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Developing Critical Thinking in EFL through Visible Thinking Routines: Experiences of Teachers in a Chinese International School

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Abstract

In recent years, critical thinking (CT) has become a key factor in promoting language learning, especially in Chinese international schools. However, there is limited research about the approaches to develop CT within this context. Therefore, this paper focuses on the ways in which English language teachers engage with Visible Thinking (VT) routines to develop students' CT ability among students in an international school in Fujian, China. Also covered in this paper are suggestions on how to overcome certain challenges that result from the use of these routines. In this qualitative study, data were obtained through semi-structured interviews with four EFL teachers and data were analysed thematically. The results show that English teachers utilized VT routines as a lead-in and a text-based discuss tool to improve students' CT skills. Additionally, six challenges were identified and these related to the complexity level of VT routines and teachers' understanding of the these routines, students' difficulty in providing critical answers, lack of motivation, internet dependence issues and students' language proficiency level. To overcome these difficulties, teachers should devote more time to lesson-planning and problem-prediction, recognize the value of content knowledge, encourage motivation through peer-support and reward-systems, encourage discussion. Implications for teaching include gaining familiarity with VT routines which can be done through informal conversations with colleagues and also through professional development activities.

Keywords: critical thinking, visible thinking routines, Chinese international schools, EFL, English language teaching

1. Introduction

Critical thinking (CT) has been identified as one of the constructs which have proven to be a good predictor of academic performance (Tsui, 1998; Giancarlo & Facione, 2001; Moore, 1995; Rashid & Hashim, 2008; Aldaihani, 2021). Moreover, researchers claim that CT plays an important role in the acquisition of language skills. (Elder & Paul, 2006; Shaharom Abdullah, 2004; Seung-Ryul Shin, 2002; Stapleton, 2001; Moore, 1995; Rashid & Hashim, 2008).

In China, which is the context of this study, international schools are a popular choice for students who want to study abroad. Unlike public schools in China, international schools offer a considerably different curriculum which is internationally recognized, such as International Baccalaureate (IB) curriculum, A-level curriculum and Advanced Placement (AP) syllabus. These curriculums have a focus on CT development and in English language classes, students are assessed not just on language proficiency, but on their CT skills as well.

However, there is a widespread concern among western academics that Chinese students are not trained to think critically (Fan & See, 2022). Lucas (2019) claimed that Chinese learners lack CT skills training such as analyzing and evaluating information. Wu (2020) also indicated that after arriving in new learning environments, the cultivation of creative, intellectual, disciplined, and competitive talents, tightly govern Chinese students' learning processes. This phenomenon shows that teachers still need to take steps to cultivate Chinese students' critical thinking. However, Zhang, Yuan, and He (2020) argue that teachers lack the related knowledge and concrete pedagogy for teaching CT, and need more learning opportunities, resources, and contextual support in this regard. In addition, within an EFL context like China, teachers do not only need to develop critical thinking abilities, but also need to focus on language development. This is apparent in English language classrooms in Chinese international schools, where the English language is dominant. As a result, students are expected to achieve high levels of performance.

In light of this situation, this paper sought to uncover the experiences of EFL teachers in a Chinese international school, as they engaged with a pedagogical tool that is recognized to be able to develop thinking skills among students. In this study, we focus on a set of thinking routines called Visible Thinking (VT) routines, which is one way in which thinking can brought to the forefront of English language teaching and learning. These thinking routines can be incorporated into the teaching of any subject or language skill as it encourages students to think critically and to connect ideas to their immediate realities. Through VT routines, students are expected to externalize their thoughts, ideas, beliefs, thinking processes, and display deep understanding of subject matter (Dajani, 2016). During this process, students are offered the opportunity to share ideas, form opinions, develop thinking habits and enhance their CT skills and dispositions.

Thus, the research questions that guided this study were:

- How do English teachers in Chinese international schools use VT routines to develop CT in their classrooms?
- What challenges do Chinese international school teachers have when they use VT routines to develop CT in their classrooms?
- How do Chinese international school teachers mitigate the challenges when they use VT routines to develop CT in their classrooms?

1.1 Critical Thinking (CT) and English Language Teaching (ELT)

Many studies have examined the relationship between CT and ELT. Shirkhani and Fahim (2011) point out that language development is closely related to thinking and that higher order thinking skills should be an integral part of the second language curriculum. Rafi (2009) goes on to explain that one of the reasons why the promotion of CT is important in ELT is because critical thinking is highly correlated with learners' achievements. As Taghva et al., (2014) discovered, students with higher levels of critical thinking skills have better abilities of information processing, organizing, deduction, inference, exploring, and openness to experience. What's more, Ulubey & Alpaslan (2022) reviewed a lot of researches and concluded that students with high critical thinking dispositions or skills are expected to have high academic achievement.

Past research has also shed light on the perceptions of teachers towards the integration of CT in language learning. Within the higher education context, Zhang, Yuan and He (2020) found that EFL teachers in China strongly agreed that CT should be an integral part of EFL curriculum and classroom instruction. However, these teachers reported that they seemed to lack expertise in CT and how to implement it in the classroom. In addition, they faced various challenges and claimed that they needed further support. This is not just a challenge that Chinese teachers face. In other contexts, such as Malaysia, higher education English for Specific Purposes (ESP) teachers highlighted that they do not have adequate knowledge on specific methods and techniques to promote critical thinking skills because they did not have sufficient exposure to it (Dwee et al., 2016). Similarly, within the Malaysian secondary school context, Aziz et al., (2017) revealed that the teaching of higher order thinking skills were often neglected because teachers were unsure of how to plan, implement and assess these skills.

In China, the Ministry of Education of the People's Republic of China has put the goal of developing critical thinking skills into *The College English Curriculum Requirements* (The Requirements hereafter, 2007). With this reform, the cultivation of learners' critical thinking has become an increasingly indispensable element in the college English teaching process. Pei et al., (2017) point out that nurturing CT has been acknowledged as a core objective of tertiary education, specifically within the teaching of EFL in China. Therefore, it is important for teachers to integrate the cultivation of critical thinking at the secondary school level itself, in order to prepare students for what is expected when they move on to tertiary education. This is because dispositions towards critical thinking and thinking habits cannot be formed in a short time, and need to be developed at an earlier stage in a student's life.

1.2 The Relationship between VT Routines and CT

VT routines are referred to as routines because they represent a sequence of actions designed to achieve a specific outcome in an efficient manner (Dole, 2017). There are many VT routines that can improve students' critical thinking ability and they have been used by teachers from different parts of the world, from primary, right up to the tertiary level. For example, Gholam (2019) suggested that the 4C's routine reinforces and strengthens text-based discussions by asking the students to make connections, challenge ideas or assumptions, ask questions, identify important relevant concepts, and consider changes. This is a meaningful and effective routine that could engage students and promote text-to-self connections, critical and analytical thinking, concept or theme identification, and synthesis. Kaddoura (2013) provided empirical evidence to prove that another routine, Think/Pair/Share increases students' CT ability and facilitates cooperative learning as well. Pinedo, García and Cañas (2018) found out that thinking routines like See/Think/Wonder is a very simple and useful exercise to promote deep thinking and understanding in students.

As a whole, there has been considerable research to show that VT routines help learners connect with familiar and relevant events in their lives, expands their repertoire of thinking, engages them in the learning process, and motivates them to learn (Salmon, 2010; Ritchhart, Church & Morrison, 2011). However, there is insufficient research in how VT routines can be used to promote and develop CT skills within the Chinese contexts, and specifically within international schools.

1.3 The Use of VT Routines in English Language Classrooms

One of the strengths of VT routines are its flexibility, that can be used to teach different subject matter. In the English language classroom, VT routines have been used in different ways. For instance, Dajani (2016) conducted a study within the ESL Palestinian context and found that VT routines can enhance students' engagement in English language classrooms and cultivate a culture of critical and creative thinking. In Indonesia, Manurung, Masitoh and Arianto (2022) found that VT routines improved critical thinking significantly. They also point out that thinking routines develop a thinking culture that provides space for students to think and question their understanding. The student's critical thinking tends to develop more in a learning environment that provides discussion and learning experiences using argumentation.

Another related study was conducted by Papalazarou (2015) in Greece, which experimented with how teachers can encourage creative thinking in the English classroom by using artful/visual stimuli and the VT approach. Findings revealed that VT routines can have rewarding effects, provided that they are not used just once or occasionally and that these routines are attached to meaningful content. VT routine engagement is a long-term project, which requires time, careful choice, and systematic use to bear fruit.

2. Methodology

This study was conducted in an international school which was located in Fuzhou city, Fujian province, China. The curriculum that is used in this school is the International Baccalaureate Middle Year Program (MYP) curriculum which includes the teaching of English language

acquisition (ELA), and the teaching of English language and literature (ELL). Table 1 contains more details of participants who volunteered to take part in this study and who were willing to engage with and utilize five different VT Routines in classroom teaching.

Table 1: Participants' Details

Pseudonym	Nationality	Gender	Age	Teaching Experience	Course
Teacher 1	Chinese	Female	30	6 years	ELA
Teacher 2	British	Male	28	3 years	ELA
Teacher 3	British	Male	30	7 years	ELL
Teacher 4	British	Male	32	7 years	ELL

The five VT routines that were chosen for this study were: "See, Think, Wonder", "Think, Pair, Share", "4 C's", "3 2 1 Bridge" and "What Makes You Say That". These routines were chosen because they were thought to be easily adapted to teach different course content and learners from different proficiency levels. Participants were first given a briefing on how to use these routines, and were then provided with clear steps on how to implement them based on the thinking moves proposed in Project Zero's Thinking Routine Toolbox which can be found here: http://www.pz.harvard.edu/thinking-routines

Data were then collected through recorded semi-structured interviews in order to gain in-depth knowledge from participants about their experiences. Field notes were also kept by the researcher for further reference. The interviews were recorded and were conducted face-to-face, with each interview being at least half an hour long. The interview questions were mainly to understand the teacher's teaching experience and views on the use of VT routines, and to further address the research questions of our study. For the purpose of letting participants express themselves freely and accurately, they were allowed to use their mother tongue to answer the questions.

Once the interviews were completed, audio recordings were transcribed. A thematic approach was then adopted to analyse the data (Braun & Hayfield, 2015). This involved the creation of themes based on dominant ideas which emerged from the data and which were guided by the research questions.

3. Results and Discussion

This section report on two main ways VT routines were used by teachers. This is followed by the six challenges that teachers faced when engaging with these routines. Finally, some suggestions that participants put forward are taken for future consideration.

3.1 Uses of VT in Developing CT

Based on the interviews with the participants, it was observed that VT routines were used to develop critical thinking in two ways. First, they were used as a lead-in activity to lessons. Second, they were used as to assist in critical text-based discussion.

Some teachers shared how they used See/Think/Wonder as a lead-in. Two teachers shared how visuals and pictures were used to stimulate students' thinking on a particular topic and incorporated the use of See/Think/Wonder to get students to think more deeply about the visuals used. Teacher 3 illustrated how this routine was used by showing students visual designs of advertisements when teaching a topic on advertising. Teacher 1 did something similar and showed students pictures of different clothes when teaching a topic on clothes and fashion. In both instances, visuals were used as a lead-in to later probe into students' thinking on what messages were contained in these visuals. It also helped to prime students' thinking on the given learning content. These visuals were not just used at the start of the lesson to stimulate interest by being a "fun" or "enjoyable" activity, instead there was an emphasis on thinking, even at this initial stage of the lesson. Through the "See, Think, Wonder" routine, students were also provided with the opportunity to express their observations and thoughts in the English language.

Teacher 3 went on to highlight how the "See, Think, Wonder" routine was later linked to what students encountered outside of school:

> We introduced the idea with me leading the activity, and adverts that I had chosen. And then I encouraged the students to use this process on their own (See, Think, Wonder) with any other adverts that they saw in their daily life, or adverts that showed up on their devices on their computers. Then in the following sessions, they shared their findings at the beginning of the class. (Teacher 3)

Here, Teacher 3 was guiding students' critical thinking development by providing opportunities for them to draw inferences between what was learnt in class with other relevant material they encountered in their daily life. In the subsequent class, students' observations took centre-stage in the lead-in activity that was planned, and they were given the opportunity to share their findings with the rest of the class. These findings also exemplify Vygosky's Zone of Proximal Development (1978) which refers to what students can do with guidance or in collaboration with more capable peers or the teacher. In this instance, teachers utilized VT routines as a scaffold to help students develop critical thinking when discussing a topic on advertisements.

Second, VT routines were also seen to be used to assist in text-based discussion. In both English language acquisition (ELA) and English language literature (ELL) classes students were expected to be able to engage in textual analysis. The types of texts used in these classes were from different genres such as poetry, plays, movie scenes, all depending on the teaching content that was to be covered in the lesson.

It was found that teachers adapted these routines in different ways, sometimes even combining two routines to suit the broader aims of their lessons.

> With the See Think, Wonder … I kind of adapted this routine with my teaching objective which is to identify camera-angle techniques and explain the effect of them on the audience. So after viewing the scene, students have answered "What they have seen", and "What do they think the camera-angle is", and "What do they wonder about the camera-angles", for example "Why did the director choose this filming angle" and "What the effect of using this angle to the audience". We analyzed it scene by scene, so that students can notice the changes of the angles clearly. (Teacher 4)

Teacher 3 went on to explain how they combined two VT routines:

> First, they work on their own to kind of answer the questions (in See, Think, Wonder) or have some time to think about the questions on their own, and then they would share in pairs or in a small group (Think, Pair, Share). (Teacher 3)

The accounts from Teacher 4 and Teacher 3 reinforce Mertens's (2018) claim on the flexibility of VT routines because they can be used by students individually or in groups, and they can be adapted by teachers and be used in a variety of contexts. Furthermore, these participants' experiences also highlight the flexibility and the creativity on the part of the teacher in adapting the routines to suit their lesson aims. This is aligned with Cappello and Walker (2016)' s finding where teachers sometimes felt the need to modify VT routines to fit objectives within the academic discipline. Because each routine requires students to think in different ways, it is important for teachers to select appropriate routines to suit the topic being taught and to suit the type of thinking that is desired (Phonekeo & Macalister, 2021).

Before using VT routines to facilitate critical text-based discussions, there were a few teachers who felt that students needed to have clear understanding and comprehension of the text that was being used in class. They shared their experience of using "4Cs", which is a routine that can be used to synthesize and organize ideas, and also to seek out and explore differences and tensions among multiple facets of complex issues.

> Before using 4Cs, we firstly go through all the new vocabulary and the meaning of each paragraph, so that students can have an elementary understand of the reading text. (Teacher 1)

Additionally, Teacher 2 believed that when students had basic comprehension of the text, even students with lower English proficiency were able to keep up with the whole process of the text-based analysis and discussion which required critical thinking.

VT routines were seen to not just facilitate text-based discussions, but were also observed to promote a culture where classroom discourse was grounded in criticality. Such an instance was also observed by Dass and Harun, (2021) who noted that VT routines resulted in positive implications for students' learning which included providing students the opportunity to construct new knowledge and giving them the confidence to ask questions and exchange ideas. Similarly, two teachers in the present study shared their particular experience of engaging with the routine "What Makes You Say That?":

> I trained students to form the habit of asking this question (What makes you say that?) and

> make critical point of views. It works very well in group discussion, make them questioning others idea and also justify for their own ideas. (Teacher 1)

Teacher 2 went on to share how this routine required students to provide justifications for their responses and how that was helpful in creating a culture of thinking.

> By getting them (students) to justify why, you can help promote deeper levels of thinking instead of just identifying what's the most important, you can get them to analyze why they think is most important or justify why they think it's not the most important. So you can take this one step further to promote more critical thinking. (Teacher 2)

As Ritchhart et al (2011) highlight, routines like "What Make You Say That" can be used as a regular part of classroom discourse, which can go a long way toward fostering a disposition toward evidential reasoning.

3.2 Challenges Encountered in Using VT

In this section the challenges faced by teachers have been separated into internal and external challenges.

3.2.1 Internal challenges

Internal challenges are regarded as those that are directly linked to the participants and VT routines. Two internal challenges are found by teachers

- The complexity of VT routines
- Teachers understanding of VT routines

The first internal challenge was related to the complexity of certain VT routines and the time that was needed to successfully embed them into the lesson. Although all VT routines have a detailed handout that can be obtained from Project Zero's Thinking Routine Toolbox, some routines like the "4 Cs" are relatively complex. In this case, some teachers indicated the need to spend a lot of time to explain the concept of the routines and give explicit instructions to students. This resulted in the implementation of the routine to be time-consuming, especially when teachers introduce the routine to students for the first time.

> It's hard to use all Cs in one lesson, because sometimes they (students) just don't get it, and I need to spend a lot of time to explain "what does the connection means", "what challenges could be", "how can you figure out the concept", something like these. And we need to give them (students) enough time to think, we need to discuss about each Cs, and we only have one hour per lesson. So sometime I divide them into two lessons. (Teacher 1)

> This one (4Cs routine) was harder because each of them, each of the different ideas took some time for the students to understand. So the first time I introduced these 4 Cs, we had to do them one by one quite slowly. So the students can get comfortable with them. By the end of the unit, they could do all four quite quickly, sort of more independently. (Teacher 3)

As illustrated by Teacher 3, students needed some time to get comfortable with different routines, especially the complex one. However, teachers also indicated that, although this routine is hard to understand at the beginning, once students had gotten used to it, they could easily follow the instructions and apply the routine independently.

Secondly, teachers' guidance is considered as the most important link in the process of using VT routines to develop students' CT ability. However, sometimes teachers can also make mistakes if they do not spend enough time to understand the VT routines and plan their lessons accordingly. Teacher 4 shared:

> I tried 4 Cs with my MYP2 students, we're looking at biographies. And so I was trying to get them to think "How can you connect yourself with the biographer or the subject of the biography?" But I messed this one up at this stage, I sort of abandoned it because my students were getting confused and I was also confused. (Teacher 4)

Teacher 4 also reflected on their experience of using the 4 Cs and realized that the routine was relatively complex and he did not spend enough time to understand it. When he went to the class, he nearly forgot what the 4 Cs were, so he could not explain the routines to students. Second, he did not have a clear way to match the 4 Cs to his teaching content. Obviously, from other people's autobiographies, it is difficult to define and find the 4 Cs including connect, challenge, concepts, and changes.

3.2.2 External challenges

Many of the external challenges mentioned by teachers were related to students and their surroundings. These challenges were relatively unavoidable and more difficult to control, which required teachers to predict in advance and come up with some strategies to deal with them.

Four external challenges were observed:

- Difficulty in providing critical answers;
- Lack of motivation;
- Internet dependence;
- Language proficiency

In terms of producing critical answers, it was noted that the more background knowledge students had of the topic, the easier it was to provide answers which had depth and displayed some amount of criticality in thinking.

> When I ask a question for the students to think about, there are always some students who struggle, and some students feel easy for it. Because if their family already talked about this, or they have some experience with this, it will be easier for them to produce critical answers. So for some students, different subjects, different questions can be different levels of critical thinking, depending on their own experience. (Teacher 3)

> I did 4 Cs twice in the same unit with the same topic, because I wanted to see the changes.

> And I noticed when the first time I asked these questions, I got the fewer answers. Some of them don't even get the meaning of the activity. And the second time, students were more active and performed better. (Teacher 2)

These two quotes indicate the role of content knowledge in critical thinking. As Ellerton (2022) pointed out that deep content knowledge is prerequisite to activating students' critical thinking capabilities.

Most teachers agreed that VT routines certainly made their teaching more interesting and guided students to engage more in critical thinking. However, motivation was still a challenge for some students. Some VT routine activities involve numerous questions, discussion and other interactions which require students to keep up with the rhythm of the teacher and necessitate active participation in the classroom. Participants found that certain students were reluctant to think when encountering difficulties. Therefore, when questions that trigger students' critical thinking appear in VT routines, these students are likely to keep quiet and wait for other students to give them the answer.

> Getting young teenagers to speak can be quite challenging sometimes. When you give them the questions, they just keep quiet, and you don't know if they are actually thinking or they just bemused, for some students, most of the time they are just waiting for the answers. (Teacher 2)

> Some students nowadays lack motivation, some of them (students) are just, I'm here, but I'm here in my body form, but my mind is so far away. I think some of them also have thoughts of if I just sit here long enough and don't answer, the teacher will just give me the answer eventually. (Teacher 4)

In Chinese international schools that adopt the IB curriculum, research skills are also a crucial approach to learning, so electronic devices are often used in the classroom to assist learning. In this case, some of the students have become overly dependent on electronic devices. Some participants noticed how the use of these devices affected students' thinking process and prevented them from thinking critically.

> I think sometimes they rely on the internet too much. If I ask them to do something like "Okay, what does Happy Family mean to you?" and they will be like "What does Happy Family mean to you?" (typing action). (Teacher 2)

> When I try to give the inquiry question for them, and they were like "Oh, just typing into Google or Bing". Because nowadays, if you look at kind of the WeChat videos, TikTok, and Instagram. Everything is just sort of given to you in this kind of short video form and reading demanding has went down, they're not really asked to think critically outside the store. (Teacher 4)

According to Plencner (2014), general users of the Internet are not aware of specific obstacles to opinion and decision making posed by easy availability of all kinds of unsorted information. As teenagers, students are usually unable to realize the impact of unclassified information from the Internet on their critical thinking.

The last external challenge was linked to students' language proficiency. Many teachers claimed that language did not hinder students' critical thinking ability, but it was an important factor that hindered students' ability to express their critical ideas.

> I think students with lower language proficiency can still think critically in their own language, but language proficiency can hinder the ability to express the way that you're thinking critically. So you might have the thoughts in your head in Chinese or in your mother tongue but you can't quite get it out and transfer to English. (Teacher 2)

> Many students have their own way of expression in Chinese, but the way of expression in English is very different from that in Chinese, so for low English proficiency students, It's hard for them to convert their ideas to English. (Teacher 1)

3.3 Suggested Mitigating Strategies for Challenges on VT

Participants pondered over their challenges when engaging with VT routines and then went on to relate practical strategies which they thought could mitigate these constraints.

Regarding the complexity of some VT routines which can cause the time-consuming problem, teacher 1 reflected that teachers may need to anticipate such problems when planning lessons and stressed that teachers know their students better than the VT routine chosen. Therefore, they can take steps to modify lessons and pay closer attention to time management when designing their lessons.

It's critical for teachers to comprehend the VT routine they select to utilize in the classroom, including a clear understanding of the execution steps, as well as appropriate integration of VT routines and teaching content. Teacher 4 provided a simple and practical solution for teachers to remember the procedure, which was to print out the handout beforehand so that it could be referred to during the lesson. He also suggested that teachers may need to spend more time to deeply think about the routine that they want to use and assess its suitability to their teaching content.

Since the content knowledge has been identified as a key factor in why some students find it challenging to produce critical responses, teachers may need to be patience and make an effort to push students to think critically when engaging with unfamiliar topics. As Teacher 1 recounted:

> I think teacher should be patient and give some examples when students can't come up with the satisfactory answers, or make the questions more specific. The guidance in the VT is only a general idea. Teachers needs to be more flexible and make some adaptations according to the situation of the students in their class and the teaching content. (Teacher 1)

In terms of students' motivation, teacher 1 suggested that teachers can use the house point system to motivate students to think. This teacher also reported using this system in their class and finding it useful. If students participate actively in class, they can get the house point for reward. (House system is a special tradition of the international schools where participants work, students were divided into 4 houses since they enrolled in this school, they can earn

house point for their house through good behavior, good performance and so on.) This is consistent with Eisenberger and Pierce (1999)' s finding, reward procedures requiring specific high task-performance convey a task's personal or social significance and this increase intrinsic motivation.

Teacher 2 mentioned that peer support can also be helpful. Sometimes active students can drive students who are relatively lack motivation to think. Kiefer, Alley and Ellerbrock (2015)' s research also showed that peer support is positively associated with student motivation, engagement, and belonging.

> I like to start group discussion when students are lack of motivation. But we need to be careful when we assign the groups to avoid the conversation break down. If I pair the active student with the low motivation student, and ask them to exchange and question each other's idea, it seems work very well, because sometimes students end up persuading other students of their point of view, and that can be quite interesting and helpful. (Teacher 2)

As for the internet dependence issue, teachers suggested that devices should not be used and instead students are to be encouraged to think independently or to discuss ideas in groups.

> So I think what teachers can do is try to take their devices kind of away from them and focus more on paper. Of course, you will hear lots of complaints about that, but think it's mostly for their own good. (Teacher 4)

> You need to clarify the requirements in advance. Sometimes we're trying to do with "Okay, close your laptop, put every irrelevant things away. Okay, now start your discussion. (Teacher 2)

When discussing how to lessen the effect of language proficiency on CT, ELA teachers encouraged students to think critically in Chinese and express their ideas in Chinese if needed. Cuartas Alvarez (2014) highlights that selective use of the L1 has succeeded in enhancing students' English learning processes. On the contrary, ELL teachers insisted that students needed to express their critical ideas in English. They suggested that students can ask for help from their peers or teachers and try to rephrase their words in a simpler manner. Translation tools can only be used for a few words but not the whole sentence. This aligns with Huang et al., (2010), who stated that peer support should be considered essential for language learners because students spend considerable time together learning the language and encounter similar language learning challenges.

4. Conclusion and Recommendations

Five VT tools were utilised by teachers in their class, and these were: "See, Think, Wonder", "Think, Pair, Share", "4 C's", "3-2-1 Bridge" and "What Makes You Say That?". The findings from this study suggested two ways of using these VT routines in EFL classroom in Chinese international schools to promote CT among students. Routines like "See, Think, Wonder", "Think, Pair, Share" can be used as lead-in, routines like "Think, Pair, Share", "4 C's", "3 2 1 Bridge" and "What Makes You Say That" can be applied to assist text-

based discussion. These findings show that the use of VT routines in English classes is flexible and can run through different stages of teaching from lead-in to core teaching, just as the cultivation of critical thinking has also been seen through different stages of participants English language lessons. This shows that teachers can creatively utilize and adapt VT routines according to the content to be covered and the needs of their students.

This study also identified six challenges and some corresponding suggestions proposed by the teachers. The challenges can be divided into internal challenges and external challenges. There are two internal challenges which are the complexity of VT routines and teachers' understanding of the VT routines. These challenges could be noticed and solved at the pre-teaching stage. The four external challenges related to students' difficulty in providing critical answers, lack of motivation, their dependence on the internet and their low language proficiency. To address these issues, teachers should spend more time planning lessons and predicting problems, be patient and build the content knowledge for students, promote motivation through peer support and reward systems, encourage the discussion rather than excessive use of technology, and support students' oral and written expression.

English teachers from Chinese international schools and elsewhere can gain insight from the experiences of the teachers in this study on what to expect in an EFL classroom which engages with VT routines. Dajani (2016) point out that teachers sometimes found it difficult to decide which routine was the most appropriate for the designed activity. This study provides the examples of how teachers have used VT routines and how they have been appropriated to suit various learning aims. The experience of participants in this study have also illustrated how CT can be cultivated through different means and what the possible challenges might be.

In future, further research can cover more VT routines and explore more ways of using them in language classrooms. Perspectives from students and their experiences of engaging with VT routines also can offer valuable insight into its effect on students learning. Further research can also be done by using quantitative methods or mixed methods, which include more teachers from different international schools and also public schools both in China and abroad.

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