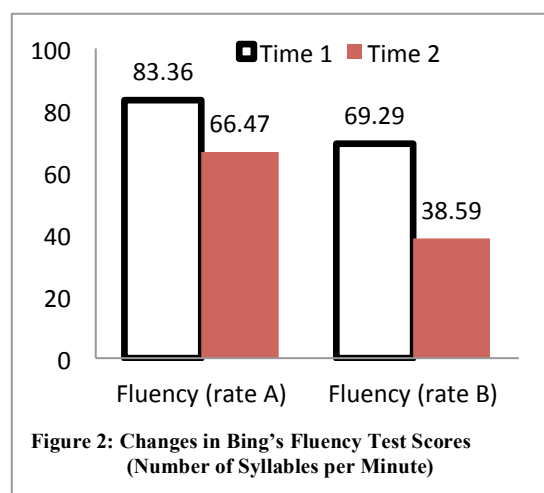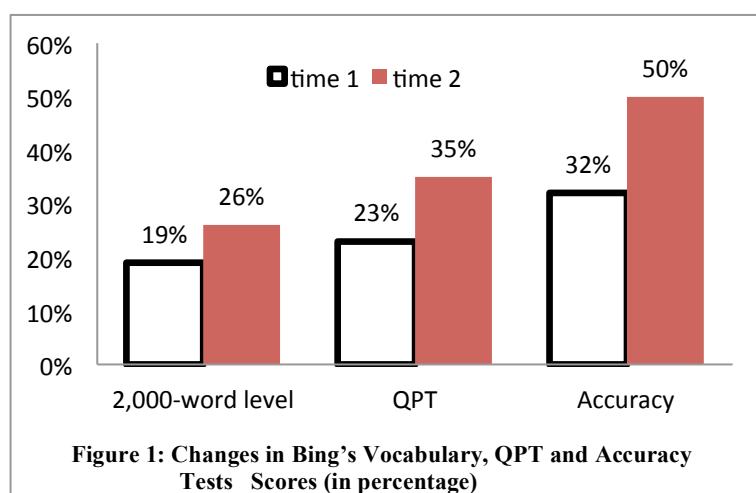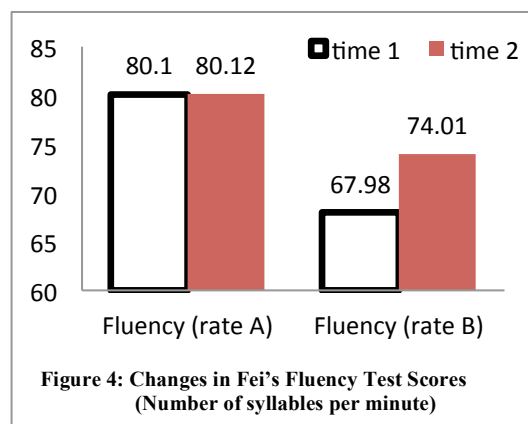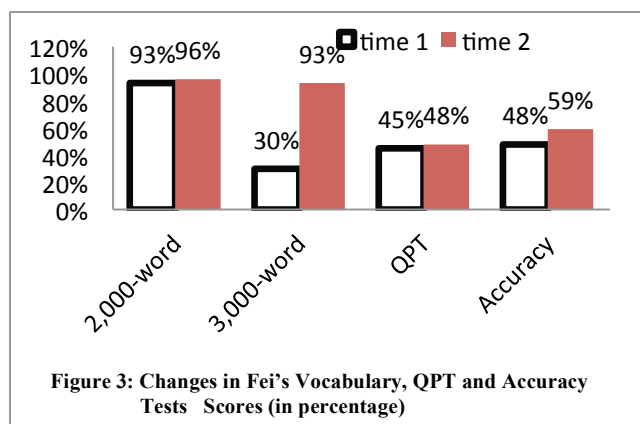Figure 2: Changes in Bing's Fluency Test Scores (Number of Syllables per Minute)

Figure 3 compares Fei's tests results at Times 1 and 2. It shows her improvement across all the tests at Time 2. The most noticeable change was the increase in her vocabulary size. For the 2,000 Word Level test, she gained 3% (Time 1 = 93%; Time 2= 96%). The reason for the minimal improvement was that she had reached the ceiling for this vocabulary level test. Her increase in the 3,000 Word Level test was remarkable where she improved by 63% (Time 1 = 30%; Time 2= 93%). Although her improvement in the general English proficiency test was minimal (Time 1= 45%; Time 2 = 48%), her accurate use of the past tense in the oral task had increased by 11% (Time 1= 48%; Time 2= 59%).

Figure 4 shows her fluency in the oral narrative task also improved. Although her rate A barely improved at Time 2 (Time 1 =80.10 syllables /minute; Time 2 = 80.12 syllables/minute), she made progress in rate B, by 6.03 syllables (Time 1= 67.98/minute; Time 2=74.01/minute). The difference between rate A and B had narrowed by 6.01 syllables (Time 1 = 12.12 syllables; Time 2 = 6.01). This means that she was able to speak with fewer reformulations, repairs and false starts at Time 2. Fei had

Figure 3: Changes in Fei's Vocabulary, QPT and Accuracy Tests Scores (in percentage)

Figure 4: Changes in Fei's Fluency Test Scores (Number of syllables per minute)

become a more balanced speaker at Time 2. She was able to speak not only fluently but also more accurately.

5. Discussion

This study offers some insight into the interactions among these three variables: language learners' beliefs, language learning strategies and language learning achievements. Whilst the study appears to support results reported by previous quantitative studies (e.g. Abedini et al. 2011; Magogwe & Oliver, 2007; N.Yang, 1999), suggesting a linear relationship where learners' beliefs directly influence learning strategies, this is not always exclusively the case. The findings revealed that the relationships among the three constructs were much more complex than previous quantitative studies suggested. This study showed that the learners did not always execute all the beliefs they held due to a variety of reasons. When the learners failed to act on their beliefs, they were unlikely to achieve the learning outcomes they had intended to. For example, Bing changed his beliefs about approaches to language learning from an initial analytical approach to a later experiential one. At Time 2, he placed a greater emphasis on the importance of using the language in communication. However, he did not make a conscious and consistent effort to seek out communication opportunities in real life due to his low language proficiency. Neither did he participate actively and willingly in classroom discussions as he was fearful of losing face in teacher-led situations and concerned about inaccurate inputs he received from his fellow classmates when working in pairs/groups. Although he changed his beliefs, he did not act upon them and hence did not show increased fluency in the oral narrative task. This finding lends support to Ellis's argument (2008) that "the fact that learners hold a particular belief is no guarantee they will act on it; conflicts with other strongly held beliefs, situational constraints, or personal reasons may prevent them " (p.703). This

suggests that beliefs do not have a direct impact on learning outcomes and that their influence on learning depends on whether they are acted on.

This study also suggests that both the type and quantity of learning strategies are related to the level and rate of learning. For example, both Bing and Fei believed that vocabulary was critical in their learning. Shaped by this belief, they were both committed to vocabulary learning. However, Bing had limited memory strategies, relying on rote-memorization exclusively at Time 1 and predominantly at Time 2 whereas Fei employed depth of processing strategies most of the time. Specifically, she used the wider, social context to help her learn the meanings of words and then tried to use them herself. She reported having a range of strategies at her disposal and using them flexibly and appropriately. This appears to have assisted Fei to improve her vocabulary while Bing's gains in vocabulary were minimal.

Finally, the study confirmed the findings of previous studies (Wharton, 2000; Author, 2008) reporting that the relationship between learning strategies and learning outcomes is bidirectional. That is, strategy use helps develop proficiency which in turn promotes more use of strategies. Fei employed using L2 in communication to enhance her fluency. Initially, her communication was limited to the classroom and the school. The positive outcomes motivated her and encouraged her to extend the strategies she used to the real world, which facilitated her learning further. As her language developed, she was able to employ more sophisticated strategies, such as using an English-English dictionary and watching English TV.

6. Conclusions, limitations and pedagogical implications

As afore-mentioned, the aim of this case study was to examine changes in learner beliefs, learning strategies and gains in their language over 18 weeks. The results revealed that both learners' beliefs and strategies developed over the observed period. However, there is a noticeable variation in the extent to which they develop. While changes in Fei's beliefs and strategies are substantial, Bing has minimal developments in both aspects, suggesting individual differences in their response to the new sociocultural and educational contexts. Furthermore, the study suggests that influence of learners' beliefs on language gains is indirect via learning strategy use and that the relationships between beliefs, strategies and learning outcomes are complex and not always linear as previous studies suggested.

This study shed light on the interactions among these three constructs. However, due to the qualitative nature of this study, the sample size was small and the participants were all low- proficiency learners from the same cultural background. Caution has to be taken when generalizing the results, particularly to learners from different cultural backgrounds and in different learning contexts. Furthermore, I used verbal reports, mostly retrospective (e.g. interviews and diaries), to collect data on beliefs and strategy use. In the future, it might be a valuable addition to the kinds of data generated here, to also include verbal protocols while learners were performing an oral task. This may gather more information about the learners' specific strategy use. Finally, due to scope and space limitations, the impact of other factors on changes in learner beliefs, learning strategies and learning gains was not included in this inquiry. Future studies could investigate if these changes are related to other factors, particularly personality, motivation and learning styles, etc.

The findings of this study are illuminating. They highlight the importance of understanding the dynamics of learner beliefs and learning strategies and the role they play in learners' learning process. It is essential for teachers to take these different learner factors into consideration when designing a course and to explore how to incorporate them in their curricula and lesson plans to optimize learners' learning.

Acknowledgements

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