

# An Ecological Examination of Student Teachers' Belief Development During the Teaching Practicum

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## Abstract

Using Bronfenbrenner's ecological theory of human development as the framework, this study explores how the ecological context of student teachers affect their belief development during the teaching practicum. Findings reveal that during the teaching practicum, student teachers interacted directly or indirectly with their ecological environments, including students, parents, mentors, supervisors, school policies, culture and social trends, which led them to develop, confirm, integrate, discard, or modify their beliefs. Findings also reveal that ecological environments may not only encourage but also impede student teachers' belief development depending on what kind of influences they exert on them. Lastly, findings suggest that although macrosystem locates the most distant in student teachers' ecological environments, factors within it may exert a huge influence on other environments and thus have a huge impact on student teachers. Based on the above findings, this study calls upon more opportunities for student teachers to participate in real-world professional practice so that they can put their beliefs to test. More training is also needed for mentors and supervisors to support student teachers' belief development.

**Keywords:** Teacher beliefs; Student teachers; Ecological environments; Teaching practicum.



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## 1. Introduction

Teacher beliefs refer to the propositions “which may be consciously or unconsciously held” by teachers and serve “as a guide to thought and behavior” (Borg, 2001). Teacher beliefs play a central role in classroom instructional decisions (Borg, 1999a) and knowledge about what teachers believe in can help promote effective teacher training.

However, beliefs of student teachers have been frequently characterized as naïve (Wideen *et al.*, 1998) and idealistic (Virta, 2002). Without real school practice, they face challenges to cope with classroom realities in their future profession. As previous research suggests, “it is only on the job that the intellectual and emotional complexity of teaching becomes a reality, and it is only in context that certain understandings and skills can be developed” (Langdon *et al.*, 2012). Teaching practicum is therefore regarded as the most valuable part in the process of student teachers' professional education (Grudnoff, 2011; Townsend and Bates, 2007), which provides student teachers with opportunities to interact with context and experiences and observe, practice and reflect on such interaction (Stuart *et al.*, 2009).

While it is acknowledged that teachers are situated within layers of environments (Bronfenbrenner, 1979) in which their assumptions, orientation and ultimately their behaviors are affected, most studies in teacher cognitions focus on the content of beliefs rather than the process of belief development (Borg, 2009; Yuan and Lee, 2014). It is therefore important to gain knowledge about how teachers' thoughts, assumptions and beliefs change and develop under the influences of ecological factors. Using Bronfenbrenner's ecological theory of human development (1979) as a framework this study aims to explore the relationship between student teachers' belief development and the ecological environments surrounding them during their teaching practicum. It is hoped that the study could capture the complex process of student teachers' belief development and explore the factors contributing to it during student teachers' initial contact with the real professional world and thus inform teacher training programs in similar EFL contexts.

## 2. Theoretical Framework

### 2.1. Bronfenbrenner's Ecological Systems Theory

Bronfenbrenner's Ecological Systems theory (1979) highlighted the influences of multilayered environments on an individual's development. These nested environments are defined as microsystem, mesosystem, exosystem, macrosystem, and chronosystem which are located from near to far distances surrounding the individual.

The microsystem is the layer most adjacent to the developing individual and is composed of the “activities, roles, and interpersonal relations” that the individual experiences “in a given setting with particular physical and material characteristics” (Bronfenbrenner, 1979). For student teachers in this study, the microsystem is the whole of their activities, roles, and interpersonal relations in their practicum site, which involves the participation of students, parents, mentors and supervisors. By examining the way student teachers interact with their microsystems during the teaching practicum, we can get insights into how they negotiate meanings with their environments and thus develop their beliefs as teachers.

The mesosystem is the next layer. It contains the relationship between microsystems in which the developing individual actively participates and builds a bridge between two or more settings which might otherwise be unrelated. For student teachers, this system can include connections between students, family, school teachers, mentors, etc.

The exosystem can be seen as an extension of the mesosystem to the larger social settings. The developing individual does not interact directly with such settings, but events that occur in the exosystem impact other settings (the microsystem and the mesosystem) containing the individual. For student teachers the environments that indirectly influence their activities during the teaching practicum, for example, school policies and high-stake exams, constitute the exosystem.

The macrosystem is the cultural environment in which the developing individual resides. In the macrosystem, broader social and cultural forces have a significant impact on the other layers and thus shape the development of the individual. For student teachers, this system would involve national cultures, current trends in teaching and learning, social and economic trends etc.

The chronosystem emphasizes time as a force that leads to changes and transitions in an individuals' life which alter the relationship between the individual and all layers of the ecological environment. Such changes and transitions occur throughout the student teachers' lifetime and may relate to their graduation, marriage, retirement and so on. However, this system requires a whole new study and would not be discussed in the current research.

## 2.2. The Interplay Between Teachers' Beliefs and the Environment

The study of teachers' beliefs constitute a major strand in teacher education literature. As assumptions that teachers hold about teaching and learning, teachers' beliefs can impact their planning, decision making and behavior in the classroom. Understanding teachers' beliefs help us understand how teachers conceptualize their work.

Some researchers believe that teachers' beliefs originate from their "apprenticeship of observation" (Lortie, 1975) and remain relatively stable during teacher education (Weinstein, 1990). Others, however, argue that teachers' beliefs are dynamic and open to change and development (Borg, 2006;2009; Cabaroglu and Roberts, 2000; Yuan and Lee, 2014). These findings corroborate Bronfenbrenner's framework which reveals that teachers' development is embedded in the nested layers of environments in which the teachers are situated and develop. Their beliefs gained from prior experiences, be it learning or working, interact with social, institutional and physical settings. Mediated by the contextual variables, they may be reshaped and further develop.

A number of studies have confirmed the necessity of examining teachers' belief development in context (Borg, 2006; Curtiss and Nistler, 1998; Davis, 2003; Maiklad, 2001; Miller and Smith, 2004; Phipps and Borg, 2009; Virta, 2002). Kunzman (2003), suggested teacher development be investigated within the context of environmental constraints of the classroom and the school, in which teachers need to attend to student needs. Curriculum, class size, exam requirement, workload, prescribed syllabus and student expectations (Andrews, 2003; Borg, 1999b; Lam and Kember, 2006; Phipps and Borg, 2009) are also found to be powerful contextual factors that may lead teachers to develop their beliefs.

Student teachers are a particular group of focus in teacher development study. Their beliefs experience change and development during teaching practicum (Borg, 1999a; Stuart and Thurlow, 2000). Cabaroglu and Roberts (2000), for example, examined the beliefs of 20 pre-service teachers in a teaching practicum and found that with the influence of their embedded learning environment, student teacher's belief development is "variable, cumulative and evolutionary" (p. 398). Yuan and Lee's study (2014) focused on the "process" of student teachers' belief change and proved that teaching reform, school-based learning, members of the practicum site and mentors of student teachers all contribute to the processes of student teachers' belief change.

## 3. Methodology

### 3.1. Research Context and Participants

This research took place in a university in the capital of Guangdong province in China, where a four-year degree course on English Education is provided, aiming at training language teachers for primary and secondary schools. As part of their graduation requirements, all students participate in an 8-week teaching practicum in their fourth year of university, in which they are put into different teams and assigned to several practicum sites (all in Guangdong province) based on their willingness and capacity of the practicum sites. Each team contains 5-10 student teachers and is allocated a university supervisor who has been teaching them at college and coordinates between the university and the sites during the teaching practicum. In the practicum sites, they will each be allocated a mentor, usually an experienced teacher. Student teachers will shadow their mentors and mentors will provide them with training, help them develop their teaching skills and show them the aspects of school life as a teacher.

The researcher invited three student teachers – Andrew, Brian and Claire (all pseudonyms) as the participants of this research. Approval was obtained from the participants and the practicum sites. It is hoped that with participants from different practicum sites, it would be easier to get insights into their beliefs development in relation to the influences of ecological environments.

### 3.2. Data Collection

#### 3.2.1. Interviews

Three rounds of semi-structured interviews have been conducted to explore how ecological environments make an impact on participants' belief development. The first round of interview was scheduled 1 week before the

teaching practicum. The participants were asked about their beliefs about teaching and learning. The second interview was carried out in week 4 of the teaching practicum while the last interview 1 week after the teaching practicum. In these two rounds of interviews, the participants were again asked about their beliefs and they were also asked to reflect upon their experience, how their beliefs have developed and what ecological factors might have contributed to their belief development. With participants' consent, all interviews were audio-taped.

### 3.2.2. Written Reflections

It was part of the university's requirements that student teachers kept weekly journals during the teaching practicum and wrote a final report by the end of the teaching practicum. With the participants' consent, the researcher was able to collect 22 journals and 4 reports in total (Andrew: 6 journals and 1 report; Brian: 8 journals and 1 report, and Claire: 8 journals and 1 report). Findings from the written reflections were used as the prompt in the second and last round of interviews.

### 3.3. Data Analysis

Data generated from interviews were first transcribed, translated into English and sent to the participants for verification. With their confirmation, interview transcripts were then coded through careful and repeated readings and a range of contextual factors and teacher beliefs were identified and put into categories which were further reassembled into recurrent themes to gain implications from the data. Written reflections were read repeatedly and thoroughly. Relevant data were highlighted and triangulated with data generated from interviews.

## 4. Findings

Findings of this research revealed the teaching practicum to be a fruitful one during which the participants developed more real-world beliefs about language teaching and learning by negotiating meaning with their ecological environments. The findings are now presented case by case.

### 4.1. Andrew

Andrew was assigned to a privileged public primary school in the capital of Guangdong province. The school is located in a good neighborhood in which graduates could guarantee a position in nearby public junior schools. Andrew taught one class in Grade 5, 35 students in total.

Andrew was happy with this teaching practicum site. In the first interview, he said:

Without examinations hanging over our heads, students and I could both get some autonomy. I'm planning to use more activities in class. My mentor told me that there would be a drama competition at the end of October. I think I can definitely contribute to it! (Weekly journal)

As a member of the Drama Association at university, Andrew has won Best Actor twice and Best Dubbing once in the Drama Competition at university. From his own learning experience, he had the belief that "drama is beneficial for English learning as it offers the opportunities for students to explore the conflicts, emotions and attitudes that the textbooks seldom cover and fosters students' intercultural awareness." (1st interview)

Andrew was responsible for preparing students for the drama *The three little pigs*, and he was "glad to see that students took initiatives" (Weekly journal). His students made the decisions about the script and roles themselves. Andrew practiced together with them three days a week after school, about one hour each time, to "support and provide them with assistance if there's the need." (Weekly journal) Andrew's belief about "letting learners' take control" was further strengthened by students' active participation.

However, two students were absent for the second practice, and more were absent in the second week. Andrew later found that resistance mainly came from the parents. Apparently, the drama competition, which brought nothing to shine on students' resumes, was not so "useful" as after-school tutoring sessions or piano classes. Although guaranteed a position in nearby secondary schools, parents were hoping that students could improve their academic performance so as to qualify for a more prestigious junior high school, which would allow them more opportunities in their College Entrance Examination 6 years later.

Andrew's mentor turned to the parent committee of the class for help. He called for a parent-teacher conference, in which Andrew's supervisor, a professor in language teaching, was invited to participate as an outside expert. During the meeting, Andrew's mentor introduced the drama competition as a tradition in this primary school and how such a group activity could enhance students' team spirit. Andrew's supervisor gave a lecture, focusing on research results on the benefits of using drama in language teaching and shared some successful cases with the parents. Parents reacted well with the lecture and interacted with Andrew's supervisor during Q&As, a lot of questions focusing on what qualities universities look for in students and what are the best majors in universities though. After the meeting, most parents seemed to be satisfied and some even volunteered to help with the making of costumes and stage props. Practice for the drama competition went on as planned.

Reflecting on this incidence, Andrew further confirmed the benefits of drama in language learning. He also developed a new belief about the importance of teacher-parent partnership.

Without parents' support it would be very difficult to achieve our educational aims. A good relationship with the parents is beneficial for students' development." (3<sup>rd</sup> interview)

Another new belief that Andrew developed was about the importance of research in language learning and the need for parent education. This was mainly inspired by his supervisor.

I think this success is hugely down to Miss Yang's [his supervisor] social status. Being a professor in a renowned university makes what she says very convincing. Besides, she is the person that the parents look up to, obviously they will buy her opinions. Not to mention that she brought all those articles and statistics with her, proving that drama is indeed a useful resource for language learning. (2<sup>nd</sup> interview)

Parents are not aware of research results in language teaching and learning. As an expert, we [teachers] need to take the responsibility to inform them of the new philosophy, new methods so that they are aligned with us in students' education. (2<sup>nd</sup> interview)

He reported in his weekly journal that he used the university library more, checking academic journals and looking for ideas in published research articles. He applied theoretical knowledge into his teaching practice more as well, and constructed a new belief that any successful teaching should be backed up by language learning theories and research.

## 4.2. Brian

Brian was assigned to a public primary school in the suburb of a small city in Guangdong province. He had 50 Grade 5 students.

In the interview before his teaching practicum, Brian was asked the question "what makes a good English teacher". Brian said:

A good teacher speaks good English. He/she shows students the beauty of English as a language and motivates students to learn (1<sup>st</sup> interview).

When asked to further specify how a teacher could motivate students, he said that he believed in the force of verbal and material incentives:

I will show students my recognition. I've already prepared some stickers and gifts so that students will behave in class. If students believe that their effort is rewarded, they will be motivated to learn better (2<sup>nd</sup> interview).

During his teaching practicum, however, Brian's beliefs about the teacher's role and student motivation are both reshaped by the ecological environment.

First, with the help of his mentor, Brian started to realize that being a teacher was more complicated than speaking good English and providing students with subject knowledge. His beliefs about language teachers were expanded.

Mr. Wang [Brian's mentor] teaches me how to check students' mastery of knowledge through their homework. If several students make similar mistakes, I need to put specific focus on this next time. When I design activities for classes, my mentor will ask me to think if I've given the right transition between activities and for students to understand what's happening. I realize that attending to students' needs and interests is very important. So I talk to students after class to know more about their life so that I can provide materials or examples that are more relevant to them. I think this is what a good teacher should do (Weekly journal).

During his teaching, Brian noticed that some students did not hand in their home assignments on time. He hadn't got the time to find out why when something unexpected happened: two students got into a fight during his class. It all started with one student calling names of the other. As both students violated school rules and got hurt, Brian and his mentor called their parents to school. However, instead of fathers and mothers, two grandmas came after school.

One kid's grandma was in her 60s. The other was very old. I think 70 or something. They were both nice ladies. They blamed their own kids for their bad behaviors and apologized for having not raised the kids well. Both grandmas asked us to be stricter on the kids. One grandma even said to Mr. Wang "A teacher for a day is a father for a life [a Chinese proverb "Yiri wei shi, zhongshen wei fu"]. I trust my kid is in good hands. All my hope is on you!" And the other grandma nodded to agree!! (2<sup>nd</sup> interview)

Brian said that he was about to cry at that time. He felt the huge expectations that grandmas had on the teachers. He later found that more than a dozen students in his class were taken care of by grandparents, with their parents working elsewhere in big cities. This explained the late assignments as well. Obviously, students did not get enough support from their family in their academic performance and personal development. He came to understand that being a good teacher is a lot more than imparting subject knowledge to students. His prior belief was gradually replaced by a new belief:

A good teacher needs to care about students' overall growth and development. He should be a friend, a mentor, a caregiver, and a big brother to the students. He may sometimes need to be a counselor to the parents or caregivers of the students (3<sup>rd</sup> interview).

After this incident, Brian changed his overall approach to students. He spent more time with them after class, not just because he wanted to know their interests and needs so that to "teach them subject knowledge more effectively". He really cared about students' feelings, those interesting or frustrating anecdotes in their daily life and their happiness and sorrows. When talking to caregivers of students, he tried to give a big picture, focusing more on students' development rather than only reporting their academic performance. With his effort, he found students were more willing to accept him and share with him their experience. He also found that it was easier for the

collaboration of students' families and the school, and the relationship between students and their caregivers. With him being a lot closer with the students, he found students became more engaged in his classes. They didn't seem to be afraid of making mistakes like they used to be and he was thus able to try new activities and teaching methods.

The teacher is a vital factor in students' immediate learning environment and therefore exert huge influences upon them. Rewards do not work so well in building a good relationship between teachers and students. When they [students] trust you, they share your enthusiasm, they know your decisions about teaching are for their benefits. Giving students gifts just for an outcome that you want to see without knowing their inner hearts is pure manipulation. Each student wants to be seen as a unique individual. As teachers, we should acknowledge their personal strength and take their side when making decisions. (Final report)

### 4.3. Claire

Claire was assigned to a private primary school in the capital city. She had 45 Grade 5 students. Most graduates from this school had to top in exams so that they could be admitted to private junior high schools because of the unsatisfactory academic performance of public junior high schools in this neighborhood.

Claire supported the use of communicative language teaching (CLT). In her 1<sup>st</sup> interview, she said:

Learners will need to use English as a language to communicate with others. This communicative competence should be the point of language learning. I'm glad to see that course books for primary schools now use a functional syllabus. This should make teaching and learning enjoyable (1<sup>st</sup> interview).

When asked how she was going to apply CLT to primary students, Claire explained:

I won't interrupt students with error correction or grammar explanation. I will give them opportunities for them to speak. They will discover themselves how language is used and thus learn to communicate.

Her belief about CLT was soon challenged. When Claire was first assigned to teach Grade 1 because her mentor said "English classes for Grade 5 and Grade 6 students were basically exam oriented, but students in lower grades could have some fun!" (Weekly journal) Claire was happy with this arrangement. She wrote in her journal:

I agree with my mentor. Younger kids have more time for communicative tasks. CLT may not work for students' exam preparation so well (Weekly journal).

However, just two days before her practicum, Claire's mentor transferred her to the 5<sup>th</sup> Grade as one English teacher, Miss Liu, was to take her maternity leave and somehow the substitute teacher couldn't come. She had one week to shadow Miss Liu and then started to teach on her own. This unexpected change disrupted her original plan.

Miss Liu has a very traditional style of language teaching, just like how I was taught as a student. Classes usually begin with words and phrases, followed by sentence patterns and grammar teaching. Linguistic exercises and sentence drills are heavily used while very few speaking is involved (1<sup>st</sup> interview).

Claire followed this pattern in her teaching. To her astonishment though, in the 1<sup>st</sup> monthly teacher performance evaluation, students only gave her a B (all other Grade 5 teachers got As). She felt ashamed, worrying that such a record may impede her job hunting later.

Trying to figure out why, Claire went to observe other teachers' classes and invited her mentor, her supervisor and other student teachers to observe hers. She also brought the question to weekly meeting of 5<sup>th</sup> Grade teachers, asking for advice. Such interactions enabled her to discover that although grammar was a focus, teachers had their own means to incorporate some elements of CLT in their teaching to make language learning meaningful for students.

My supervisor reminds me of the weak version of CLT, a concept we learnt in university, which allows the integration of a focus on form and a focus on communication. Other teachers demonstrate to me how a meaningful communicative context could be established in which pedagogical tasks are designed with linguistic elements emphasized (3<sup>rd</sup> interview).

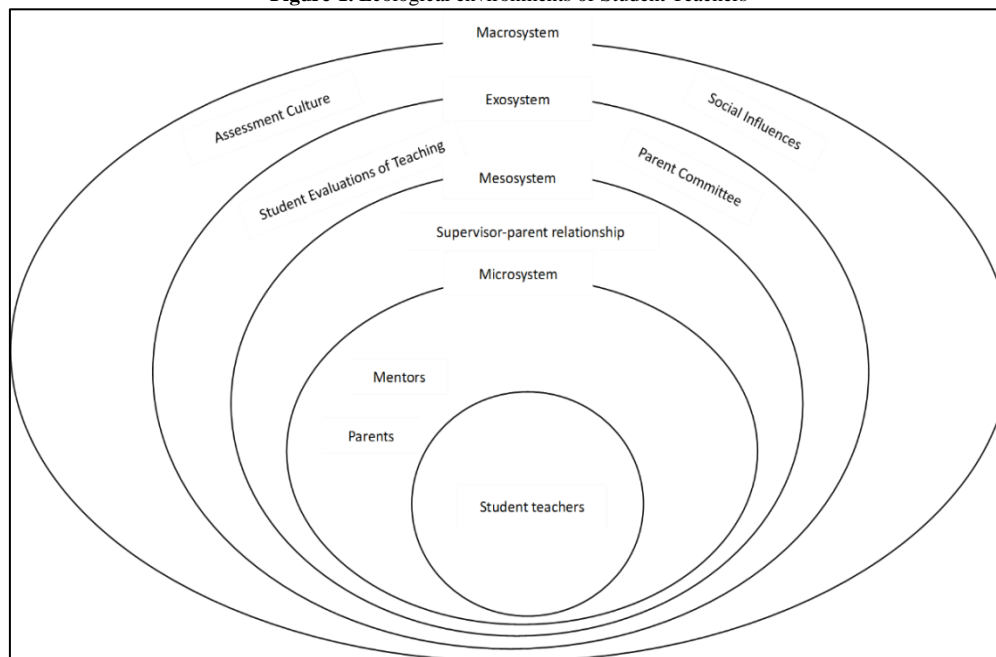
Exercises and drills were not abandoned though. Claire used them as awareness raising activities which helped student explicitly explore the language focus. It worked well for the students.

As all those exercises now make sense to them, my students enjoy my classes more. Their average score in the mid-term exam even rose a little bit (Weekly journal).

She attributed such development in her belief to people around her, her supervisor, mentor, students, other teachers, her peers – "They allowed me to see that CLT and focus on form are not in conflict with each other. Dealt with carefully, they can work together and benefit the students." (3<sup>rd</sup> interview)

## 5. Discussion

Drawing on Bronfenbrenner's Ecological theory, this study demonstrates that all three participants experienced belief development during their teaching practicum and their surrounding ecological environment with nested layers exerted a heavy influence on such belief development (see Figure 1).

**Figure-1.** Ecological environments of Student Teachers

## 5.1. The Microsystem

Among the nested environments that locate near to far surrounding the participants, the microsystem is the most proximate context which the student teachers interact most frequently with and are therefore most heavily influenced by. In this study, influential roles in the participants' microsystem include students, parents, mentors, and supervisors.

### 5.1.1. Students

Student teachers are less experienced and usually found to feel overwhelmed during their first encounter with students in the real world during their teaching practicum (Haritos, 2004; Kagan, 1992). In this process, their favored teaching styles and strategies may be put to test and their prior beliefs which originate from their own learning experience or university course work are frequently challenged by students as the most immediate factor in their microsystem.

Such challenges may come from students' low level of parental support. For example, facing the lack of parents' role in students' everyday life, Brian developed a new belief that a good teacher should take a variety of roles, like surrogate parents, or friends. Such a change in belief is congruent with findings that suggest teachers morally hold the view that they should care for their students (Nias, 1999). Brian's another new belief impacted by the demands of such an environment factor was that the teacher's job was not only imparting knowledge but supporting students' social development as well.

The challenge may also come from the desire to meet learners' expectations. Brian for example, found that a good teacher-student relationship based upon care and understanding works better on student motivation than giving them incentives. Similarly, when noticing students' low level of motivation via teacher performance evaluation, Claire developed a belief that CLT is not only for fun – rather, as a method it gave meaning to language learning and helped improve students' academic achievement.

### 5.1.2. Parents

Parents, as the most important people in students' life also exert an influence as a contextual factor within the student teachers' microsystem. Research findings suggest that with proper parental involvement, students are more likely to achieve academic progress and education success (Arnold *et al.*, 2008; Park and Holloway, 2017). At the same time, students who experience parental absence report lower educational expectations and lower cognitive abilities and are more likely to show signs of aggression and experience anxiety. In Brian's case, the lack of parents' support might have led to the fight between students and their late homework, and required Brian to adjust his belief and took the role of students' surrogate parents.

### 5.1.3. Mentors and Supervisors

Mentors and supervisors, as part of student teachers' most immediate environment, are crucial for their belief development. First, mentors and supervisors are role models for student teachers. By shadowing their mentors during teaching practicum, student teachers will learn how to teach, how to attend to student needs and how to deal with the daily chaos of the teaching job (Gao and Benson, 2012; Malderez, 2009). It is in the process of learning that student teachers identify the gap between what they assume should happen and what actually happens and realize that their beliefs are challenged. For example, by shadowing his mentor, Andrew came to understand the importance of getting parents' support in school education while by observing her mentor's teaching Claire learnt to be flexible with

teaching practices to fulfill the same educational goals. Mentors and supervisors are also the first people student teachers turn to for help when they meet with problems. By solving the problems together with their mentors, student teachers have their beliefs developed, confirmed, integrated, discarded, or modified (Johnson, 2006). For example, through convincing the parents of the benefits of drama in language learning together with his supervisor, Andrew developed the belief about the importance of research while Brian realized that teachers had to play multiple roles other than imparting knowledge after dealing with the students' fight with his mentor. However, mentors and supervisor may act as a hindrance in the advancement of student teachers' cognitive abilities as Yuan and Lee (2014) suggest. For example, Claire's mentor assigned her to teach lower grade students, implying that CLT didn't help improve students' academic performance. Such beliefs might impact student teachers and withhold their desire to explore methods or practices different from traditional ones (Grudnoff, 2011; Hobson, 2002).

## 5.2. The Mesosystem

### 5.2.1. Supervisor-Parent Relationship

Supervisors and parents are both within student teachers' microsystem. The way supervisors relate to parents constitute the mesosystem for student teachers in this study.

Andrew reported developing a new belief about the importance of research and parent education resulting from the interactions between parents and his supervisor during a parent-teacher conference. With her academic achievements, Andrew's supervisor established her authority as a professional in the area of language teaching and used her expertise to educate parents and encourage understanding of educational goals and approaches. Such interactions shed some light on how student teachers could build a pleasant working relationship with the parents and encourage student teachers in their further pursuit of professional development.

## 5.3. The Exosystem

The exosystem, although does not interact directly with the participants, may indirectly affect student teachers and reshape their beliefs. In this study, two educational policies became salient.

### 5.3.1. Student Evaluations of Teaching

Student evaluations of teaching (SETs) are one of the most frequently used indicators of teaching effectiveness in educational institutions (Lindahl and Unger, 2010). In 2001, Ministry of Education China (2001) issued a circular, promoting the establishment of an effective teaching evaluation system through the joint effort of school principals, teachers and students so as to keep teachers informed of students' development and help improve the quality of teaching. Apparently, SETs have now become a vital part in China's educational system and are widely used in schools at all levels.

The initial intention of SETs was to provide diagnostic feedback for teachers to improve their teaching and/or student learning (Marsh, 1986). Later they are also used for career development purposes (Marzano, 2012; Pounder, 2007) or linked directly with teachers' pay. According to OECD (2016), for teachers in China performance salary amounts to 30% of their total salary, with the allocation of its bonus part based on appraisal and determined by schools themselves. Therefore, although subject to students' biases (Boring, 2017), SETs are vital for teachers and exert a huge influence on their teaching practices.

In Claire's teaching practicum site, monthly SET, as an important school policy, has encouraged Claire to reflect on her teaching and enabled her to realize students' needs for meaning in language learning. Her prior belief about the advantage of focus-on-form teaching over CLT for higher grade students was therefore challenged and a new belief about the potential of CLT combined with traditional teaching was developed.

### 5.3.2. Parent Committees

As strong family-school connections have been reported to help improve achievement and performance (Galindo and Sheldon, 2012) and mediate students' social-behavioral functioning (Kim *et al.*, 2013), schools at all levels in China are promoting high-quality collaboration between parents and teachers to enhance students' education. In a circular issued by Ministry of Education (2012), the government is pushing forward the establishment of parent committees at kindergartens, primary and middle schools so as to ensure that parents could supervise schools' educational activities and participate in educational activities and school management. It is also hoped that parent committees could make suggestions for schools' work plans and important decisions and provide educational resources and voluntary services for students' extracurricular activities. It is within this context that Brain learnt from his mentor that parents were their allies when they had problems with students' education at school. It also became clear for Andrew that with parents' support, he and his students could follow through their plans for the drama competition and it was therefore necessary not to alienate the parent but to cooperate with them.

However, it deserves attention that in such a teacher-parent partnership, teachers are respected as "repositories of knowledge" and "decision makers" (Huntsinger *et al.*, 2000) while parents take the role of "supporters", and "learners" (p. 102). By inviting Andrew's supervisor to the parent-teacher conference, Andrew's mentor obviously attempted to strengthen the teachers' role as the expert in student education as well as parent education. However, without further reflection, student teachers might take it for granted that teachers should take a dominant position in school-parent cooperation.

## 5.4. The Macrosystem

A heavy focus on students' academic performance and exams can be seen all through this study. Parents' concerns about students' academic performance led to their conflict with schools' educational goals and approaches while teachers' understanding of exams drove them to discard their prior belief about CLT. Social and cultural influences and economic trends may account for such incidents.

### 5.4.1. Assessment Culture in China

Research on teachers' beliefs suggests that culture can help shape teachers' beliefs and in turn "strongly influence the processing of new information" (Pajares, 1992) and "enculturation" is believed to be among the three possible sources of teachers' beliefs, parallel to personal experience, and experience with schooling and formal knowledge (Richardson, 1996).

China has a very strong assessment culture and different forms of assessment have long been used as a means of social and personal life improvement (China Civilisation Centre, 2007). Strong association has been made between academic achievement and beliefs about personal worth and virtue (Brown and Gao, 2015; China Civilisation Centre, 2007; Li, 2009; Niu, 2007; Tsui and Wong, 2009) and examinations and grades are dominating in education in China. Such a tradition contributes to the excessive attention the whole society pays on students' grades while such attention drives teachers to doubt their existing beliefs and develop new beliefs. Therefore, in this study Claire's belief about the effectiveness of CLT gave its way to the need of preparing students for exams and parents in Andrew's case take exam scores as the only measurement for success.

### 5.4.2. Social Influences

According to statistics in 2016, after completing 9 years of compulsory education (primary school and junior secondary school), only 59.6% of total number of students entered regular senior high schools (Ministry of Education, 2018) while China's higher education enrollment rate in 2016 was 42.7% (People's Daily Online, 2017). With a simple calculation, it is clear that only 25% of all students can enter university (4-year and 3-year universities included). A more comprehensive set of data from Caoshu (2019) shows that among the 19 million people born in 1999, only a half entered senior secondary schools in 2014, 48.1% made their way to the College Entrance Examination in 2017, and only 16.19% entered 4-year universities. In some areas in China, like Guangdong province in this study, the percentage was even lower.

At the same time, during China's major transition from planned economy to socialist market economy (Yeh and Wu, 1999), many Chinese managed to take the opportunity to improve their social status and became the new middle class in China. However, in the context of this compressed industrialization and rapid urbanization, there was also polarization between the rich and the poor (Li and Wu, 2008) while upward mobility of social classes was increasingly difficult. Families therefore rely heavily on children's education as people with high educational attainment more easily get high-paying jobs and move up in mainstream society (Mok and Wu, 2016). Supporting such beliefs, research data indicate that education is a decisive factor in income levels, with annual income of college graduates reaching 59,956 and 47,668 in 2011 in urban and rural areas in comparison of 24,583 and 21,640 for high school graduates in urban and rural areas (Statista Research Department, 2012).

Such social contextual factors require teachers to balance parents' expectations and their overall educational goals and beliefs about whole person education may only work when accompanied by beliefs about parent education.

## 6. Conclusion

This research explored how the ecological contexts of student teachers influence their belief development. It is hoped that results from this research can help enhance understanding of how student teachers' beliefs are developed during their direct and indirect interaction with the surrounding environments and thus inform teacher education programs in similar EFL contexts.

Findings suggest that during the 8-week teaching practicum, all three participants interacted frequently with their ecological environments which led them to confirm, develop, integrate, discard, or modify (Johnson, 2006) their prior beliefs. Multiple ecological factors, including students, parents, mentors, supervisors, school policies, culture and social development, are found to be at play in this process. Such findings call upon more opportunities for student teachers to participate in real-world professional practice so that they can put their beliefs to test and construct more practical beliefs that may align with their teaching practices in their future career development.

Findings also suggest that while most ecological factors in this study encourage student teachers to reflect on their prior beliefs and develop new beliefs accordingly, some may act as a hindrance. Mentors, for example, have powerful impacts on student teachers because of the authoritative figure they have in front of their apprentices. The beliefs that they hold may stand in the way when student teachers are in their quest to explore the environments around them. Therefore, it is suggested that teacher education programs give training to teacher educators so that they could provide scaffolding to student teachers while allowing them to try out new methods and ideas. It would also help if the teaching practicum sites could involve student teachers more in their community in an effort to expose student teachers to multiple sources of influences and inform them of the varied aspect of professional lives of teachers.

It also deserves attention that although Bronfenbrenners' social ecology system locate near to far around the individual, the ecological influences on the developing individual may not decrease from proximate to remote



systems. In this study, students, parents, mentors and supervisors constitute the microsystem most adjacent to the participants and interact most frequently with the student teachers. Assessment culture and social factors, on the other hand, locate in the environments which student teachers do not interact directly with. However, the remote macrosystem has a huge impact on students, parents, school policies which in turn influence student teachers directly. Student teachers belief development, hence, can be seen as not only a reaction to systems closest to them but also a result of the wider cultural and social factors.

The study has several limitations though. First, with the number of participants, location of the study and short duration of the teaching practicum, this study may not be generalizable to other contexts. It should also be noted that there might be other factors in student teachers' ecological environments which are not salient for participants in this study and therefore haven't been discussed. Further research could therefore investigate the belief development of more participants in order to find out the influences of other ecological factors on their belief development. It would also be interesting to investigate facing similar contextual factors whether teachers' reactions and belief development are similar or take totally different tracks and whether the new beliefs student teachers develop are enduring or easily changed with the influences of other factors in their future career.

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