

The Impact of Teacher Education Programs on In-service Teachers in China and USA

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Beliefs about knowledge, learning and teaching are assumed to impact teachers' practice (Brownlee, 2004; N. Entwistle, Skinner, D. Entwistle, & Orr, 2000). A change of beliefs is an important step for teacher learning, but it is often seen as difficult if not impossible (Cooney, Shealy, & Arvold, 1998). This study investigated the impact some teacher education programs from China and the USA had on the teachers' beliefs and teaching strategies and how these teachers integrated the acquired knowledge and teaching strategies in their practice. Researchers were particularly interested in investigating teachers' ability and willingness to use the strategies congruent with constructivist learning theory in their classrooms.

Keywords: teacher beliefs, teacher education programs, constructivism, international comparisons

Perspectives and Theoretical Framework

Pre-service and in-service teachers hold different beliefs about learning and teaching (Schommer-Aikins, Mau, Brookhart, & Hutter, 2000), which inform how they teach in their classrooms (Brownlee, 2004; Entwistle, Skinner, D. Entwistle, & Orr, 2000). According to the types of beliefs held, learning may be perceived as an accumulation of information or as being actively constructed (Perry, 1970), while teaching may be seen as facilitation or transmission of information. These beliefs, may in turn impact teachers' classroom practice (Brownlee, 2004; Entwistle et al., 2000).

The underlying assumption in the teacher education literature is that students come to the teaching context with their own beliefs about the nature of learning and teaching developed through their apprenticeship of observation (Brownlee, Barry, Boulton-Lewis, & McCrindle, 1998; Darling-Hammond, 2000; Lortie, 1975), and as a result of the exposure to the teaching context in the teacher education programs, these beliefs may be changed or reinforced. In order for pre-service and in-service teachers to teach in a way they may have not experienced as students, they have to be guided into changing their beliefs (Ball & Cohen, 1999). For this change to occur, teachers need to analyze, reflect on their practice, assess the results of their teaching and be willing to refine and improve their instructions (Darling-Hammond, 2000; Darling-Hammond, Chung, & Frelow, 2002).

Whether teachers tend to leave teacher education programs with similar beliefs they had when they entered these programs (Borko & Putnam, 1996; Zhan, 2008) or whether exposure to the learning and teaching practices encountered in the teacher education programs impacted their beliefs (Andrew, 2007; Kroll, 2004;

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Schultz, Jones-Walker, & Chikkatur, 2008) is still the object of study.

In the USA, teachers can typically get a teaching certificate by undergoing traditional teacher education program for four to five years, where they are enrolled in education courses, and conduct a student teaching internship at the end of their programs. Upon graduation, they receive a Bachelor's degree. On the other hand, alternative routes offer teachers-on-the-job the opportunity to obtain a teaching certificate while taking classes and conducting a teaching internship while working, the duration of such programs is one year or less. Typically, the teachers undergoing the alternative routes hold a Bachelor's degree in a subject matter other than education (math, history), and they may take fewer education classes than teachers enrolled in a typical teacher education program (Qu & Becker, 2003).

Future teachers in China, on the other hand, must pass a national entrance examination for admittance into a college/university (Su, Hawkins, Huang, & Zhao, 2001), after which they attend a four-year normal university focusing mostly on subject-matter knowledge (Liu & Qi, 2006). The difference between teaching in a primary school and a secondary school in China is that, in primary school, a teacher is qualified to teach all subjects while in secondary school, a teacher is only qualified to teach one subject (Guo, 1999). As secondary teachers attend the university and they belong to a subject department (e.g., English), where they take classes such as subject teaching methodology, psychology and pedagogy. These classes are then followed by the school internship for three months. The classes future teachers take at the university are, however, mostly abstractly and theoretically delivered as lectures and have little applicability in the classroom (Guo, 1999). Similar to their American counterparts, once they graduate, teachers are faced with the reality of the classroom where they have to teach large-size classes, and they typically fall back on what they have experienced in schools in their whole life, the more traditionalist methods of instruction.

How may teacher education programs impact prospective teachers? A look at a few research studies in the USA indicates the impact teacher education classes may have on classroom teachers. A study conducted by Grossman (1990) investigated the link between subject matter knowledge, the strategies adopted by six English high school teachers and the impact teacher education classes had on the acquisition of knowledge and instructional strategies. One of the teachers named Jake stated that his idea about teaching English emerged from the knowledge he acquired in college, and he indicated that he would adopt the model of teaching that he experienced in college, that is text analysis with the help of the teacher. Lance, another teacher, believed that English was composed of literature, grammar, rhetoric and the social/historical background of literature. Lance believed that if one knows one's subject matter, there is not much one needs to know about teaching, and he believed that teaching English meant teaching students to become "incredibly literate". For Kate, the third teacher, knowing English meant being well read in different genres and literature from other countries. Her goal for teaching literature was to discuss ideas that go beyond the text, so that her students could reach beyond the discipline of English. Kate's apprenticeship of observation was evident in the way her instructional strategies (high school and college courses) and knowledge of the curriculum shaped the way that she taught in the classroom.

Steven, the fourth teacher, believed that English centered around the expression of ideas, a belief that emerged as the result of the exposure to teacher education courses. His approach to teaching Hamlet mirrored this newly acquired belief, namely, to construct a bridge between students' experiences and Shakespeare. Vanessa, the fifth teacher, divided the English curriculum into reading, writing and speaking. Her knowledge of the subject matter was related to her college experience. Vanessa stated that courses in curriculum and instruction and her teaching internship helped her clarify her own beliefs about English. Meagan, the sixth

teacher, believed that the discipline of English comprised language and literature, and her ideas of teaching English centered around the development of writing skills and encouragement of critical thinking skills through reading. Meagan affirmed that it was her teacher education program that impacted her beliefs about the importance of teaching literature in thematic units.

Overall results indicate that the beliefs about subject matter developed or reinforced by teacher education classes were transferred into the teaching context. These teachers relied on the teaching approaches they experienced as students, and applied them into their classrooms. Moreover, what they held true about the nature of the subject they are teaching further influenced their choice of instructional strategies.

Schultz et al. (2008) conducted a longitudinal study of four in-service teachers. Acknowledging the fact that sometimes the practice shock may have a greater impact on beginning teachers than the theories learned in the teacher education programs, the researchers followed those teachers for two years after they had graduated from their teacher education programs, and drew the data from monthly focus-group meetings, classroom observations and interviews with the participants at the beginning, middle and end of each academic year. Results indicate that despite the use of a scripted core curriculum, the teachers incorporated some of the teaching practices used in the teacher education programs, which were consistent with the constructivist learning theory.

In a similar study, Borko et al. (2000) investigated the impact a teacher education program had on a student teacher's practice at a high school in the USA, drawing data from classroom observations and interviews with the student teacher. Results indicate a strong impact of the teacher education program on the student teacher's development as a teacher, as reflected in her practice: "I learned a lot from my teachers. I learned some practical things that will be helpful. I learned some class management things that will be helpful" (Borko et al., 2000, p. 202). The courses in the teacher education program where the student teachers were enrolled encouraged the prospective teachers to think in new ways about teaching mathematics, and those ideas were appropriated by the student teacher and incorporated in her teaching.

The impact of teacher education programs on prospective teachers is also evident in teacher education programs in China. In an attempt to reform its education, China has undergone various degrees of reform at its curricular level, with the goal to expose prospective teachers to constructivist principles. In 2001, the Ministry of Education issued the English Language Curriculum Standards, stipulating that EFL (English as a foreign language) education should diminish its heavy stress on learning English through memorization and practice, and focus more on oral communication (Ministry of Education, 2001). This "ability to use the target language for authentic communication" (Hu, 2002, p. 93) has therefore strong implications for the preparation of pre-service and in-service teachers of English in China.

Cheng and Wang (2004) discussed the challenges faced by Chinese teachers of English. Conducting a study of 47 in-service secondary teachers of English within the context of a summer professional development program in EFL in a college in the Northeast of China, the researchers surveyed these teachers in an attempt to find out their professional challenges. Results indicated that their apprenticeship of observation and experience in the teacher education programs had impact on the way these teachers were conducting their classroom practice, as they were taught English with a heavy emphasis on grammar and translation method. When asked about the activities they used to teach English in their classes, 96% of the teachers listed reading as the most commonly used activity, while 79% mentioned practicing grammar and 86% learning vocabulary. These teaching methods are aligned with the experiences they had while learning English and they seemed to be the factor that challenged these teachers the most, along with their own English proficiency.

Zhan (2008) described the impact of a national project aimed at teaching English and learning about teaching as a profession. Drawing data from surveys and interviews with 490 primary and secondary teachers, results revealed a dependency of some teachers on transmitting knowledge, in spite of a bend towards more current English practices focused on listening and speaking skills. These challenges may result in teachers' weak knowledge of language learning and child development theories.

The impact of another project on Chinese teachers' writing in English, with a switch from following certain patters and filling in the gaps (Hu, 2005a; 2005b), was reported by Spalding, Wang, Lin and Hu (2009). Chinese teachers of English (N = 57) participated in a three-week professional development institute in Southeastern China, in which the first three authors were part of a team who came to teach reform-oriented instructional methods. The results are reported for one of the courses in the Professional Development Institute, the Writing Workshop, which was based on the National Writing Project's model for teaching writing. Teachers experienced different writing stages, such as prewriting, drafting, revising, editing and publishing. Findings indicate that despite the exposure to more traditional patterns of writing in English in experienced teachers in college, when exposed to more reform-oriented strategies that required them to think rather than reproduce similar texts, in-service teachers benefitted from this professional development as they have "found" their voice. Even a short exposure can sometimes make an impact on teaching strategies, however, the authors urge that even if exposed to different instructional strategies, when returning to their teaching context, these teachers may not be able to apply what they have learned.

A study (Liu & Qi, 2006) of two similar teacher education programs in China and the USA, from the perspective of their length of time, degree offered and university history, reveals the fact that despite these initial similarities in the two public universities, one of the most important differentiating factors is the amount of time dedicated to subject matter knowledge vs. practicum experiences in these two programs. In the Chinese university, students are required to spend more time on the subject matter learning, while in the US program, students spend more time in the study of pedagogy and practicum. A well-balanced teacher education program, rich in both theory and practical experiences, seems to be the key for preparing effective teachers. By preparing students to establish a solid theoretical base and by creating opportunities for teachers to incorporate the theories and practices they appropriated in the teacher education programs into their current practices, it would diminish the classroom shock for beginning teachers and enable them to create rich learning environments for their students, congruent with the constructivist principles assumed to improve student learning (Darling-Hammond, 2000; Darling-Hammond et al., 2002). On the other hand, if teacher education programs do not expose pre-service teachers to reform-oriented teaching strategies, beginning teachers tend to fall on the teaching practices common in their apprenticeship of observation (Lortie, 1975).

Methodology

Context and Participants

As part of a teaching summer camp organized in Guangzhou, China, in the summer of 2005, three US teachers taught English to pre K-5 Chinese students. The US teachers were pursuing a Ph.D. in education at a US Southwestern university. They all had at least five years of K-12 experience in the US schools. During the months of teaching in China, these teachers were all assigned a Chinese English teacher to collaborate with them while preparing the classes. The US teachers taught subjects, such as English conversation, US culture and history, P.E., music and arts to 2nd-8th grade Chinese students. The US teachers met daily with their

Chinese peers, usually in the morning, before the school day started to go over the lesson plans for the day, explaining to the Chinese teachers how these lessons would be taught, what materials and strategies would be used and what support the US teachers expected from their Chinese peers. The Chinese teachers were not teaching in the class, but providing support to the US teachers in planning the lessons and enabling communication with the classroom students. The four Chinese teachers in the study were in-service teachers, having Bachelor degrees in English education and having taught for at least one year at K-12 level in China. In terms of age, five of the seven candidates were in their twenties, and two were in their early thirties. Gender-wise, only one of the participants in this sample was male (Chinese). Both researchers were part of the US team who taught English in this summer camp. Only the second author became a participant, as the first author had completed her undergraduate education in Romania (see Table 1).

Table 1

American and Chinese Teachers' Educational Experience

Nationality	Teachers	Highest education degree	University graduated from	Years of teaching
Chinese	Jane	BA	Normal University	1
Chinese	Joann	BA	Normal University	1
Chinese	Jojo	BA	Normal University	1
Chinese	Rex	BA	Normal University	1
American	Brittany	MA	Traditional Teacher Education program	12
American	Charlotte	MA	Alternative Route program	6
American	Tiffany	MA	Traditional Teacher Education program	5

The participants of this study experienced two different teacher education programs. In the USA, teachers are faced with a diverse population, and thus the challenge is to ensure successful learning and reach all the students who bring different learning styles and levels of knowledge in the classroom, which requires teacher educators and teachers to “become diagnosticians and planners who understand the learning process and have a large repertoire of teaching methods at their disposal” (Darling-Hammond, 2000, p. 102). As such, teachers need to develop practices that are learner-centered, which focus on the needs of individual students, engaging students in discovery learning by arranging “suitable conditions that allow students to be involved in the learning process” (Al-Weher, 2004, p. 170). By fostering participation in class discussions, debates and problem-solving, teachers aim at developing critical thinking skills that enable students to become independent learners. Constructivist environments emphasize participatory learning and have been found to have more influence on teachers' practice than conventional teachers' education programs (Tatto, 1998).

If this is the case, are teacher education programs in the US consistent in the courses they offer in preparing teachers as “diagnosticians and planners”? If a change in the candidates' beliefs is possible, and if constructivism and change are interrelated, how are the teacher education programs preparing prospective teachers to teach in ways they may have not experienced as students? Moreover, will these newly acquired beliefs about teaching and learning transfer in the classroom, or when faced with the classroom realities, will the teachers revert to more familiar practices?

In China, on the other hand, English curriculum has emphasized the implementation of the English Language Curriculum Standards in 2001 (Zhan, 2008). The aim of these standards were to enable teachers to move from a traditionalist way of teaching English through memorization and drilling towards a more progressive way of teaching, offering opportunities for students to engage in discovery learning. Despite these

efforts, Chinese English teachers are still facing challenges in their classrooms, due to an inappropriate curriculum of the normal universities and to an ineffective practicum (Zhan, 2008). These more conventional teacher education programs are designed to help teachers learn to teach to fit into pre-existing school structures, with the teacher being the authority source and the students mere recipients of information (Tatto, 1998).

This study tries to answer the following three research questions: (1) Did the different teacher education programs influence the participants' philosophies of teaching? (2) What beliefs and attitudes about teaching and learning did the seven teachers develop as a result of the exposure to these programs? (3) How comfortable were these teachers with implementing constructivist strategies in their classrooms?

Limitations

One limitation of this study was the small number of participants, as only seven teachers were included. While the researchers understand that the seven participants may not be representatives for the teacher population of the two countries, their different educational backgrounds are valuable in providing insight into the beliefs, attitudes and teaching practices of teachers in both countries. One US teacher was the graduate of an alternative route to education program, while the other two US teachers graduated from more traditional teacher education programs. Their Chinese counterparts were also graduates of different teacher education programs, learning teacher-centered and student-centered teaching because of different teaching methods contributed by foreign professors. Another limitation was the limited data source, since the data came only from one interview with the participants. Researchers conducted an extensive interview with each participant in order to collect more meaningful data.

Data Collection and Analysis

In order to understand the impact of the different teacher education programs on the seven participants' teaching philosophies and classroom practices, participants were interviewed once regarding their beliefs on teaching and learning and the experience they had at the university level. The special strength in interviewing in qualitative research is the opportunity to learn what you cannot see and to explore alternative explanations of what you do see (Glesne, 1999). Interview was conducted with the purpose of collecting data, while searching for opinions, perceptions and attitudes about the same topic.

The questions included in the interview were geared towards having teachers discuss how their experience as students impacted their teaching philosophy and classroom practice. The interview had 17 open-ended questions. In the first part of the interview, participants were asked questions about their educational background, their views on the most important types of instruction and the role their university professors had on their learning. In the second part of the interview, teachers were asked to provide a brief definition of constructivism and state whether or not they considered themselves constructivist teachers, explaining what techniques they used to teach concepts to students. This interview enabled the researchers to identify the teachers' beliefs about teaching and learning and account for how these beliefs were relevant to the teaching strategies they used.

The interview data were analyzed using a discourse analysis approach. Three major themes were constructed from the data as they were relevant to all the participants: (1) teaching philosophy; (2) constructivism vs. traditional teaching; and (3) balance of theory and teaching strategies. The seven teachers were analyzed from these three different perspectives. The researchers accounted for differences as well as similarities between participants.

Results

Philosophies of Teaching

The Chinese teachers. Our initial assumption was that being exposed to similar curriculum and instructional strategies at the normal universities, the Chinese teachers (the names of all the participants in this study are pseudonyms) would have been the products of similar teaching philosophies. Consequently, the four Chinese teachers would have similar philosophies of teaching, whereas the US teachers, exposed to different teacher education programs, would have developed more varied teaching philosophies.

When asked about their philosophy of teaching (the way they conducted classroom instruction and what teaching strategies they considered most effective), the Chinese teachers emphasized the importance of group work at the elementary level. Although they were not exposed to a lot of group work as students, the teachers responded that in order to reach very young EFL students, collaboration between students was necessary. Active learning was also believed to have a particular influence on students' acquisition of English. The four Chinese teachers discussed different examples of active learning strategies which they used in their classrooms, such as using games and songs to teach words, using pictures and words to teach the language, using simple vocabulary and body language, as well as listening and miming, drawing or pointing to teach simple concepts. Jane, one of the teachers, stated in her interview: "I think the English teacher must be active, you should provide a lot of things that the children like to do. So during recess, I usually ask the students, 'What things do you like to play?' and they will give me suggestions and I will follow." Jojo stated in her interview that in order to teach concepts students might face problems with, the teacher needed to appeal to simpler ways to teach those concepts: "You can use simple words, simple vocabulary to teach them. Also, you can use the body language and some pictures to make them understand."

Joann, another teacher, believed the traditional methods of teaching English through reading and writing were ineffective, as "kids do not like to read and write again and again, they like new things to catch their attention". Among those new strategies, she named singing songs, bringing colorful pictures, as "the kids would be interested and would like to learn". Rex, the male teacher, also believed in exposing his students to group work, which would enable them to be immersed in the learning process and learn by doing, "if you don't work, you don't know why things are the way they are."

Interestingly enough, only two Chinese teachers were exposed to active learning in their teacher education programs, when taught by foreign instructors. Jane and Jojo both stated that their English education courses typically allowed room for group work and discussions: "In class or after class, we had discussions, sometimes they gave us some titles and let us talk about those" (Jojo), "The foreign professors usually asked us to discuss one topic or something in the school book, and ask one student to be a representative and then talk about the group's ideas" (Jane). On the other hand, Jane's Chinese professors focused more on drilling students: "Usually, they will write down the most important things of the concept on the board, and then explain to us what it means, and then we are going to copy it and recite it, because these are important, maybe they will appear on the exam." Although limited, this exposure to active learning in college might have impacted Jane and Jojo's teaching philosophies, as they believed in the importance of active learning in their classrooms.

Rex and Joann, on the other hand, were only taught by Chinese professors and only exposed to a more traditional way of learning. As Rex stated, "We learned English through lectures, we did not have enough time for group work. Teaching and learning English through lectures was the most important thing at the Teachers'

College.” Similarly, Joann stated that as a student, she mostly listened to her professors: “Most of the time, college students in China just listen to the professor. If you are interested to learn more about a lesson, you can raise your hand and ask your professor. Before class, we may discuss in small groups, but in class you mostly listen to the professors.” Despite the exposure to a more traditional teaching approach in the teacher education classrooms, both Joann and Rex felt that while learning English in this way may have worked for them as adults, little children may learn better from being exposed to hands-on activities, which they both tried to incorporate in their classrooms. In their cases, the exposure to the teacher education classrooms did not entirely influence their teaching philosophy.

Some discrepancies appeared in the way the teachers portrayed their role in the classroom, female teachers emphasized more communication with their students and created a fun-learning atmosphere, while the male teachers emphasized more mastery of content. Jojo believed that the most important thing about being a teacher was “for you to have more energy and make friends with them, I think you can communicate with the kids.” Joann held similar beliefs about the teacher role, as she viewed herself as a very nurturing person. On the other hand, Jane viewed herself more as a facilitator of instruction: “Being active and learning from the students. Having students cooperate with each other, help each other and arrange for these situations, those are what make an effective teacher.” Notice the difference of perspectives in Rex’s response: “To be an effective teacher, you must have a great knowledge and then have the experience to teach in the classroom... You must know all the important facts about a concept. Then you will know how to teach the important things.”

From nurturers (Joann and Jojo) to facilitator (Jane) and information giver (Rex), the four Chinese teachers had different teaching philosophies and perceptions of their teacher roles; these perceptions that may have been influenced by the exposure to their teacher education programs. Rex’s belief that a teacher must be well-informed may be linked to his experience in the teacher education classes, where his instructors provided them with the knowledge necessary to learn English through lecturing. On the other hand, Jane experienced both a traditional and more constructivist approach to English learning, viewing herself as a facilitator, while the other two teachers saw themselves as nurturers, as their professors reinforced concepts such as being friends with the students.

The US teachers. The researchers’ assumption regarding the US teachers was that due to the different teacher education programs they were exposed to, they would have different teaching philosophies. Two of the US teachers, Brittany and Tiffany, had completed typical teacher education classes, while another teacher, Charlotte, had completed an after-baccalaureate alternative program for people seeking to become teachers at an accelerated rate. While Brittany and Tiffany had experienced an assortment of teaching strategies that combined lecturing with some hands-on activities, Charlotte only experienced hands-on teaching techniques, where students were asked to create and share lesson plans.

When asked about their teaching philosophy, two US teachers emphasized the significance of active learning methods and the use of a variety of teaching strategies that promote learning, while one teacher viewed learning as setting certain rules in structured environments. Charlotte, the product of a hands-on alternative route program, where lecture was practically non-existent, viewed active learning as highly important, as she stated that she preferred “hands-on learning, and then from there go to a more text-book based approach.” On the other hand, Brittany believed in a mixture of lecturing with application of the newly learned concept: “Application would probably be the key... what they do is that they get the information and then we try to apply it.” Conversely, Tiffany described her teaching style as “a conglomeration of various strategies and

methods that evolves from year to year” and her instructional goal “To have some sort of instruction that appeals to all different kinds of learners. I set high expectations, and work to help students realize they can achieve at high levels. My philosophies and practices aim at helping students achieve and learn to learn.”

The discrepancies in the US teachers’ philosophies of teaching may result from the differences in their teacher education programs: Charlotte believed that teaching should be based on hands-on discovery; Brittany saw learning as the application of the newly learned concepts in practice; while Tiffany believed that teachers should have more structured environments and rules and be flexible within those parameters. Similarly, when asked about their role in the classroom, the US teachers had different views: Tiffany believed in a balance of delivering information as well as creating opportunities for students to apply the newly acquired concepts, with the teacher acting as the facilitator of the activities. This perception was undoubtedly influenced by her experience in the teacher education programs, where she was exposed to a variety of learning techniques. Charlotte believed more in helping her students gain a procedural understanding of the topics with the help of the hands-on activities, and then looking at the theory for support: “I personally prefer hands-on learning, start with the procedural and then go to the textbook,” as she had experienced in her teacher education programs. On the other hand, Brittany stated that her teacher education professors relied heavily on delivering information, “Most of my training was lecture, and then I went out and did research and I became effective in my 5th year of teaching, and it was more my research than the application of what I learned in my teacher education classes.” Brittany thought of herself as being “knowledgeable about a lot of things, caring about my students and being available for the students.”

The common belief for all seven teachers seemed to be the need for active learning for all students (elementary, middle school, EFL or English speakers). However, due to the nature of the teaching context (elementary school), the Chinese teachers seemed to emphasize more than the US teachers the significance of learning through playing, as all four Chinese teachers stated active learning worked best in the elementary environment. Only one US teacher believed active learning to be the key for effective instruction, while the other two teachers believed more in using a mix of lecturing and hands-on activities to enhance learning. As the above discussions show, all seven teachers were very concerned with making learning meaningful for all students. Slight variations in their teaching techniques showed their attempts to cope with these issues. Whether it was through communicating with the students, through adopting a lot of learning styles that some teachers did not experience as students, or through possessing solid background knowledge and applying this knowledge into practice, all teachers attempted to meet their students’ needs to the best of their abilities.

Constructivism vs. Traditional Teaching

The Chinese teachers. The theme that characterized the Chinese teachers’ experience as students in college was a mixture of traditional and constructivist learning environments. Two teachers confessed they were mainly exposed to more traditional methods, while the other two experienced both a constructivist teaching approach (when taught by foreign professors) and a more traditional learning environment (when taught by Chinese professors).

Jojo described the environment in her college as constructivist, where the professors used group work and discussions to teach the new concepts. Similarly, Jane stated that the foreign professors were leaning more towards discussions: “The foreign teachers taught us how we can express ourselves, we can think about a lot of things, we do not just focus on the books,” while the Chinese teachers were focused more on the textbook: “We just focus on the textbook, everything is focused on the textbook.” The Chinese professors’ model of

instruction was to explain, summarize the most important concepts and then write them on the board, while their students would take notes and listen to the professors. Rex had a similar experience in his college classes, as he described a typical English class containing explanation and summary: "Sometimes, they explain it, that's one way, and the other just summarize it. We find out the basic thing about a concept, we find out what the concept means and we learn it." Similarly, Joann stated that she experienced a more traditional teaching environment: "Before teaching a lesson, most instructors introduce the background about this lesson, and then teach some difficult words and some difficult grammar parts. After this, they will check your listening and your grammar, so they just teach in this way."

The experiences the four Chinese teachers had in college were more different than expected by researchers. How did these experiences impact the way the Chinese teachers taught in their classrooms? Were the teachers exposed to traditional learning environment in college more likely to maintain this environment in their classrooms? Conversely, were the teachers exposed to constructivism in college more likely to use these approaches in their classrooms?

When asked to describe their classroom practice, Rex and Joann, the products of a more traditional teacher education program, stated that their practices were more traditional, creating some opportunities for their students for group learning and hands-on with the teacher still being in control of the classroom most of the time. As Rex stated, "In primary school, children are too young to construct knowledge, maybe in college they can, but when they are young, you need to teach them." Similarly, Joann stated that she believed that her exposure to student-centered strategies through this summer camp and her collaboration with the US teachers, would help her become a better teacher, and she stated that she would be open to integrating these approaches into her teaching: "I have learned a lot of new teaching methods in this summer camp that I would like to use in my class."

On the other hand, due to their exposure to constructivist environments, Jane and Jojo stated that they felt confident enough to implement these approaches into their classroom. Describing what goes on in her classroom, Jane stated, "As a teacher, most of the time I use a story to guide them to get what I am going to teach. When I finish the story I would write a sentence on the blackboard and they know what it is and usually we would present the story, role play, and they will know it, and it's easy." Jojo also stated that she used active learning in her classroom: "Instead of lecturing to the students, you give them the basic knowledge, and then you help them build upon it themselves. So they are active in their learning, you guide them, but they learn through discovery."

Consequently, despite a centralized curriculum at the normal universities, the Chinese teachers had slightly different experiences as students. As the above discussion revealed, teachers who were exposed to traditional classes tended to use the same approaches in their teaching, while teachers who were introduced to other teaching methods were quite confident to implement those new approaches into their classrooms. These findings support the apprenticeship of observation theory (Lortie, 1975), as beginning teachers tend to adopt the teaching practices they are most familiar with. This may be the cause of the teachers' weak knowledge of theories about language learning and child development (Zhan, 2008), as it may be the case for Joann and Rex. The other two teachers, Jane and Jojo leaned more towards using the constructivist practices they have encountered as part of their teacher education programs. Such practices may have been reinforced throughout their student teaching experiences.

The US teachers. The researchers began the analysis of the US group with the assumption that the more

teachers were exposed to constructivist learning environments as students, the more likely they were to foster discovery learning; the more they experienced traditional classes, the more likely to become traditional teachers. Two of the US teachers underwent typical education programs to become teachers, while one of them followed an alternative route, which exposed Charlotte to a very hands-on learning approach. When asked about the effectiveness of this education program, Charlotte replied that she felt this program prepared her well to become a teacher, as she designed strategies that enabled her students to be actively engaged in learning: “I use investigations, where you give them materials and from them you ask questions and then you guide them, but you help them get the answers somehow.”

Brittany, on the other hand, who stated that she had experienced a more traditional education program, focused on lecturing: “Most of it was lecture, and as students we were mostly sitting.” She, therefore, did not consider herself as a constructivist teacher: “I believe in building on students’ knowledge, I do not think we can get anywhere without it, but I like to guide my students more in the direction that I like them to grow into.” Brittany’s teaching methods matched her beliefs about what made an effective lesson: “Students receiving the information and then applying it to make sure they understood the new concepts.”

Tiffany had mixed experiences as a student, being exposed to both constructivist and traditional teaching strategies, experiencing various teaching styles and teaching methods. The exposure to these two learning environments enabled Tiffany to see herself as a semi-constructivist, implementing in her classes what she saw worked for her as a student:

Given fewer standardized tests, a less rigid curriculum guide, I believe I would be more constructivist. I have not yet discovered a way to provide enough motivation that would result in students learning, all that is required of them to learn in a given year. I try to utilize semi-constructivist activities within the established framework set out by the district.

In the case of the US teachers, too, teacher education programs seemed to have a direct impact on their classroom practice. More traditional learning environments brought about by teachers (Brittany) who were comfortable to use the techniques they experienced as students, even if they also had experienced other methods of teaching. This reliance on more traditional practices, despite some exposure to more constructivist practices, may be the cause of a weaker theoretical knowledge of learning and development in the teacher education classes (Kroll, 2004). Conversely, programs that exposed their students (Tiffany) to more constructivist learning produced teachers who were open to actively engaging their students in the learning process.

Moreover, programs in the same country had a different impact on their teachers. The US teachers, when exposed to an atypical learning environment (teaching abroad), seemed to fall back on what was familiar to them, that is constructivist learning or more structured activities. On the other hand, while paired up with foreign teachers whose teaching philosophies did not necessarily match their own, the Chinese teachers’ beliefs about teaching and learning were challenged, and some of them stated that they were thinking about incorporating some of these practices in their future teaching (Joann). However, researchers (Andrew, 2007; Spalding et al., 2009) caution that there are no guarantees that even when exposed to such practices during their teacher education programs or in professional development, teachers will use them in the classrooms, due to the shock of the classroom realities.

The Importance of Theory and Teaching Strategies

The Chinese teachers. Another important theme investigating similarities and differences in the teachers’ beliefs about learning and teaching and their application in the classroom was the significance of theory and

teaching methods. The teachers were questioned about their beliefs regarding the importance of both theory and practice in teaching and learning. All Chinese teachers stated that there should be a balance between learning about theory and methods, as they believed that one (theory) informed the other (methods). Jane, for example, stated: "They are both important. First, you learn theories, then you know how to do it in the training. If you don't have the theory to guide you to the training, you will miss the road."

Similarly, Joann thought it is important to be exposed to theory, because people think in different ways and one can benefit from the exposure to these different perspectives. In turn, theory provides the background for teaching better, as Joann confessed: "I think it is important to know the background. I think it is important to understand the lesson very well and the teaching methods.... The kids will learn more and you will be able to teach them better." Rex also stated that theory is very important in connection with teaching methods: "I think theory is very important in the school. I think that if you know the theory, it will really help you". Jojo also discussed the benefits of being exposed to both theory and teaching methods, as one can learn from the way other people think: "Learning theory is very important. People think differently, and by being exposed to different concepts, we can learn a lot."

The US teachers. The US teachers had different views about the importance of theory and methods. Some viewed both theory and methods as equally important, while others viewed methods more important than the theory. For example, Brittany confessed that although theory helped her a lot in her teaching, she believed that a teacher could get away without theory: "The reality is that you can teach without theory. You need the methods, it helps you better understand why you are using them, and I think that if you understand some of the theory behind that method, that helps you. But you can teach without theory."

Similarly, Charlotte believed that teaching methods prevailed theory. Although her program exposed her to a little bit of theory, Charlotte stated that she no longer remembered any of the theory, but the teaching methods stayed with her: "I don't remember any of the theory, we had some theory, but it wasn't a lot. I think that there should be a little bit of theory, but it should mainly be about methods. I think it should be less theory and more practical." On the other hand, Tiffany believed in the importance of teaching both about theory and teaching methods, as one informed the other: "If one is aware of theories, they are able to test them and implement them to analyze their usefulness. Exposure to theories helps educators form a basis on which to build and enhance their own teaching styles and methods to best serve their students."

The above findings reflect the differences of perspective, as all of the Chinese teachers and only one US teacher (Tiffany) attributed a great significance to both theory and teaching methods, while Charlotte and Brittany believed that one could teach without theory. The impact of the program attended was visible on teachers' beliefs about learning and teaching and their classroom practice, since teachers who were mainly exposed to teaching methods with minimum amount of theory in school (Charlotte) believed that teaching methods prevailed over theory. On the other hand, some teachers regarded theory and practice as interdependent (Tiffany, Jane, Jojo, Joann and Rex). Of particular interest was the case of Brittany, who, although having been mostly exposed to theory as a student, believed that learning about methods was more important than learning about theory.

Discussion and Conclusion

Our initial assumption was that students who experienced similar educational programs would develop similar beliefs about the nature of learning and teaching (Chinese teachers), while students who were exposed

to more diverse educational programs would hold diverse beliefs about the nature of education and would be more likely to use diverse teaching strategies (the US teachers). Findings revealed that, even in the case of a centralized curriculum (China), teacher education programs exposed their students to a variety of teaching strategies. This is the case of Jane and Jojo, who witnessed constructivist approaches to education and stated that they felt comfortable enough to use those strategies in their classrooms. The other Chinese teachers (Rex and Joann), who were exposed to a more traditional education program, stated that they relied more on traditional approaches. On the other hand, the US teachers had different experiences as students, two of the three US teachers experienced different education programs. From the US group, Tiffany's experiences and beliefs about the nature of teaching and learning matched more with two of the Chinese teachers' beliefs (Jane and Jojo) than that of the teachers in her group.

In terms of similarities, all seven teachers agreed that, in order for learning to occur, students needed to be engaged in group work. Chinese teachers emphasized learning through playing more than the US teachers. Most of the teachers also agreed that learning about theory was highly correlated to learning about teaching methods, as theory informed the methods teachers were using in their classrooms. Differences in beliefs were stronger in the US group, as two of the teachers believed teaching methods prevailed theory.

This study enabled the researchers to compare and contrast seven different educational backgrounds and perspectives and to analyze the impact of the university programs on the participants. First, our findings showed that university training had impact on all participants' attitudes about learning, as well as their teaching practices. The participants' beliefs about learning and teaching were consistent with the practices they were exposed to as students, that is more constructivist in nature or more traditional. This is the case of both the Chinese and the US teachers. This comes to support the rich literature findings on the impact teacher education programs have on their graduates (Darling-Hammond et al., 2002; Tatto, 1998). The conclusion to the above-mentioned findings are therefore that, while exposed to a theoretical knowledge of learning and development in the teacher education classes, and supported by rich student teaching experiences, teachers adopt those practices required to become diagnosticians and planners they need to be in order to deal with the realities of today's diverse classrooms (Darling-Hammond, 2000; Darling-Hammond et al., 2002). And if these qualities are embodied in the constructivist theory of learning, as seen in the above-mentioned cases, a longer exposure to constructivist practices has a definite impact on teachers.

Second, findings also show that teachers from the two countries were more similar than different. Chinese teacher education students may be exposed to diverse teaching strategies that may have a strong impact on their classroom practice. Brittany (the US teacher) and Rex and Joann (the Chinese teachers) held similar beliefs due to their exposure to similar teaching strategies in their teacher education programs, not necessarily to the same curriculum. Teaching strategies also accounted for similarities in the other two US teachers (Tiffany and Charlotte) and Chinese teachers' beliefs (Jojo and Jane). However, as evidenced in Joann's interview, if provided with challenge and exposed to some constructivist principles, some teachers are willing to incorporate these new practices in their teaching, showing that even short-term interventions may impact teachers' beliefs.

To conclude, the above-mentioned findings suggest that the impact of teacher education programs on teacher candidates is very significant. The implications of these for administrators and course instructors may be equally significant: If the challenge is for teachers to develop the skills necessary to meet the challenges of the diverse classrooms, and learn to teach in ways they were not exposed to as students, then they need to be guided into changing their beliefs (Ball & Cohen, 1999), which will enable them to refine and improve their

instruction (Darling-Hammond et al., 2002).

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