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UNDERSTANDING HOW A BLEND OF SCAFFOLDING INSTRUCTIONS FACILITATE CHINESE LANGUAGE TEACHING

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Abstract

Much attention has focused on linguistic scaffolding in language learning, little is known how a blend of scaffolding instructions facilitate Chinese language teaching in Putonghua-Medium-of-instruction (PMI) classroom encompassing linguistic, cognitive, cultural, affective and social (LCCAS) aspects. Lessons of a secondary school teacher who attended a professional development workshop were observed. The findings indicate that the use of different scaffolding instructions tailored to the needs of students enable students to achieve Chinese Language and Putonghua learning through scaffolding in various aspects: (1) provision of linguistic scaffolding to students to adapt Putonghua instruction, (2) foster cognitive development by association of students' academic background knowledge with meaningful instruction, (3) connect the cultural and historical understandings of learners with the texts, (4) develop positive attitudes towards a switch of PMI from mother tongue to arouse the learning motivation of learners, and (5) stimulation of peer interaction and cooperation. Quantitative studies and cross-case qualitative studies examining this new conceptual framework on teachers' scaffolding are suggested for future studies.

Keywords

Scaffolding, Medium-of-instruction, Chinese Language, Putonghua

1. Introduction

The socio-cultural theory of Vygotsky (1978) suggests that human activities and mental functioning are mediated by language. Scaffolding is a metaphor or a structure that is put in place to help learners reach their goals and is removed bit by bit as it is no longer needed (Dennen, 2001). Scaffolding enables learners constructs the Zone of Proximal Development (ZPD) which is defined as: “the distance between the actual developmental level as determined by independent problem-solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotsky, 1978, p.86). Eman & Ghaleb (2012) suggest that the use of scaffolding instruction which matches with students’ ZPD significantly fosters students’ reading comprehension skills compared with the control group. As the theory provides a means of studying social processes in language learning and language use in classrooms, linguistic scaffolding, therefore has received much attention in studies of teacher-student interaction since the 1990s. For example, learning English as a second language (Cheng, 2008), using English to learn content knowledge (Pawan, 2008) and supporting the academic language development of bilingual students (Lucero, 2014). Nevertheless, using merely linguistic scaffolding is not sufficient to facilitate different developments of students simultaneously. Pawan (2008), based on the ‘Prism Model’ (L1+L2 academic, cognitive, social and cultural developments) developed by Virginia Collier (1995), argues that linguistic, conceptual, social and cultural aspects are personal practical knowledge of the content-area teachers. However, he neglects the importance of the interplay influence of cognitive and affective scaffolding that affect students’ motivation to learn and intellectual development (McQuiggan, Robinson & Lester, 2010; Porayska-Pomsta & Pain, 2004). The results of Hou (2010) suggest that scaffolding positively affect students’ reading attitudes and

styles, thus lead to different reading comprehension performance.

Since China resumed the sovereignty of Hong Kong in 1997, using Putonghua¹ (the national language of China and MOI in schools) to replace the mother tongue of students to teach Chinese Language has been promulgated as a long-term goal (Hong Kong Curriculum Development Council, 1999). Overwhelming studies have indicated that a switch of medium-of-instruction (MOI) not only creates various problems in the process of implementation (Alidou, 2004) but also exerts detrimental effects on general student learning, content knowledge understanding (Wannagat, 2007) and the learning motivation of students (Salili & Tsui, 2005). Nevertheless, there is a dearth of research examining how teachers' scaffolding can cope with the shortcomings arising from the change of MOI. This study aims to take account of the use of different scaffolding instructions in Putonghua-medium-of-instruction context. The contribution of this study is to provide a new theoretical lens in understanding the possible ways of scaffolding language and academic learning in Hong Kong and elsewhere. The research questions of the present study are: What are the scaffolding instructions identified in PMI classrooms? How does the teacher manifest the scaffolding?

2. Promulgation of Putonghua medium-of-instruction policy

Cantonese, the mother tongue of the Chinese students has long been used as the MOI in Hong Kong from Grade 1 to 12 to learn Chinese language while Putonghua is the MOI all over China. The importance of Putonghua has been increasing ever since Hong Kong reunion with Mainland China since 1997. The Standing Committee on Language Education and Research (2003) encourages schools to make a switch from Cantonese to Putonghua in a school-based approach provided that teachers have attained the Putonghua proficiency requirements. The rationale of the Committee can be seen in the following extract:

¹ Putonghua is also known as Mandarin. Putonghua means the 'common language' which is the spoken form of modern standard Chinese.

Those who made such suggestions argued that learning Chinese language in Putonghua would have the following benefits-- Students' general Chinese competence would be better; students' Chinese writing, in particular, would suffer from less interference from Cantonese; and students' Putonghua proficiency would improve (p. 35).

While studies have indicated that there is no conclusive evidence to support the argument that students' general Chinese competence and writing skills are improved after the implementation of PMI (see Ho, 2002; Standing Committee on Language Education and Research, 2003), attention has shifted to examine teaching and learning in PMI classrooms. The study of Ngan (2007) found that the learning of junior grade students of a secondary school has been adversely affected by PMI. The students remarked that the effectiveness of teachers' instruction and explanation was low since teachers had less interaction with their students. However, Sze (2010) has found that when teachers encouraged and rewarded the Grade 1 students speak Putonghua, there was a language shift towards Putonghua both at school and at home. The students also held a positive attitude towards Putonghua. Another study (Author, 2012) suggests that the conceptions of teachers govern their discretionary judgments of adopting pedagogy in classrooms. Transmission-oriented beliefs of teachers only reinforced the traditional classroom while the heuristic-centred beliefs of teachers were able to transform to constructivist classrooms where effective pedagogy was adopted in the interests of students to improve their learning. These studies shed important light into using Putonghua to teach Chinese language is not merely the switch of MOI, teachers' adjustment to instructional pedagogies and scaffold students' affective aspect are more likely to facilitate PMI learning. Further investigation in teachers' scaffolding is deemed necessary.

3. Theoretical Framework

Scaffolding is a supportive interaction through which novices (e.g. apprentice learners) are assisted by experts (e.g. teachers, parents, or other mentors) or other peers to develop new

skills, concepts, or higher levels of understanding (Maybin, Mercer, & Stierer, 1992). Li (2012) sums up the importance of the teacher's (expert scaffolding) and learners' (peer scaffolding) indispensable roles in leading students to language learning and encouraging independent learning.

Pol, Volman, & Beishuizen (2010) suggest that scaffolding has three characteristics during the instruction process: contingency (responsiveness, tailored, adjusted, differentiated, or calibrated support), fading (or the gradual withdrawal of the scaffolding) and transfer of responsibility. They are formed as a continuum. To provide contingent support, teachers must first determine the student's current level of competence and understanding so that each student's participation is a genuine contribution to the construction of a shared understanding. This support must be faded over time with, as a result, increased student responsibility for the task at hand. Eventually, students perform the task independently and put their understandings into practice (Lantolf & Aljaafreh, 1995).

Pawan (2008) argues that scaffolding is a pedagogical component of pedagogical content knowledge suggested by Shulman (1986). Pawan (2008) extended the 'Prism Model' developed by Virginia Collier, identified linguistic, conceptual, social and cultural as part of teachers' personal practical knowledge. Nevertheless, scholars suggest that cognitive and the affective scaffolding affects communicative strategies used in linguistic politeness (Porayska-Pomsta & Pain, 2004) and simulation-based learning environment such as intelligent tutoring systems (McQuiggan, Robison & Lester, 2010). Such scaffolding affects learners both cognitively and emotionally, impacting not just learner skill and knowledge, but also learner's motivation and confidence when approaching a task (Dennen, 2001). Based on literature review, this study proposes a theoretical framework encompassing linguistic, cognitive, cultural, affective, and social aspects to examine how teacher scaffold PMI learning. The characteristics of each aspect are described below:

Linguistic scaffolding refers to making the language accessible by situating it within a

personal realm (free journalling), in a process (prewriting) and expanding literacy as a multimodal practice (oral presentations of material, reading out loud, using a conversational delivery mode and writing down instructions) (Pawan, 2008). Moreover, the language being used is contextually bounded and it is subdivided into a field (topic or focus of the activity), tenor (the inter-relationship between the speaker and the listener or the writer and the reader) and mode (expectations for how specific text types should be organized) (Cheng, 2008). Linguistic factors cover all aspects of language development support including formal, informal aspects of the acquisition and learning of oral as well as written language skills in students' first and second languages (Cheng, 2008; Jadallah et al., 2011).

Cognitive scaffolding is the process bridging between the known and the new in communication. It covers sustaining conceptual and intellectual support in school work and through the use of students' 'first language at least through the elementary school years' (Thomas & Collier, 2002, p.43). Cognitive strategies such as hints, models, analogies and demonstrations, explanation, feedback (Dennen, 2001), probing for clarification, evidence and giving challenges (Jadallah, et al., 2011) are adopted while in reciprocal teaching (Brown & Palincsar, 1989), questioning, summarizing, clarifying, predicting, rephrasing or elaborating on statement and asking questions are the strategies employed in teaching a text.

Cultural scaffolding is the process of knowing and understanding which are connected to one's socio-historical experience; and knowledge is shaped by the individual's culture and background (Dennen, 2001). Teachers make use of the cultural differences of students such as knowledge, linguistic backgrounds and experiences at home/school/community referents to teach them effectively in language learning, with elements in their current classroom circumstances (Pawan, 2008).

Affective scaffolding is the process addressing students' motivation and supporting their emotional needs (Porayska-Pomsta & Pain, 2004) since teachers have motivational goals to challenge students to arouse their curiosity and to support their sense of self-control or

self-confidence. Affective scaffolding is a suitable level of challenge that allows students to solve the problem independently, resulting in the student's sense of accomplishment and a raised level of self-esteem (Porayska-Pomsta & Pain, 2004). Overt motivational feedback (praise and reassurance) contributes to motivation learning but only unmotivated students benefited from extra motivational scaffolding (Boyer et al., 2008).

Social scaffolding refers to teachers using flexible groups such as one-to-one, peer-to-peer dyads, small groups to facilitate teaching and learning (Pawan, 2008). The social scaffolding invites students to contribute cues, take part in activities, offering explanations, modeling good practice, demonstration. The postings coded under social scaffolding show that almost a quarter of the time teachers are also engaged in student-centred activities, mediated and unmediated by them (Pawan, 2008).

4. Methodology

Scaffolding can be in oral (Jadallah, et al., 2011) or written form (Cheng, 2008), occur at a macro- or micro-level. Micro scaffolding occurs within a single interaction or instructional episode (Nassaji & Swain, 2000) whereas macro discourses continue across lessons within a unit and knowledge is co-constructed by teacher-student interactions over time (Lucero, 2014). This study focuses on oral scaffolding at a macro level. A qualitative approach was used to conduct an in-depth investigation (Merriam, 1998) with the aim to get a deeper understanding of different scaffolding instructions employed in PMI context.

4.1 Participant

A secondary school teacher, Carol, who participated in this study, was a purposeful sample, follows the practice of overwhelming schools using Putonghua as the MOI at the junior secondary levels but switch to Cantonese in the senior years to prepare students for the public examinations (Davison & Au Yeung Lai, 2007). The school has implemented PMI for 12 years across classes from grade 7 to grade 11 since 2002. The school provides a consistent PMI

learning environment for all students.

The instruction of a teacher Carol (pseudonym) was examined. She got a Bachelor of Arts degree, majored in Chinese Language & Literature and obtained a teacher certificate. She joined the school in 2002 when she graduated and she had 11 years' teaching experiences. She is Cantonese and Putonghua bilingual and meets the language requirements to teach in Putonghua. To further enhance her professionalism, Carol attended a 1-year certificate course for Putonghua instruction.

The mother tongue of students is Cantonese. All students learn Putonghua as a subject in primary schools because Putonghua has been set as a core subject since 1998 (Education Commission, 1996). However, some of them received Putonghua instruction whereas the rest of them received Cantonese instruction at elementary schools.

4.2 Data Collection

The purpose of this study was to explore how teacher using different scaffolding instructions to facilitate student learning both within and across lessons. Entire units were observed rather than single lessons. The data focused on reading lessons covering different topics. An observation guide (see the appendix) was developed with respect to the framework developed in the literature review. A total of 20 classroom observations were conducted and videotaped² by the researcher from January to April, 2014. Each session lasted for 40 minutes and field notes were jotted down.

4.3 Data Analysis

Qualitative analysis was used to analyze the data. I engaged in ongoing analysis throughout the data collection period. The data of observation were examined.

All recorded lessons were transcribed and coded with the help of NVivo qualitative data analysis software. The first round of data analysis examined the observation data of Carol. Coding and sorting of the data were undertaken (Strauss & Corbin, 1990). Consistent and

² Carol agreed to be video recorded during their classroom instruction. In order to alleviate her anxieties, the researcher explained the purpose of adopting this device before the classroom observations were scheduled.

inconsistent data were examined, compared and analyzed carefully. The second round of analysis was to compare and contrast the categories and patterns. The different patterns were allocated into categories such as: (i) linguistic support, (ii) challenging strategies to facilitate content knowledge learning, (iii) cultural scaffolding, (iv) motivational strategies, (v) frequent peer interaction. The coding process is shown in Table 1.

Table 1: Coding process

Coding	Categories	Themes of scaffolding
correct articulations	pronunciation	linguistic
correct use of terms	vocabulary	
correct and feedback on the use of lexicon	grammar	
title/ keywords/ topic sentences	textual cues	
argumentative essay, narration, novels	genres	
code switching, mixed-code	mode of code	
modeling	demonstration	cognitive
offering hints, give examples,	directing	
rephrasing, recasting	check for understanding	
ask questions	questioning	
probing for explanation, justification	reasoning	
challenge and defense	critical thinking	cultural
loyalty, integrity	Chinese culture and	
three counties period	history	
fashion styles in different periods	social norms and practices	affective
good attempt, try again	stimulation	
excellent, well done, innovative, smart,	encouraging, appreciation	
yes, exactly, ok	neutral remarks	
no, incorrect	negative remarks	

teachers pose questions and Students respond	teacher-student	social
brainstorming, pairs work, group discussion, engaged in drama	student-student	

5. Findings

The findings show that Carol used different scaffolding instruction covering linguistic, cognitive, cultural, affective, and social aspects to tailor the needs of students in learning as we can see from the following excerpts.

In an observed lesson, Carol taught students an article *Trendy fashions in the past*.

T: Last Friday, I've told you to bring some old pictures of your grandpa, grandma, and parents. Have you brought them?

Ss: Yes! (They exclaimed with joy)

T: Now, form a group of four and share with your classmates the photos. Identify different make-up, hairstyle, footwear, dressing and headgear of men and women. Ten minutes later, each group will present your findings. (The teacher walked around listening to the small-group discussions)

S1: How to pronounce a 'head hoop', 'hair pin' and 'rubber bands' for girls in Putonghua. (The student speak in Cantonese)

T: (The teacher wrote the phonetic transcription on the blackboard and pronounce the words in Putonghua accordingly)

S2: How to read this vocabulary in Putonghua? (The student pointed to the words written on a paper)

T: The pronunciation of Chinese dress is qí páo while jackets for men is pronounced as mǎguà. (The timer rang)

T: Let's hear the report of each group.

S3: This photo shows my family members. The man and woman sitting in the middle is my grandpa and grandma. My grandpa wears a grey mǎguà. My grandma wears a Chinese dress with a pearl necklace. She keeps her hair in a bun. My dad and mom are standing behind them. My dad wears a long shirt with a tie and black trousers. He keeps short hair and he uses hair cream. My mom wears a pink dress with red roses. She keeps curly hair. The baby in mom's arms is me. Am I very cute?

T: Very good! You've done a great job.

Carol gave students a clear objective of learning the article and the goal of the lesson. Instead of giving a direct explanation on the text, she arranged group work for students to accomplish a simplified task in collaboration. This task was crucial because Carol had diagnosed the Putonghua competence of students. She was well aware that individual student might not have adequate Putonghua proficiency to express their ideas, therefore teacher scaffolding and peer interaction might help. She offered linguistic scaffolding (word level) to students once they needed her assistance. She motivated students to engage in a task while Cantonese was allowed when students raised questions. In this way, students could learn Chinese language in Putonghua instruction with ease. The flexible code choice enables students to receive adequate linguistic scaffolding. Putonghua learning had been achieved with the complement of the mother tongue.

Carol further associated students' prior cultural knowledge and experiences with the text and enhanced their understanding. She guided students to discover the topic they learnt is part of their life. The students were interested in sharing their old photos with classmates to identify the old fashions that their family members wore. The text was used as a springboard to cultivate students' learning interest and develop their language proficiency. Moreover, social scaffolding among students had also been observed. She helped less able students to construct the ZPD in collaboration with more capable peers. The group discussion not only increased students' engagement, but also developed their oral and analytical skills. Via contingency fading, Carol gradually transferred her responsibility to the students to perform a group presentation. When the

students accomplished the task in collaboration, she gave appreciation to them. Interdependent learning was cultivated.

Carol was able to associate students' academic background knowledge with the texts and the students could overcome difficulties when they learnt articles which are both alien to their life and were written in classical Chinese. An observed excerpt is illustrative.

T: Do you know the flower which is representative of Hong Kong?

Ss: Bauhinia! (All the students exclaimed in Putonghua)

T: Good! Which flower is representative of Macau?

Ss: Lotus! (Some of them shouted)

T: The Chinese authors favoured using flowers, birds or animals as metaphors to reflect the personalities of mankind (She shows students some pictures). For example, in the text, 'the hope of water' you learnt in Grade 7, the water escaped from a vase represented the determination of men. Could you recall some examples?

S1: The 'swallow poem' is to satire the grown-up children who abandon their aged parents.

S2: Bamboo is used to symbolize those gentlemen who live in seclusion.

T: Well done! The essay we study today is 'Lotus Reminiscence'.

The author praised the lotus which can filter the dirt and remains its purity. Now, I'd like you to guess what are the implicit meanings of 'dirt' and 'purity' respectively? Think about the workplace of the author and the officials. You may work it out in pairs. (Students chatted proactively)

S4: The dirt means the corrupted officials.

S5: Purity signifies the noble character of the author.

T: Great, exactly! But, could you elaborate it in more details?

S4: The mud in the pond signifies the bad practice of officials in the ancient government context.

Most of the officials pursue wealth, fame, and power at the expense of the people.

S5: Some of the minority upheld the righteousness and followed the virtue of the

Confucius and they serve the people wholeheartedly.

T: That is the theme that the author aimed to deliver to the readers. Well done!

Since the academic language is de-contextualized and situation-independent (Lucero, 2014), Carol provided verbal and visual contextualization by giving similar examples and analogies which are closer to the students' experience at the beginning of the lesson. She then raised students' interest by giving hints to them about the flowers students were familiar with so as to draw their attention to the topic. Carol further used guiding questions to engage students' mind and gave cognitive scaffolding to students.

Carol then deepened students' interpretations through posing different questions to stimulate students' cognitive development and encouraged students to refine their understanding by focusing on similar texts. She also used open-ended questions to encourage students to provide detailed and complex responses. She demonstrated an example to students and let them think of their own examples. She withdrew at the right time and gradually transferred the learning responsibility to students.

Carol permitted a wider range of inquiry into the topic for students. This is likely to foster critical thinking and reflection among students. She enabled students to learn new concepts by bridging their prior knowledge with the texts. The weaving of new knowledge into existing cognition facilitates students' understandings. By giving contingency scaffolding, she guided her students to analyze its implications by associating their background knowledge and daily life together so as to enable them to practice higher-order thinking. The ZPC was maximized in this practice.

Carol always used interactive discourses to arouse students' learning motivation, such as peer interaction and scaffolding. In an observed lesson, a role play performed by students was illustrative.

T: Today we have a play performed by all of you. Are you ready?

Ss: Yes! (The students were very excited)

T: O.K. Group one, please.

S1: (This student is the narrator) Zhōu Yú is the general of Wu County. He is always jealous to Kǒng Míng, a well-known wise man in politics and military. One day, he gave a problem for Kǒng Míng to solve.

Scene 1

Zhōu Yú: Kǒng Míng, I need one hundred thousand arrows. Could you make them in a week?

(The student dressed up in a figure of a general arming with a long sword.)

Kǒng Míng: It's easy, I can make them in three days only! (He replied with a smile, full of confidence.)

Zhōu Yú: If you fail, what's the term of compensation?

Kǒng Míng: If I fail to accomplish the task, you can punish me.

Zhōu Yú: Alright.

(Two days had passed.)

S1: Zhōu Yú was bewildered because Kǒng Míng did nothing. He thought Kǒng Míng would not be able to make one hundred thousand arrows within a day.

Scene 2

Kǒng Míng: Prepare a ship and put scarecrows on the ship. The weather will become foggy and windy tonight. Row the ship near the campsite of Cáo cāo (their enemy).

Soldier: Yes, sir.

(Scene 3 & 4 do not display here)

T: Your performances are spectacular! Now, form a group of four to five to discuss the personalities of the three characters namely: Zhōu Yú, Cáo cāo and Kǒng Míng in fifteen minutes.

T: Have you finished? (She quickly glanced around the classroom) O. K. Let's hear your report.

Each group gives one of your viewpoints.

Ss: (Some students put up their hands)

T: Nancy's group, please.

S5: Kǒng Míng is knowledgeable.

T: Yes! But we all know that Kǒng Míng was full of wisdom in the aspects of military and politics. Can you give us specific example? (The group of students quickly addressed and discussed this matter. They then came up with their mutual agreement)

S5: He learnt that Zhōu Yú gave an unachievable task to him, (em..) to produce one hundred thousand arrows in three days. The only way to accomplish this task was to get arrows from his enemy Cáo cāo. He tricked Cáo cāo by approaching his barrack before dawn. Cáo cāo thought that it was an assault and ordered his soldiers to shoot arrows at Kǒng Míng's fleet of ships. All the arrows consequently were trapped by the scarecrows on the ships.

T: Well done! Your explanation is concise.

In this lesson, Carol passed task responsibility to students. She motivated students to learn and let students engaged in a performance and helped them adhere to a discussion afterward. The affective scaffolding kept students in high motivation and increased their self-esteem and self-efficacy. The peer scaffolding was achieved through collaboratively assisting each other in the performance. Finally, self-regulation in a community level was accomplished.

Moreover, the students internalized the peer scaffolding in the discussion. When Carol realized that a student was not giving comprehensive analysis about a character, she probed for an elaboration and fostered student's critical thinking. The student then fine-tuned her answer with the assistance of her group members. Teacher scaffolding was withdrawn as students could provide their mutual support.

An important criterion for student satisfaction appears to be related to the degree of interactivity between teachers and students and the instruction's philosophy of social scaffolding. This technique allows everyone to participate without singling out any one individual. Such grouping is beneficial for acquiring content knowledge and brainstorming. The interaction of

students increased their cooperation and extended their talents and potentials. This can be considered a great leap forward for their personal growth and self-efficacy development.

Moreover, the students enjoyed the lesson because they were encouraged to speak Putonghua in front of their classmates. Some of them showed their creativity by preparing relevant costumes, re-phrasing some wordings so that learning became more interesting.

Summary Carol scaffolds student learning in several ways. Firstly, she is skillful to offer linguistic assistance to students in authentic contexts. Secondly, students' talents in learning Chinese language are maximized since the teacher associated their academic and cultural background knowledge with the texts. Thirdly, the group activities and peer scaffolding increase the interaction among students. Engaging in activities also further boost their confidence and motivation to co-construct knowledge together. The students can generate their own ideas and deepen their understanding of texts through discussion. The interplay between the five dimensions is illustrated in Figure 1.

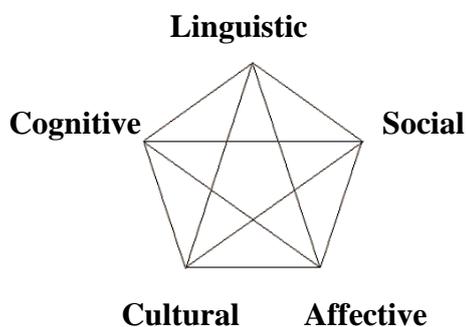


Figure 1: *LCCAS scaffolding*

6. Discussion

This study has revealed that the interplay of different scaffolding instructions facilitates student learning. Carol's scaffolding was conducive to learning because they were tailored and then withdrew in response to students' development and eventually moved toward self-regulation (Lantolf & Aljaafreh, 1995). The findings of this study provide a new conceptual framework to examine teacher's scaffolding in PMI learning context.

Carol deliberately created an interactive learning environment for students to explore a new spoken language. She lowered the language barriers of students in the classroom by permitting them to complement Putonghua learning with the use of mother tongue. Although Putonghua proficiency of students is one of the difficulties happened in PMI classes, Carol can guide students properly to increase their confidence in listening and speaking in Putonghua. Carol's assistance also helps students to diminish their embarrassment in speaking Putonghua by engaging them in meaningful tasks and improve their Chinese proficiency simultaneously. Thus the linguistic scaffolding plays a critical role to maximize the interactions between teacher and students; and foster students' interest in learning. The findings of this study reveal that teacher's scaffolding instructions integrated with target language facilitates students' academic language development and enables them to learn content subjects (Lucero, 2014; Pawan, 2008).

Students are also provided with cognitive scaffolding so that they can make progress within the ZPD. Carol associated students' academic background and daily life with the texts to facilitate cognitive development in meaningful contexts. The scaffolding allows students to internalize Chinese content knowledge and Putonghua, and put them to use productively. Carol is also aware of making use of the text as a springboard to promote their cognitive growth and develop their language proficiency. By adopting the reader-oriented approach of teaching in Putonghua and increasing students' involvement are more likely to make teaching and learning dynamic. The results of this study concur with previous studies that learning through guided experience on cognitive scaffolding facilitate intellectual development (Dennen, 2001; Boyer, et al., 2008).

Although the findings of Pawan (2008) suggest that cultural scaffolding is less frequent compared with other scaffolding, this study indicates that cultural scaffolding associated with cognitive support increase students' understanding of content knowledge. The cultural, social and historic knowledge of students enables them to draw closer attention to the texts. It is conducive to enhance student's Putonghua and facilitate Chinese learning simultaneously. It is suggested

that cultural scaffolding intertwined with cognitive teaching which takes into account of the content knowledge being taught.

With the appreciation from Carol, students are more likely to develop a positive attitude and motivation towards Putonghua instruction which concurs with the findings of Sze (2010). The results of this study show that language learning tied to teacher's motivation, which enables students to build on their knowledge and skills. This supports can compensate for one's limited language proficiency or aptitude and reinforce their confidence to achieve language improvement. Although Boyer et al. (2008) suggest that only low self-efficiency students get benefits from teachers' encouragement, the present study observed that all students were motivated and engaged in group activities.

The findings of this study support the view of Li (2010) who argues that the combination of appropriate expert and peer involvement in the discourse provide the optimum form of interaction and ensure the high quality of mediation. This study illustrates that the collaborative interactional process between teachers and students and among students fosters social developments of students (Jadallah, et al., 2011; Pawan, 2008). Since individual students might not be able to accomplish a task independently (Pol, et al., 2010), social activities such as interacting and collaborating with others serve as a mediating tool in new skills and concepts developing, high-order mental processing and problem-solving (Maybin, Mercer, & Stierer, 1992). Using collaborative dialogues in the classroom among students also help to build knowledge and construct linguistic knowledge that may not have been accessible to the students on their own (Wannagat, 2007).

The five dimensions of scaffolding are interdependent to each other and they form a reciprocal relationship. The cyclical process and the interplay influence of the five dimensions facilitate students' language development and content knowledge acquisition. The findings of this study suggest that scaffolding not merely include pedagogical content knowledge of teachers (Pawan, 2008), but also subject matter knowledge, general pedagogical knowledge, and

knowledge of learners (Shulman, 1986). Subject matter knowledge refers to the specific content knowledge that teachers are specialized in his/her field of teaching. General pedagogical knowledge is related to the general instructional strategies used across subjects, such as thinking aloud, demonstration, questioning. Carol has good knowledge of students' language proficiency, their knowledge background and learning motivation, the difficulty of the learning materials, and a variety of teaching strategies. Her scaffolding can successfully transfer the responsibility to students.

7. Conclusion

To conclude, the findings of this study provide a new theoretical lens to examine classroom scaffolding. The five components namely: linguistic, cognitive, cultural, affective and social influencing each other reciprocally through a cyclical process. The new framework for pedagogical scaffolding facilitate teaching by (1) offering sufficient linguistic scaffolding to learners; (2) making greater use of texts to foster cognitive development and encourage free expression and creativity; (2) making use of learner-centred instruction to associate cultural background of students with the texts and encourage learner independence; (4) developing positive attitude of students to learn Chinese in Putonghua; (5) providing ample opportunities for expert and peer interactions to bridge the gap between subject and MOI teaching methods. It also sheds light on the ways of scaffolding to develop bilingual skills, academic language and content understanding of students. It is also suggested that scaffolding is conducive to student learning even though there is a change of MOI in classrooms. To provide concrete scaffolding to facilitate PMI learning, the teacher offered linguistic support to students, addressed their language and background knowledge, adopted constructivist instruction, and provided student interactions for them to learn Chinese language and Putonghua.

There are limitations in this study. The findings of a single case are not intended for generalization. As classroom instruction can vary substantially, more school contexts are useful

to compare the learning differences between students. Quantitative studies and longitudinal qualitative studies are suggested to examine this new conceptual framework on teachers' scaffolding with respect to teaching effectiveness and impacts on student learning. Further research is also needed before it can be concluded that total avoidance of the mother tongue or permission of code switching whenever necessary is the optimal approach in MOI programmes.

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Appendix: Observation Guide

1. What kinds of scaffolding instruction does the teacher adopt in terms of linguistic, cognitive, cultural, affective and social aspects?
2. Does the teacher provide scaffolding to students with respect to contingency, fading and transfer of responsibility in PMI classrooms?
3. What are the instructional pedagogies (in terms of feedback, hint, instructing, modeling, questioning) employed by teachers? Does scaffolding present in his / her instruction?
4. What are the classroom activities being arranged? Are students being motivated and engaged

in these activities?

5. Are the teaching strategies effective to facilitate student learning with respect to learning Chinese language through Putonghua, arrive at a deeper understanding of concepts, enhance Putonghua competence and foster teacher-student interaction?