

## **Pre-service CSL Teachers' Field Experience in the Real and the Virtual Worlds\***

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### **Abstract**

This paper aims to describe the field experience of the prospective teachers of Chinese as a Second Language (CSL) in the pre-service teacher training programme, regarding the similarities and differences of pedagogic skills between the conventional classroom and Second Life. There were two student teachers recruited from National Taiwan Normal University majoring in Applied Chinese Language and Literature (ACLL). Both reflected on how they made pedagogical changes in relation to the extent of the consciousness-raising, decision making and perception towards the two environments. In the student teachers' reflection reports, there have identified a number of significant pedagogical features that accounted for the differences and similarities between the real and the virtual worlds, namely, tasks, skills and resources, classroom management and teaching methodologies. The preliminary results derived from the post-teaching interviews confirm that, to some extent, the prospective teachers' pedagogical knowledge was influenced by their previous experience (e.g., foreign language learning). Besides, the findings reveal

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that the student teachers felt more confident in the face-to-face context than in the virtual environment in terms of their pedagogical knowledge and skills, e.g., conducting activities, and managing students' conduct. The teachers' knowledge transferred from the real to the virtual world has implications for teacher education.

**Keywords:** Second Life, Chinese as a Second Language, Pre-service Teacher Training, Reflective Practice

## 1. Introduction

Field experiences in teacher education play a pivotal role in helping student teachers gain or improve professional knowledge, as they allow the student teachers to develop the effectiveness of teaching (Grable, Kiekel, & Hunt 2009). Such practical experiences are even more important in a context where integrates technology into classrooms, such as online learning and distance education (Grable, Kiekel, & Hunt 2009). Hence, hands-on experience gained from the pre-service teacher training is crucial to develop their confidence and competences in online teaching (Bennett & Marsh 2002). However, this cannot be understood without exploring the learning processes during the pre-service teacher training due to which it involves the pre-service teachers' early learning experiences and their new teaching experiences (Almarza 1996).

Recent years have seen an increasing attention being paid to the computer-mediated communication (CMC), c.f. Levy, Wang, and Chen (2009), Compton (2009), and Warburton (2009). Based on CMC, online and distance learning have become viable as enabling those who cannot physically attend courses or classes taking place in face-to-face traditional classrooms (Bennet & Marsh 2002; Grable, Kiekel, & Hunt 2009). In light of this, a three-dimensional multi-user virtual environment (3D MUVE) like Second Life (SL) allows participants to 'interact through motional use of avatars of synthetic characters that can be personalised in the greatest detail' (Molka-Danielsen & Deutschmann 2009:14). In addition, SL is used for educational purposes as it is technical, immersive and

social (Warburton 2009), where users in the virtual community interact with each other synchronously via various means of communicational conventions, say, spoken and written, which are similar to the real world (Cheong 2010). Indeed, there have some research studies in the inter-disciplines and CALL to examine the effects of Second Life on how such a virtual world environment can best help students' learning, Jarmon, Traphagan, Mayrath, and Trivedi (2009), Wehner, Gump, and Downey (2011), Chen, Lee, Wang, Chao, Li, and Lee (2012), Henderson, Huang, Grant, and Henderson (2009), Peterson (2010), and Jauregi, Canto, de Graaff, Koenraad, and Moonen (2011). However, to the best of our knowledge, there is no existing research to document pre-service CSL or CFL teachers' learning experiences in terms of the acquisition of the target skills or techniques in different environments.

In online pre-service teacher training, although there are some commonalities, such as giving instructions for classroom activities, between the traditional and the virtual contexts, pedagogical knowledge and skills, say, using online tools to conduct learning activities, needed to teach in the later context, are hugely different from those required in the former (Hampel & Stickler 2005). As such, those challenges face prospective teachers pedagogically, socially and technologically. In spite of the fact that helping pre-service or in-service teachers develop technical skills consciously to deal with pedagogical and technological challenges is important (Bennett & Marsh 2002). However, pre-service teacher training in language education in both physical and online classrooms has long been overlooked (Almarza 1996; Hampel & Stickler 2005; Levy, Wang, & Chen 2009). Hence, this study attempts to bridge the gap by examining the pre-service CSL teachers' pedagogical knowledge in the traditional and virtual classrooms whereby they modify their instructional use according to the constraints in the virtual environment, e.g., lack of verbal or physical clues. It is intended not to give an exhaustive description of lessons designed and implemented in this study, or to compare the effectiveness of the teaching approaches, such as Total Physical Response (TPR), nor to assess the language skills of the participating students of CSL. Rather, it is concerned with the relevant knowledge gained through the critical reflection done by the student teachers to provide an emerging view of

how they adapt the techniques and resources used in traditional classroom into the virtual world.

## 2. Literature Review

To acquire a set of relevant pedagogical knowledge and technical skills necessary to teach online is emphasised by some scholars and researchers. For instance, in the Skills pyramid, proposed by Hampel and Stickler (2005), there are seven levels of skills that account for an online tutor's competence: basic ICT competence, specific technical competence for the software, dealing with constraints and possibilities of the medium, online socialization, facilitating communicative competence, creativity and choice and own style. The lower levels are needed to be required before a higher level skill. Apart from the general ICT and sufficient technical skills, Bennett and Marsh (2002) suggest that new tutors should be able to identify the major differences and similarities between the face-to-face and the online context, and pedagogical strategies and techniques in order to conduct effective online teaching.

The pedagogical knowledge or skills may mean a wide range of linguistic and pedagogical knowledge, or even teachers' decision making. More specifically, there are two levels of student teachers' knowledge in relation to theoretical and classroom activities (Almarza 1996). The former refers to personal ideology of student teachers, such as their ideas and opinions about language, teaching, and so on, as this involves decision making (Richards & Lockhart 1996), including planning sets of language activities prior to the class taking place or making immediate decisions during the lesson. In the latter, the knowledge means classroom tasks or pedagogical instructions. Together with the knowledge and selected learning experiences that a prospective teacher brings into the classroom come into play.

Pre-service teacher training research on Second Life which directly relates to the current study like Cheng, Zhan, and Tsai (2010) emphasises the skills needed to teach in the virtual worlds which can vary, e.g., building graphic objects (e.g., boxes that contain language tasks) that permit the avatars (or animated characters) of students to interact with. The aim of their study has focused mainly



on exploring the pre-service CFL teachers' insights into the pedagogical challenges, such as coping with technical difficulties and conducting language tasks in Second Life. They suggest that to develop skills to resolve technical issues is to enhance effective teaching in the virtual environment. In a non-language teaching context, Cheong (2010) found that practice teaching in the virtual world helped enhance the pre-service teachers' teaching experiences and self-efficacy due to reducing the stress or embarrassment and shyness in the virtual world where they are represented by the animated characters.

Thus far, the complexity of the online teaching has appeared difficulties determining what skills or knowledge new teachers should learn to cater what their students need. As Harrington, Quinn-Leering, and Hodson (1996:25) state, '[I]t is impossible to give students of teaching all they need to know to engage in the culturally diverse and complex human encounter that teaching has become, meet the needs...' Indeed, to 'foster the habits of mind and dispositions that will lead them to reflect critically on the practice of teaching on an on-going basis, therefore, has become increasingly important.' Hence, to help prospective teachers prepare new challenges for online teaching, amongst many other things, reflection has a great impact on the professional knowledge development, as it allows a person to restructure her previous experience (Korthagen 1985) and theoretical knowledge to enhance 'each area of expertise more effectively' (Knezevic & Scholl 1996:79). Learning process cannot be understood fully without looking at a teacher's awareness through interaction between language use and decision-making (Walsh 2003).

The process model of reflective practice in the face-to-face classroom, proposed by Walsh (2003), drawing on the social constructivist theories, such as Lantolf and Thorne (2007), involves several classroom modes in English as a second language (ESL) context, each mode which relates to pedagogical goals and interactional features determined by teacher's utterances. For example, in the managerial mode, it is primarily concerned with a teacher's language use in relation to organising activities, such as giving students instructions for classroom activities and introducing or concluding an activity. Likewise, a conceptual framework in a learning process (Almarza 1996) relevant and useful to structure

our ideas and concepts of this current research, that emphasises teachers' thinking and socialization that influence teaching as student teachers tend to 'recall and build upon their own experiences in classrooms' (Almarza 1996:51). She further states that knowledge built based on his/her prior learning experience seems to constitute a more powerful influence than teacher education programmes on the process of learning. Based on her conceptual framework, Almarza (1996) suggests that student teachers' pedagogical knowledge interacts with their previous learning experience and that to explore what experiences influence their teaching can enhance the process of learning while undertaking the pre-service teacher training programme.

Motivated by the existing studies, such as Almarza (1996) investigating student teachers' knowledge growth, and Levy, Wang, and Chen (2009) focusing on the process of developing skills and techniques of the online pre-service teachers, this study attempts to answer the research questions as follows: How does the previous learning experience of the student teachers relate to their pedagogical knowledge? According to the pre-service CSL teachers' self-reflection reports, what are the significant features of the differences and similarities in the conventional classroom and SL?

### **3. Method**

#### **3.1 Participants**

Two CSL female student teachers were Jessica and Joan (as their pseudo names in order to protect their privacy) participated in this study voluntarily. They were 21-year-old students at the Department of Applied Chinese Language and Literature (ACLL) at National Taiwan Normal University and spoke Mandarin Chinese as a mother tongue. Both were competent users of ICT due to some modules that they undertook having helped them acquire the ICT skills and the experience of online CSL peer-teaching.

This study also involved 17 participating students of CSL who were preparatory academy students at the university with multi-cultural backgrounds, such as Vietnam, Japan, and Indonesia. At an elementary level in Chinese, they were randomly divided into two groups (A and B) and this resulted that 8 students

(M/F=4) were in Group A (the conventional classroom) and 9 students (M=6, F=3) were in Group B (SL), see Table 1.

Table 1: CSL Teaching Lessons in the Conventional Classroom (CC) and Second Life (SL)

Session/ environment	1-2		3-4		5-6		7-8	
	CC	SL	CC	SL	CC	SL	CC	SL
Length of lesson (hour)	1	1	1	1	1	1	1	1
Teaching approaches	Total Physical Response (TPR)		Audio-lingual Method (ALM)		Task-based Ap- proach (TBA)		Cooperative Learning (CL)	
Topics	'How to get there'		'How are you feel- ing?'		'Ordering food'		'Movies'	
Name of stu- dent teachers	Jessica		Jessica		Joan		Joan	
Group	A	B	A	B	A	B	A	B

### 3.2 Instruments

The research adopted three main instruments: 1) a lesson plan contained detailed descriptions, e.g., date, content, objective(s), and implementation steps of a lesson, see Appendix A; 2) a student teachers' written reflection report was structured according to the implementation steps of a lesson taking place in the conventional and the virtual classrooms, see Appendix B. Each step in the matrix table included its pedagogical objective as well as its major dimensions, such as designed activities, teaching materials and comments, to be identified as the similarities and differences in the face-to-face setting and Second Life; and 3) a post-teaching interview was devised with two parts, namely, the first contained three semi-structured questions: a) Can you talk about your previous FL learning or teaching experience? b) Can you tell us about your teaching experience during the teaching practice in the conventional and virtual classrooms? c) What was the most challenging part of teaching in the virtual classroom? The second part asked the student teachers to rate their teaching on a 5-point rating scale: 1-5, from extremely unconfident to extremely confident, in relation to the three main features (tasks, skills and resources, teaching methodologies and classroom management) which were identified in their reflection reports.

### 3.3 Research Design

The design of the pilot study in the pre-service teacher training programme included two stages, namely, the training and the teaching stages. In the first stage, a series of workshops were arranged and considered relatively necessary to enhance their knowledge, such as teaching approaches in L2/FL and the tools provided in Second Life. 8-week face-to-face workshops with 16 hours in total were organised at a language lab at the university, a two-hour session in a week, where the student teachers met an experienced tutor of SL and an expert in Applied Linguistics. In the first four weeks they familiarised themselves with the tools and functions provided in Second Life, from choosing their own avatars to using a 'notecard' to send a message; in the remaining weeks of the workshops, they were taught with teaching approaches, e.g., task-based approach. More specifically, each tutor demonstrated teaching techniques in a training session, say, making notecards in SL or presenting a grammar point in the conventional classroom, and then the student teachers performed 5-10 minute peer-teaching in a given environment in the following session. Immediately after the short teaching, tutors each provided feedback on their teaching practice. By doing so, the student teachers had an opportunity to practise the chosen approaches in the traditional and virtual environments. It is worth mentioning that this study focused on the teaching of the student teachers in two different environments taking place in the second stage where the data collection of this present study started.

In the second stage, the student teachers each had conducted four-hour teaching sessions, as can be seen in Table 1. Sessions 1-4 were taught by Jessica whilst Sessions 5-8 were taught by Joan. Every two sessions had one topic and one approach and were taught consecutively. For example, Sessions 1-2, Groups A and B respectively, were taught with the topic 'How to get there' and the approach TPR. Furthermore, the goals of the two lessons were to help the students understand the target words in Chinese and sentences through actions, such as 'walk,' 'run,' and 'jump,' 'walk to the table.' According to her lesson plan, Jessica divided the lesson into eight implementation steps, three main stages in each environment, including introduction to the lesson (the warm-up stage), demonstration of the action words and explanation of the classroom activities (the mid-

dle stage), provision of feedback on students' output (the closure stage); each step indicated estimated time, objectives and contents. For more detailed discussions, please see the section of Results and Discussion.

The approaches shown in Table 1 were adopted in hopes that helped the student teachers gain insights into the task design principles in L2/FL (Larsen-Freeman 2000; Hampel 2006) and carry out classroom activities in SL. As a result, there were four different teaching methods employed in this current pre-service teacher training programme, namely, TPR, ALM, TBA and CL. Note that a wide range of teaching methods was involved in this study as both TPR and ALM diverge from TBA and CL in terms of their principles or theoretical bases and task activities. In ALM, behavioural psychologists consider that L2/FL learning is about habit formation: language items are likely to be acquired through repeating them orally, where language learners mainly interact with their teacher in a classroom setting (Larsen-Freeman 2000). On the other hand, constructivists of TBA believe that target language is best learnt in authentic contexts and meaningful communication whereby learners interact with their peers when solving language problems (Larsen-Freeman 2000). Importantly, all approaches listed above which are usually implemented in traditional classrooms are available to be adopted in the virtual world.

### 3.4 Procedure of Data Collection

Prior to commencing this current investigation, we first held two seminars: one was for recruiting student teachers and the other was for students. For the former, it was arranged for all students at the Department and briefly explained our research interest and expressed our intent that we would need volunteers as our CSL prospective teachers. In the latter, it was organised in the two classes of 60 students. As a result, two student teachers (Jessica and Joan) and 17 participating students emailed us and agreed to accept the arrangements of this current research. Afterwards, one of the researchers met and obtained the consent of the student teachers and the CSL students to commence a series of activities in this research.

In Figure 1, four-week teaching practice sessions took place in two different environments. As stated briefly in the preceding section, one of the student teachers taught two hours in a week, one hour in CC and SL respectively; each was asked to plan her lessons ahead and to write reflection reports right after the teaching sessions. Thus, eight lesson plans and eight reflection reports were collected. Finally, the post-teaching interview was administered a week after the completion of the teaching sessions; the two student teachers were interviewed individually by one of the researchers and each person spent around one hour, two hours in total.

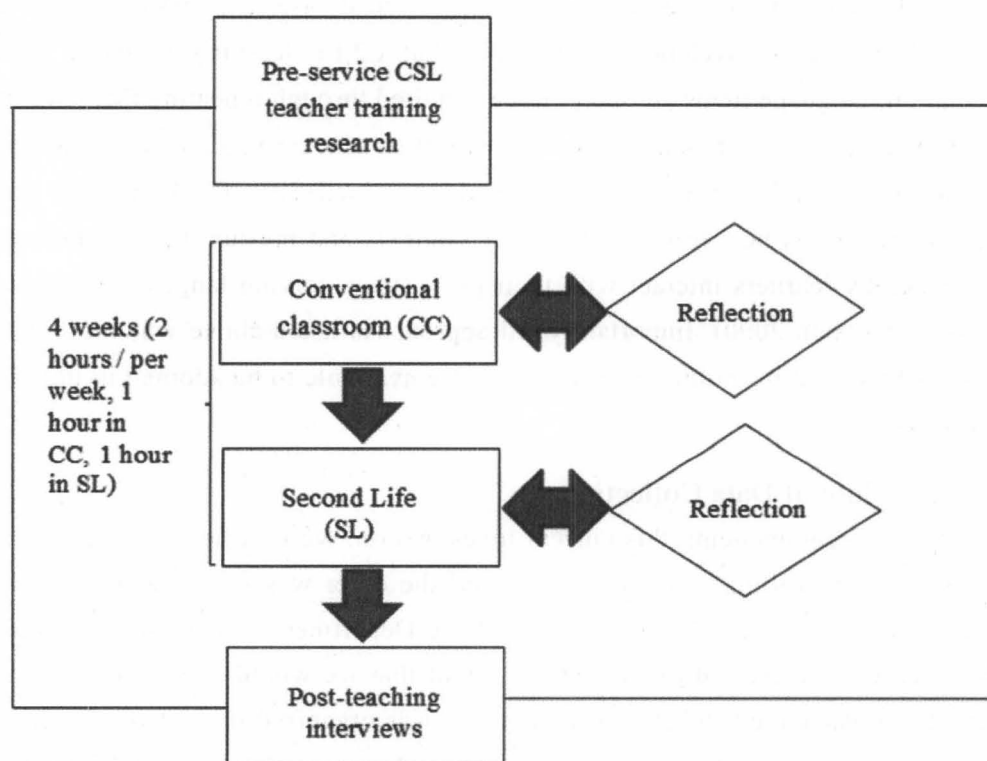


Figure 1: Procedure of Data Collection

### 3.5 Data Analysis

The data of lesson plans, reflection reports, and interviews were analysed employing a content analysis approach (Rosenberg, Schnurr, & Oxman 1990; Stemler 2001), determining the relevant concepts inferred from the written texts.

Three raters coded the data and identified the main features of the pedagogy, whereby one rater was the first author of this current study and the other two were the student teachers, Jessica and Joan, who were invited to be the inter-raters viewing and giving comments on the coded data.

#### **4. Results and Discussion**

This study examined the learning process of how the prospective CSL teachers consciously made changes suitable for the conventional and the virtual classrooms, in terms of their pedagogic knowledge and techniques during the pre-service teacher training programme. Results drawn from the post-teaching interview will be first provided, then the findings derived from the student teachers' lesson plans and reflection reports will be discussed, which categorise a number of discernible features that conceptualises the knowledge and skills developed throughout the teaching training programme.

##### **4.1 The Previous Learning Experience of the Student Teachers and Their Pedagogical Knowledge**

Drawn from the post-teaching interviews of the student teachers, the results reveal that both the CSL student teachers barely had teaching experience either in a face-to-face classroom or in an online environment, but had been learning more than one or two foreign languages, e.g., learning English as a core subject in the formal education system since they were 9 years old, and learning Spanish, French or Japanese for about two years. As being sophomore students of the course, they had experienced using JoinNet, a synchronous videoconferencing platform, to conduct a few-hours-peer-teaching session.

Due to the fact that the prior experiences in learning a foreign language and educational course had influenced their CSL teaching during the teaching practice, both of them who had had many of experiences learning foreign languages, brought their previous knowledge into the new teaching situations. For Jessica, she had been learning French when she was a high school student, and she had enthused ever since as had continued to learn this language at language schools. She expressed that learning French had a huge impact on her linguistic knowledge growth as she had been greatly influenced by the language activities



conducted in the French classroom. She was even aware of what teaching approaches her French teacher employed or what activities Jessica performed, as stated '*... I believe she [Jessica's teacher] has used... some kind task-based approach.... Umm... I think the activity we did is called information exchange... We discussed some questions and practised dialogues or performed role plays on the stage...*' Jessica also remembered that one of her Taiwanese French teachers adopted an immersive approach and used French for an entire lesson, e.g., explaining structures or vocabulary words, that might help students develop communicative competences in the language.

Unlike Jessica, Joan hardly remembered any teaching methodologies that her language teachers had employed when she learnt Japanese. However, she did mention that a lack of learning experience through the means of technologies or online resources had made her difficult to manage teaching in the virtual environment, as she stated '*After all, we are more familiar with the traditional classroom than with the online teaching... If we get some chances to observe how others teach online, we will be able to teach online more successfully.*' According to the recount, an individual's previous schematic knowledge or experience plays a significant role in a learning process.

In the preceding paragraphs, according to the post-teaching interviews, the previous learning experiences had influenced how the student teachers designed their classroom activities and this indeed helped them integrate what they learned before into the new teaching context(s), e.g., Jessica designed one of tasks in her teaching sessions based on the role play that she undertook in one French lesson when she was a high school student. This has proven that the teacher training programme had assisted them to develop their knowledge and skills by a means of conducting and carrying out the classroom activities, also helped them make the implicit knowledge explicit via the personal reflections. Such new integrated knowledge was built upon the prospective teachers' implicit knowledge (past learning experience) to have explored the theoretical aspects (their own ideological ideas) of the professional initiatives during the teaching practice. Besides, the aforementioned discussions remind us something like experienced teachers reflecting on their teaching; although beginning teachers do not have teaching

experiences, they are still have 'faculty to reflect' (Almarza 1996).

#### 4.2 The Main Features of Pedagogy in the Conventional and the Virtual Classrooms

There are several features of pedagogy which were identified in the student teachers' reflection reports in connection with the instructional awareness of the student teachers teaching in the two environments, such as teaching resources and skills. We first summarise both student teachers' teaching sessions in the two environments and then discuss one or two of the features in more detail.

#### 4.3 A Summary of Teaching Sessions of Jessica

Jessica taught first four sessions and adopted two teaching approaches of TPR and ALM. Table 2 presents an overview of the teaching procedures, each session containing three stages, namely, warm-up, middle, and closure. In the TPR lesson, a focus on which students responded the commands physically, she was first to demonstrate action words physically and then had students performed tasks in both environments. However, in SL she and her students used animated characters or avatars to carry out the actions. All of the language tasks or activities were done in a classroom setting whether in CC or SL. In the ALM lessons aiming on oral repetitions and drills, teaching in CC was differentiated from it in SL. When in CC, Jessica used teaching resources to demonstrate target phrases and sentences, such as hand puppets to play out a dialogue between a doctor and a patient, in an attempt to set up a scene. In SL, she first teleported students to the London Health Centre where her avatar demonstrated the dialogue by playing the two roles and then teleported the students back to the virtual classroom after the role play.

Table 2: Summary of Jessica's Teaching Procedures in CC and SL

		1 <sup>st</sup> Teaching Session (TPR) (Sequences of the Lesson)	3 <sup>rd</sup> Teaching Session (ALM) (Sequences of the Lesson)
CC	Warm-up	<ul style="list-style-type: none"> <li>• Getting to know students, e.g., introducing herself and talking about students' and her hobbies.</li> </ul>	<ul style="list-style-type: none"> <li>• Greeting students.</li> </ul>
	Middle Stages	<ul style="list-style-type: none"> <li>• Introducing the topic.</li> <li>• Modelling and miming the target items.</li> <li>• Students practiced orally and performed the designed activity.</li> </ul>	<ul style="list-style-type: none"> <li>• Introducing a dialogue between a doctor and a patient.</li> <li>• Presenting the target vocabulary words and phrases.</li> <li>• Students drilled the dialogue and were engaged in the role-playing.</li> </ul>
	Closure	<ul style="list-style-type: none"> <li>• Reviewing the target words.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewing the dialogue.</li> </ul>
		2 <sup>nd</sup> Teaching Session (TPR) (Sequences of the Lesson)	4 <sup>th</sup> Teaching Session (ALM) (Sequences of the Lesson)
SL	Warm-up	<ul style="list-style-type: none"> <li>• Getting to know the students, e.g., introducing herself to students and talking about students' and her hobbies.</li> <li>• Giving instructions of communication, e.g., 'please type 1 on the text chart, if you can hear me'</li> </ul>	<ul style="list-style-type: none"> <li>• Greeting students.</li> <li>• Pairing up students.</li> <li>• Giving instruction of communication, e.g., 'please, type 1 on the text chat, if you can hear me'.</li> </ul>
	Middle Stages	<ul style="list-style-type: none"> <li>• Introducing the lesson.</li> <li>• Explaining the functions of communication in SL, e.g., text and verbal chat.</li> <li>• Explaining classroom rules, e.g., 'without my (the teacher). permission, you cannot fly or go anywhere'.</li> <li>• Modelling and demonstrating the target words.</li> <li>• Students practised and performed role-plays.</li> </ul>	<ul style="list-style-type: none"> <li>• Introducing the lesson.</li> <li>• Teleporting students to the location (London Health Centre, LHC).</li> <li>• Performing and playing two roles of a doctor and a patient at the LHC.</li> <li>• Presenting the target words, e.g., 'cough' and 'flu'.</li> <li>• Pairing up students for role-plays.</li> </ul>
	Closure	<ul style="list-style-type: none"> <li>• Closing the lesson.</li> </ul>	<ul style="list-style-type: none"> <li>• Closing the lesson.</li> </ul>

#### 4.4 A summary of Teaching sessions of Joan

There were four sessions taught by Joan (Table 3), identical to those carried out by Jessica, apart from the teaching approaches. In the first two lessons (TBA), Joan was setting up a scene of a Chinese restaurant, such as wearing an apron and presenting the poster as a menu in CC. She was then pre-teaching food items shown on the poster by presenting and modelling the target words. Similar to CC, all tasks and pair work were conducted in 'a classroom' virtually. In the last two lessons (CL), she introduced different types of movies and feelings in Chinese, including horror and action, and interesting and boring. Unlike the TBA lesson in SL, the jigsaw activity was taking place in the sandbox, a wide open area in SL for building things, where the participating students were divided into small groups of 4 or 5 to perform the activity.

Table 3: Summary of Joan's Teaching Procedures in CC and SL

		5 <sup>th</sup> Teaching Session (TBA) (Sequences of the Lesson)	7 <sup>th</sup> Teaching Session (CL) (Sequences of the Lesson)
	Warm-up	<ul style="list-style-type: none"> <li>• Greeting students.</li> <li>• Asking lead-in questions, e.g., "Did you eat your lunch yet?" and "What kind of food do they eat for lunch or dinner?"</li> </ul>	<ul style="list-style-type: none"> <li>• Greeting students.</li> <li>• Asking lead-in questions, e.g., "What are you going to do during the winter vacation?"</li> </ul>
CC	Middle Stages	<ul style="list-style-type: none"> <li>• Introducing the topic.</li> <li>• Setting up the scene (at a Chinese restaurant), e.g., showing students a poster (a menu).</li> <li>• Modelling the target items on the poster, e.g., main dish and dessert</li> <li>• Students designed their own posters for meals and performed the role-play game (a customer and a waiter/waitress).</li> </ul>	<ul style="list-style-type: none"> <li>• Introducing the topic.</li> <li>• Setting up the scene (at a movie theatre), e.g., showing students a movie theatre on the PPT slide.</li> <li>• Eliciting answers from students about types of movies, such as comedy and horror movie.</li> <li>• Modelling the target vocabulary words (e.g., action movie and interesting).</li> </ul>
	Closure	<ul style="list-style-type: none"> <li>• Reviewing the target words.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviewing types of movies.</li> </ul>

		6 <sup>th</sup> Teaching Session (TBA) (Sequences of the Lesson)	8 <sup>th</sup> Teaching Session (CL) (Sequences of the Lesson)
SL	Warm-up	<ul style="list-style-type: none"> <li>• Setting induction by asking students questions about food.</li> </ul>	<ul style="list-style-type: none"> <li>• Setting induction by asking students questions relating to their winter vocation.</li> </ul>
	Middle Stages	<ul style="list-style-type: none"> <li>• Displaying food items of visuals on the PPT slides.</li> <li>• Eliciting answers from students regarding the food items.</li> <li>• Introducing and modelling the target words and sentences by using PPT slides and a YouTube video clip.</li> <li>• Students worked in pairs to design their own menus.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrating sentence patterns and vocabulary words on the PPT slides.</li> <li>• Teleporting students to the sandbox.</li> <li>• Grouping students by using different colour boards which showed students' names in different groups.</li> <li>• Using notecards to show a jigsaw reading activity.</li> </ul>
	Closure	<ul style="list-style-type: none"> <li>• Closing the lesson, e.g., reviewing words.</li> </ul>	<ul style="list-style-type: none"> <li>• Closing the lesson, e.g., reviewing words.</li> </ul>

#### 4.5 The Pedagogical Features of the Differences and Similarities in the Conventional and the Virtual Environments

As mentioned previously, the differences and similarities of the pedagogical features, e.g., tasks and skills, may provide us a better understanding of the student teachers' decision making, consciousness-raising and perception towards the face-to-face classroom and the virtual world. The identified features are listed in Table 4, the primary categories including 'tasks, skills and resources' (TSR), 'teaching methodology (TM) and 'classroom management' (CM). Each category subsumes a number of components, e.g., questioning and eliciting techniques under the 'tasks, skills and resources' (TSR).

Table 4: Summary of the Main Pedagogical Features in the Traditional and the Virtual Classroom

Pedagogical Features			
Primary Category	Sub-category	Similarities	Differences
Tasks, skills, and resources (TSR)	Questioning and eliciting techniques	<ul style="list-style-type: none"> <li>Increasing interaction between the teacher and the students by using questioning and eliciting techniques.</li> </ul>	<ul style="list-style-type: none"> <li>In CC, it allowed more than one student to answer the teacher's questions simultaneously, whereas in SL the teacher needed to control the number of students to answer or speak in order to avoid speech overlapping.</li> </ul>
	Presenting and explaining a topic/material	<ul style="list-style-type: none"> <li>Using PPT slides</li> </ul>	<ul style="list-style-type: none"> <li>In SL, using notecards allowed students to receive instant messages, whilst in CC hard-copy worksheets.</li> </ul>
	Grouping students (e.g., for language activities)	<ul style="list-style-type: none"> <li>Pair students verbally</li> </ul>	<ul style="list-style-type: none"> <li>In SL, grouping students might be subject to the students' avatars, such as animals in one group and humans in another, whereas using non-verbal cues was common in CC, e.g., hand gestures to indicate students in a group.</li> </ul>
	Teaching resources	<ul style="list-style-type: none"> <li>Use of a whiteboard, pictures, PPT slides, posters and worksheets to display target linguistic features</li> <li>Use a tape recorder (to play out a listening passage)</li> </ul>	<ul style="list-style-type: none"> <li>A wider range of teaching resources available in SL, e.g., using notecards or group conferencing call, and virtual hospitals.</li> </ul>

Teaching methodology (TM)	Teaching approaches (e.g., Total Physical Response)	<ul style="list-style-type: none"> <li>• Implementing the principles of a particular approach</li> <li>• Employing a specific teaching approach</li> </ul>	<ul style="list-style-type: none"> <li>• Aware of obstacles to implementing a particular approach</li> </ul>
Classroom Management (CM)	Managing students' conduct	<ul style="list-style-type: none"> <li>• Setting up classroom protocols</li> </ul>	<ul style="list-style-type: none"> <li>• Establishing classroom protocols in SL by means of voice or text chat, whereas in CC the protocols maybe established by using various forms, e.g., rules written in a poster</li> </ul>
	Giving instructions	<ul style="list-style-type: none"> <li>• Using verbal and written means to help students understand instructions</li> </ul>	<ul style="list-style-type: none"> <li>• Using 'speak', 'text' and whiteboard to instruct students participating in an activity in SL</li> </ul>

Tasks, skills and resources were possible to be implemented in both environments. For instance, using a PowerPoint (PPT) slide to present vocabulary words or structures in CC or SL was possible. However, in Session 5 (CC), Joan chose a poster to demonstrate the target words or phrases in relation to main dishes (e.g., beef noodle and spaghetti) and desserts (e.g., ice cream); whereas in Session 6 (SL) she used a PPT slide with the same teaching contents, see Figures 2.1 and 2.2. In her reflection report, she stated '*I prepared a poster to teach the food items in case the computer or the projector didn't work (in the traditional classroom)*'





Figure 2.1 Using a poster to present the vocabulary words in the traditional classroom



Figure 2.2 Using a PPT slide to present the vocabulary words in Second Life (by NCU Wonderland in Taiwan)

Figure 2: Teaching Sessions 'Ordering Food' Taught by Joan

Jessica elicited information or ideas from the participants in CC and SL by using the visuals shown on the PPT slides while teaching the lesson 'How are you feeling'. In her ALM lesson, she first played two roles, a doctor and a patient, to have a dialogue and had students drill the sentences in the dialogue, and then showed the target words and phrases like 'sore throat' and 'flu' accompanying the pictures on the slides. Apart from the *realia* or resources to be used differently, this part of her teaching was almost identical in the two environments. However, in SL, real-life like settings allowed her to provide students learning authentically as Jessica teleported her students to the London Health Centre to perform role plays, see Figures 3.1 and 3.2.



Figure 3.1 Jessica herself played two roles for a dialogue between a doctor and a patient at the London Health Centre. (Second Health by Imperial College London)



Figure 3.2 The participating students worked in pairs for the role play.

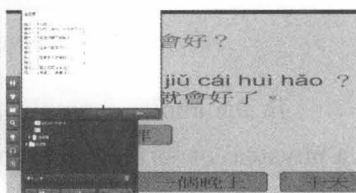


Figure 3.3 A note card showing the dialogue was given to individual participants.

Figure 3: Teaching Session in SL Taught by Jessica

Similarly, Joan used tools as teaching resources in SL to conduct a jigsaw activity. Although she could group students by calling out students' names as she did in CC, Joan built the boards in the sandbox as shown in Figure 4, to differentiate between groups during the Cooperative Learning lesson. All the participating students were divided into three groups; each group was assigned with one of the boards. The procedure of such activity in SL was similar to the one in CC, where the participating students pieced the story together by exchange of information. In her reflection report, she expressed that it was chaotic in her first lesson in SL when she grouped students for a classroom activity, because students could not understand her instructions. Hence, she used the boards with different colours to group students in the second time teaching in SL.



Figure 4: Teaching Session in SL Taught by Joan (Public Sandbox, Goguen)

In the above examples, when the prospective teachers perceived a situation, a physical or virtual environment, they had consciously made a decision based on their previous experience or current difficulties by means of adjusting their tasks or techniques suitable for a given teaching environment. In particular, the difference was mostly due to the constraints in one particular environment, such as a lack of facial expression in the virtual world.

Lastly, both student teachers reported that they were confident about their teaching in the conventional classroom in terms of a) tasks, skills and resources, including questioning and eliciting techniques, presenting and explaining a topic,

and etc.; b) adoption of teaching methodologies, e.g., TBA and TPR; and c) classroom management, such as giving instructions and managing students' conduct (see Table 5). In CC, both student teachers rated two features of (a) and (c) at nearly 4 on a 5-point rating scale, apart from (b), whereas they rated these features about 2 in SL.

Table 5: Self-rating of Pedagogical Skills

	Tasks, skills and re-sources (a)		Teaching methodologies (b)		Classroom management(c)	
	CC	SL	CC	SL	CC	SL
Jessica	4.2	2.2	3.7	2.3	3.8	2.4
Joan	3.5	1.8	3.0	2.0	4.1	1.5
Average score	3.9	2.0	3.3	2.2	4.0	2.0

Note: the numbers indicate a 5-point rating scale: 1-5, from extremely unconfident to extremely confident

With the above results, the assumptions are underlying the fact that the student teachers brought their learning experiences to the conventional classroom and then to the new virtual classroom. One of the assumptions is that they perceived the general aspects of pedagogy, such as students' behaviour and learning environment, quit traditional as influenced by their previous learning experiences. Because of this, they had sensed differently and made changes based on the suitability for the new environment once they taught in the new environment. Secondly, pertinent to the new skills needed in the two pedagogical environments, they might fall back on their previous knowledge or experience that helped them consciously develop strategies to tackle the constraints, such as lack of body language in SL and using a text chat when experiencing technical difficulties.

Noticeably, the student teachers might have been accustomed to a face-to-face context where a teacher was in control over the classroom according to their early school experiences, when they first came across teaching in SL feeling a loss of control. Such feeling was not unusual especially for those who were used to face-to-face classroom teaching or learning. However, community building and socialisation are needed whether in a face-to-face classroom or

online environment (Bennett & Marsh 2002; Hampel & Stickler 2005), whereby groups of members in the community share common beliefs and principles.

In this section, several issues have been addressed through discussing the findings in answer to the two research questions, that is, the instructional awareness of the student teachers that resulted in using various tools in Second Life to deliver teaching contents, for example. According to the student teachers' reflection reports, the pedagogical features of 'tasks, skills and resources' and 'classroom management' were mainly concerned by the student teachers, whilst 'teaching methodology' was the least concerned area. However, pertinent to the teaching approaches, Jessica had been aware of herself in terms of the role played when a particular teaching approach was adopted. For instance, she commented retrospectively that based on the principles of ALM, she should have led students to practising structural patterns in repetition but she explained the meaning of the structures instead. Unlike Jessica, Joan had never reported on how the teaching approaches had been employed in her teaching sessions. What can be explained is that though the student teachers were taught with the teaching methodologies in the 8-week workshop, such as audio-lingual method and task-based approach, knowledge about such theories of teaching may be limited. Such result is similar to the study by Nissen and Tea (2012) investigating L2 tutors who had difficulties to understand the theoretical underlying (task-based approach). Being highly concerned with the immediate contexts while teaching, such as 'themselves' and 'students', rather than the teaching approaches, seems to entail the teacher-concern stages (Fuller 1969; Kagan 1992; Bennett & Marsh 2002), the first concern being for 'self', followed by 'self' as a teacher and the last being for 'students'.

## 5. Conclusion

This pilot study aims at describing the experience of the prospective teachers teaching CSL in the real and virtual worlds, examining their awareness of their pedagogical knowledge and skills developed in the two environments. From the outset, we have introduced the background of online education as well as the pedagogical benefits of using such 3D virtual environment for language teaching

and learning. We have also discussed the theoretical bases that have placed an emphasis on reflection to help pre-service teachers develop professional knowledge and evaluated some existing models in both the face-to-face classroom and online context. Subsequently, the methodology of this study has been presented in terms of the research design, including the participants, data and procedures of data collection. Together with the data collected from the lesson plans, post-teaching interviews, and reflection reports, we developed a conceptual framework to find the main features of the knowledge and skills during the teacher training programme.

This study has some implications for the teacher training education. Although pre-service training programmes gain powerful insights into the integration of new teachers' knowledge and practicality, continuous professional development in relation to technical skills or professional knowledge is needed for developing competencies in the fast changes of online education. Given that profound opportunities are provided in the virtual environment like Second Life for L2 learners learning the target language without physical constraints, which means that students can have the access from all over the world, the need of learning in the virtual world places an emphasis on the teachers' knowledge and skills to be updated and sufficient to teach in SL. Moreover, the findings such as the main features discovered in this current research will help to provide future pre-service teacher training education in SL. To conclude, the scope of this study is confined to describing the experiences of the two participating student teachers teaching in the two different pedagogical contexts, the results of this study are not able to provide generalizability due to the inherent qualitative characteristics. Besides, the process of learning to teach gives rise to pedagogical awareness like this research intended to address in that helps prospective teachers move from the conventional to virtual classroom. This study has left many issues to be explored further, such as the relationship between the interactants' interaction (the teacher and students) and language activities based on the teaching approaches (e.g., Task-based approach) in the two different environments.

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# Appendix A: Lesson Plan

Method: \_\_\_\_\_

Name of Student Teacher: \_\_\_\_\_

教學主題		
課程目標		
上課日期		
環境	傳統教室	Second Life
場地、設備 需求		
教學步驟		
其他		

**Appendix B: Reflection Report**

教學法：\_\_\_\_\_

日期：\_\_\_\_\_

Implementation steps	教學活動 (時間)	傳統教室	教學活動 (時間)	Second Life	
Step 1					
	教學成效				
	兩種環境 的比較	相同點			
		不同點	調整原因：		
			反思 & comments：		
			教學建議：		
Step 2	教學活動 (時間)	傳統教室	教學活動 (時間)	Second Life	
	教學成效				
	兩種環境 的比較	相同點			
		不同點	調整原因：		
			反思 & comments：		
教學建議：					

# 探討華語實習教師之傳統教室與虛擬環境教學 歷程比較與分析

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## 摘要

本研究主要探討華語實習教師之職前培訓教學活動與教學反思，欲了解華語實習教師如何運用兩種不同環境作教學上的調整。簡言之，本研究主要比較華語實習教師課室與虛擬環境之教學歷程比較與分析。參與對象包括兩位臺灣籍華語實習教師（國立臺灣師範大學應用華語文學系的學生），與在臺灣學習華語的外籍學生，其母語包括印尼語、越語、英語等。本研究以質化為主，蒐集實習教師的反思報告與個別晤談資料其研究分析結果可歸納出以下幾個重點：語言學習任務設計、教學技巧與教學法、教學資源的運用、教室管理。另外，透過個別晤談研究結果顯示，這些教師的教學知能或教學技巧與個人過去的學習經驗有密切關係，例如這些實習教師依據自己過去外語學習的經驗，設計課室的學習任務，然後將這些課室的教學技巧作修正後，運用在線上虛擬的環境中。此研究結果有助於華語教師線上虛擬環境活動的設計，同時也提供華語實習教師及其它相關研究之參考。

**關鍵詞：**第二人生 中文作為第二語言 實習教師 反思實踐