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Teaching for Critical Thinking: Perceptions and Practices of Chinese Elementary School Teachers

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Abstract

In recent years, researchers have shown an increased interest in studying about critical thinking. Individuals with critical thinking are self-confident, and can listen and learn from others. This study examined the perceptions of Chinese elementary school teachers on critical thinking. It also examined how they teach to develop critical thinking among pupils. The study employed a qualitative approach. In particular, a case study design was used to examine the research questions. The study was conducted at Dong Bei Wang Zhong Xin Xiao Xue (东北旺中心小学), an elementary school in Beijing, China, located in HaiDian district, using a sample of 6 English language teachers. It employed focused group discussions and direct observations as methods of data collection. The results indicate that the teachers understand what entails critical thinking; and they are aware that critical thinking can be developed in actual classroom practices. Nevertheless, the results revealed that the teachers minimally practised what they understood about critical thinking in actual classroom practices. Since the results indicated that the teachers understand what entails critical thinking and are aware that critical thinking can be developed in actual classroom practices, the study recommends that teachers' classroom practices should reflect their perceptions of what constitutes critical thinking.

Keywords: *Chinese elementary schools, classroom practices, Confucian teachings, critical thinking, qualitative approach*

1. Introduction

Recent developments in education have emphasised on the need for teaching to develop critical thinking among learners. Nonetheless, in many schools teaching for critical thinking in classrooms has remained a paradox. For a teacher to produce pupils with critical thinking, s/he has some obligations to undertake. Teachers should creatively come up with relevant tasks that allow learners to ask critical questions and produce new ideas. The process enables students to be active learners who can create, re-create and understand how life works (Hooks, 2010). Unfortunately, studies (Freire, 2010; Hooks, 2010) have indicated that learners have always been passive observers in classrooms. Thus, there has been a mismatch between what curriculum specialists suggest regarding teaching for critical thinking among pupils, and actual classroom practices.

Thinking is a basic characteristic of any human being. One of the important abilities that schools should emphasise is the ability to think critically (Abdi, 2012; Demirhan & Köklükaya, 2014; Wangensteen et al., 2010; Theurer et al., 2016). Critical thinking

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sketches from the critical traditions of Marx, Hegel, Kant, Weber, the Frankfurt school of thought, Foucault, Habermas and Freire (Kincheloe & McLaren, 2005). Critical thinking is important for personal and societal transformation as it fosters self-awareness, self-perception, and self-evaluation. Hence, it helps an individual to make value judgments leading to changing in status quo and common sense. Scholars (e.g., Paul & Elder, 2006) have defined critical thinking as a self-reflective, self-directive, and self-corrective thinking. It is out of self-reflection that critical thinkers raise critical questions, and communicate effectively with others when figuring out solutions to problems.

Additionally, critical thinking has been described as a process of being inquisitive, keen in mind, concerned to remain well-informed, and flexible in considering alternatives (Pacione, 2013). Furthermore, the development of critical thinking requires learners to get engaged in learning: be curious and formulate questions, make dialogue, and negotiate new meanings. In this connection, learners become creative and develop skills needed throughout their lifetime and shape their search for solutions in the environment around them. For a matter of clarity, this study considered the definitions of critical thinking of scholars described above (e.g., Facione, 2013; Paul & Elder, 2006) as contextually relevant and suitable.

Numerous studies (Dong, 2015; Gelder, 2005; Hooks, 2010; Lloyd & Bahr, 2010; Swartz & Mcguinness, 2014; Willingham, 2007) maintain that critical thinking can be taught. Nevertheless, it is not a guarantee that every learner taught in ways that foster critical thinking will graduate as a critical thinker (Willingham, 2007). In other words, critical thinking is easily developed to learners who engage and participate in learning willingly (Freire, 2010; Hooks, 2010). It is important to note that individuals' critical thinking starts at the early stages of growth and development. In that regard, critical thinking has a place for everyone, including children at lower elementary levels (Willingham, 2007). In addition, critical thinking starts when children begin to develop a desire to discover the world in different perspectives (Hooks, 2010). It begins when children ask 'what', 'why', 'when', 'where', and 'how' questions related to the world around them.

It is important to note that the development of critical thinking in pupils requires that preparations for its implementation are put in place, and teachers change in perceptions and classroom practices. In this regard, the Chinese education system has undergone numerous educational reforms, including—just to mention a few—new curriculum reforms whose implementation was officiated in 2000 (Xu & Mei, 2009); outlines of the basic education curriculum of 2001 issued by the Ministry of Education (Dai et al., 2011; Wang 2009); the 2005 circular on the selection of compulsory education curriculum textbooks (Wang, 2009); and innovative curriculum such as that of the National Mathematics Curriculum Standards (Huang & Bao, 2006). In addition, however, educational reforms require teachers to willingly change their perceptions and classroom practices to be successful (ibid.).

As aforementioned, changes in policies do not guarantee changes in practices. This could be attributed to reasons such as misinterpretation of the policy by implementers, as well as teachers' resistance to change (Berkovich, 2011; Ibrahim et al., 2013; Snyder, 2017; Terhart, 2013; Yan, 2015). To be able to teach for critical thinking, teachers

should change their beliefs from their traditional ways of teaching to modern ways as reflected in educational reforms. Critical thinking has been recognised as important for an individual's success in classrooms and beyond classrooms (Dunne, 2015; Nold, 2017). It is useful in problem-solving and decision-making in any context: whether social, political, ethical, or managerial (Adeyemi, 2012; Gul et al., 2010; Ku & Ho, 2010). The argument is worthwhile because critical thinking makes pupils inquisitive, keen in mind, self-confident, and flexible in considering solutions to problems, as well as enabling them raise critical questions and communicate with others maturely (Facione, 2013; Paul & Elder, 2006). Therefore, any lack of these important attributes of critical thinking in pupils, among others, may result into becoming passive learners, and disrespecting other pupils' ideas as well.

2. Statement of the Problem

In general, the earlier-mentioned educational reforms (Dai et al., 2011; Huang & Bao, 2006; Wang, 2009; Xu & Mei, 2009) included updating curriculum content and encouraging schools to make pupils actively participate in the learning process. Thus, teachers were required to actively engage pupils in the learning process than merely making them recipients of materials. In this way, the focus of the reforms has been on teaching for critical thinking than teaching for rote learning. Notwithstanding the presence of such educational reforms that focus on learners' critical thinking, Wang (2010) has observed that there is a limited opportunity for questioning in Chinese classrooms. Further, he accentuated that Chinese pupils rarely speak up in classrooms because questioning the ideas of teachers appears unwise and time-wasting.

Similarly, scholars (e.g., Freire, 2010; Hooks, 2010) have pointed out that many children are silenced when they come across a system of education that emphasises on compliance. Dong (2015) has asserted that Confucian teachings have affected the Chinese to the extent that many learners end up memorising what they hear and see from their teachers. Basically, a teacher who teaches for critical thinking must be familiar with the concept itself, as well as the methods of teaching it, to develop it among pupils. Nonetheless, the literature has indicated that the concept 'critical thinking' itself is unclear among teachers and pupils (Ijaiya et al., 2011; Mwalongo, 2014; Trede & McEwen, 2015). Also, there is less agreement on how critical thinking can be developed to pupils (Cargas et al., 2017; Stupple et al., 2017; Tiruneh et al., 2014). From the above observations, a few questions came into mind:

(a) How do pupils develop their critical thinking if there are limited opportunities for them to question, and if they rarely speak up in the classroom?
(b) How do pupils develop their critical thinking if they end up memorising what they see and hear from their teachers?
(c) How do teachers teach to develop critical thinking if they are unfamiliar with the concept itself?
(d) How do teachers teach to develop critical thinking, if there are limited opportunities for pupils to question and pupils rarely speak up in the classroom?

These were the concerns that made the researcher develop the research questions that guided this study.

3. Research Questions

Given the importance of critical thinking among pupils, and given that little is known on whether the educational reforms adopted in Chinese education are put into practice, this study became significant than ever. There is a need to examine teachers' perceptions of the concept of critical thinking, as well as how teaching for critical thinking is implemented practically. Since many literatures (Dai et al., 2011; Nuangchalerm, 2014; Wang 2009; Xu & Mei 2009) solely provide suggestions on how teaching to develop critical thinking should look like, this present study seeks to examine Chinese elementary school teachers' perceptions of critical thinking, as well as how they teach to develop it among pupils in actual classroom practices. Thus, the following two research questions guided the study: (i) What are the Chinese elementary school teachers' perceptions of critical thinking? and (ii) How do the Chinese elementary school teachers teach to develop critical thinking among pupils?

4. Significance of the Study

The audience of this study are elementary school teachers in China and Tanzania, policymakers, researchers in elementary schools, and researchers in the area of critical thinking. Considering the dearth of research on this topic in low and middle-income countries such as Tanzania, it is expected that this study will be a refreshing contribution to the ongoing discourse on the matter. In other words, the study will initiate debate on critical thinking among researchers in the Tanzanian context. The paper also will shed more light on the Chinese elementary school teachers' good practices. Thus, it will provide lessons to Tanzanians on the conceptualisation of critical thinking, as well as how to teach to develop critical thinking.

5. The Confucian Teachings: A Theoretical Framework

Confucius was born in the Shandong Peninsula in 551 BCE, and he is currently regarded as the first Chinese teacher (Eno, 2015; Lau, 1979). Throughout his lifetime, he emphasised on learning, as well as respecting others. To him, respecting others meant listening to others, as well as being able to learn from them. For instance, in one of his teachings he stressed that at early years of growth, young people should set their hearts on learning (Eno, 2015; Lau, 1979). Nevertheless, he warned that learning from others must go hand in hand with thinking. To quote his own words: "if you study but don't reflect, you'll be lost. If you reflect but don't study, you'll get into trouble" (Eno, 2015: 7). In this quotation, Confucius emphasises on critical thinking because reflection is an integral part of critical thinking.

However, other scholars (e.g., Dong, 2015; Wang, 2010) have documented that Confucian teachings have placed parents and teachers as authoritative sources of knowledge. Young people have an obligation to listen to parents and teachers with compliance. In support of this argument, Eno (2015) observed that, in his teachings, Confucius told one of his students that they should never fail to comply or act in accordance with the orders of those with authority. It is from this root that many Chinese students rarely speak up in the classroom, or ask questions to teachers or among themselves (Dong, 2015; Wang, 2010). Basically, when we reflect and speak up, we develop many skills that are related to critical thinking than when we reflect and remain silent.

Succinctly, the major goal of going through various educational ladders is to advance our critical thinking. Critical thinking helps us to have inquisitive minds, as well as formulate and ask better questions. Within such logic, critical thinkers are necessarily good inquirers. Thus, when pupils are taught for critical thinking by formulating and asking better questions, they reflect and become good inquirers. Similar to this argument, Hooks (2010) asserted that critical thinkers have inquiring minds, and so most of the time they question whatever they see, hear, and experience in their daily lives. Consequently, if pupils are engaged in reflecting and questioning, their critical thinking improves.

In that respect, by teaching pupils to ask critical questions they become more critical. Thus, in this regard, a teacher plays a crucial role in promoting critical thinking among pupils. In line with this observation, Mandernach et al. (2009) underlined that instructors' level of interactivity has a significant role in developing critical thinking among pupils. Interaction facilitates and encourages classroom dialogue. As teachers interact with pupils in the classroom, they also assist them to explain their arguments (Pacho, 2013). As a result, teachers who guide learners by posing critical questions foster reflection, and hence develops their critical thinking.

Although teaching to develop critical thinking among pupils has received an increased attention among many teachers (Gelerstein et al., 2016; Kettler, 2014; Larsson, 2017), the process has faced countless difficulties. First, teachers mirror themselves to be improperly trained for teaching to develop critical thinking (Msila, 2014). The second major obstacle is insufficient teaching materials, class space, time given for pupils to reflect, shortage of motivated teachers, and inappropriate classroom facilities (Kavenuke, 2018; Sumra & Rajani, 2006). Third, teacher-student dichotomy—the demands of teaching by the use of critical pedagogy—contradicts with local and school understandings of authority structures (Dong, 2015; Freire, 2010; Kavenuke, 2018; Vavrus & Bartlett, 2013; Wang, 2010). As a result, teachers have been curtailed from encouraging classroom discussion that develops critical thinking among pupils. Overall, from the reviewed literature, it is noted that only a few studies have examined Chinese elementary school teachers' perceptions of critical thinking. Also, only a few have examined how Chinese elementary school teachers teach to develop critical thinking among pupils as a means of implementing educational reforms.

6. Methods

6.1 Research Approach and Design

The study employed a qualitative approach. In particular, a case study design was used to examine the research questions. A case study design is a common strategy when a researcher intends to answer 'what', or 'how' questions (Yin, 2003), such as the two research questions guiding this study. In addition, Given (2008) posited that qualitative researchers are most interested in individual perception to gain access to understanding the meaning of individual experiences. Given (ibid.) further argued that gaining access to understanding the meaning of individuals' experiences is done by allowing them to give voice to their perceptions usually through narratives and storytelling. In this way, the researcher wanted to generate in-depth data about Chinese elementary school teachers' perceptions of critical thinking, as well as their ways of teaching to develop it among pupils within some real-life context (Bryman, 2012; Yin, 2003).

6.2 Research Site

This study was conducted at Dong Bei Wang Zhong Xin Xiao Xue (东北旺中心小学), an elementary school in Beijing, China, located in the HaiDian district. China was selected because it is one of the countries that emphasise much on high stakes examinations despite the presence of educational reforms that encourages teaching for critical thinking than mere testing (Yan, 2015). This school in HaiDian district was selected on the basis that it had joined the English storybooks-reading project since 2014. In this project, pupils were involved in reading storybooks; and finally, they were asked critical questions such as the 'whys', 'hows' and 'whats' of the stories. This is in line with what scholars argue: that, among others, the critical thinking of a person is measured by the way s/he reflects (Freire, 2013; Halx & Reybold, 2005) on questions, as well as the way s/he organises ideas (Derrick-Telemaque, 2014; Shin, Park, & Kim, 2015) in responding to such questions.

6.3 Population and Sampling Procedures

The sample of the study included 6 English language teachers from the selected elementary school in the HaiDian district. The participants were purposefully selected because they were teaching English subject, the only subject that was involved in the storybooks-reading project. Also, these participants were the class teachers, each teaching a certain class level, that is, from Class 1 to 6. In this school, once a teacher is given a class to teach, for example Class 1, s/he must go with those pupils up to Class 6. Consequently, the population was basically selected based on the fact that participants had rich data relevant to the study. For instance, in the English storybooks-reading project, teachers were required to ask critical questions to pupils to develop pupils' critical thinking. In this way, teachers in that school were able to tell the nature of questions they ask to pupils if they want them to generate critical ideas because they had spent enough time with them.

6.4 Data Collection and Analysis

The study used focused group discussions (FGDs) and direct observation methods. The choice of these methods aimed at capturing data relevant to Chinese elementary school teachers' perceptions of critical thinking, as well as how they teach to develop critical thinking among pupils. On one hand, focused group guide questions were designed to respond to the research question that intended to examine teachers' perceptions of critical thinking. On the other, the questions helped to respond to the research question that examined how teachers teach to promote critical thinking among pupils. This method involved meeting all 6 English language teachers in a single group to discuss on the topic under study. The researcher conducted the FGD sessions in March, 2019. The time taken to complete one discussion was one hour and twenty minutes. Bryman (2012) argued that FGD is a qualitative method of interviewing that is more effective when there are more than four interviewees for the purpose of critiquing one another on the issue under discussion. Thus, the FGD method was inevitable in this study because the researcher wanted to discuss the topic with participants as members of a group, rather than mere individuals (Bryman, 2012). The data obtained through this method were voice-recorded.

Further, direct classroom observations were used to crosscheck teachers' responses in the FGDs within the actual classroom teaching practices. Direct classroom observations focused

on how teachers teach to foster critical thinking among pupils. The items observed—which are in a way the indicators of teaching to develop critical thinking among pupils—included posing 'what', 'why' and 'how' questions, making dialogue, teaching for and with reflection, asking critical questions to pupils, as well as allowing pupils to ask questions to teachers and fellow pupils, to mention a few. To limit to the activities germane to the research questions, the researcher designed an open-observation checklist. The researcher used the note-taking technique to note activities that teachers undertook in the classroom that either fostered or hindered critical thinking. Similar to the FGDs, classroom observations also took place in March, 2019. Each teacher was observed to a point where the researcher found the items being observed were recurring—usually referred to as a saturation point in qualitative research (Wellington, 2015). In that regard, teachers started displaying similar behaviours when each was observed three times in different days. Table 1 summarises the classroom observations schedule.

Table 1: Classroom Observation Schedule

Teacher's Pseudo-name	Observation Date	Observation Time Length per Single Observation (in Minutes)	Observation Frequency
Teacher A	March, 2019	40	3
Teacher B	March, 2019	40	3
Teacher C	March, 2019	40	3
Teacher D	March, 2019	40	3
Teacher E	March, 2019	40	3
Teacher F	March, 2019	40	3

Furthermore, data obtained through FGD were voice-recorded, transcribed, and coded. From the codes developed, themes were generated (Bowen, 2009). This was done by reducing and categorizing the data into themes such as asking critical questions, making dialogue, and producing new ideas, to mention a few. Basically, it is almost impossible to present the voices of all participants in a study (Moosa, 2013). Thus, a few of the individual quotations and voices identified in FGDs that were more relevant to the themes developed were used to support arguments. Additionally, data obtained via direct classroom observations were equally coded, and from the codes, themes relevant to the study were generated.

6.5 Ethical Issues and Consideration

Ethical issues were considered in the process of conducting this study. A formal document indicating the permission to enter the school was provided to the researcher by the Headteacher. The teachers were asked to fill a consent form to indicate their willingness to participate in the study. For the purpose of anonymity and confidentiality (Hett & Hett, 2013; Holliday, 2013; Moosa, 2013; Shamim & Qureshi, 2013), the participants were given pseudo-names (see Table 1).

7. Results

To reiterate the research questions, the study intended to examine Chinese elementary school teachers' perceptions of critical thinking. It also aimed to examine how they teach to develop critical thinking among pupils. The results are presented in accordance with the research questions.

7.1 Chinese Elementary School Teachers' Perceptions of Critical Thinking

Results revealed that the Chinese elementary school teachers had a thorough understanding of what entails critical thinking. They reported that critical thinking constitutes asking critical questions, allowing pupils to speak up in the classroom, as well as reflecting on ones' own thinking. In addition, the Chinese elementary school teachers conceptualised critical thinking as a concept that requires them to set an environment for pupils to ask questions and speak up to teachers and fellow pupils.

Regarding asking critical questions, the Chinese elementary school teachers reported that critical thinking is associated with asking critical questions. They highlighted that asking critical questions to pupils necessitates participation in the teaching and learning process because pupils are obliged to critically reply to the teacher. Teachers emphasised that asking critical questions must be a reciprocal process: teachers must ask pupils, and likewise pupils must ask critical questions to their teachers and their fellow pupils. One teacher had this to highlight on the point:

> *"In my own opinion, asking critical questions has to be reciprocal. It makes no sense if it is only a teacher who keeps asking questions to pupils. Pupils have to reflect on teachers' questions, respond to the questions and come up with other questions which can be posed to the teacher or to fellow pupils. In this way, I believe teachers and pupils together become critical thinkers."* (Teacher B, FGD, 2nd March, 2019).

In addition, the teachers reported that critical thinking is linked with teachers setting an environment that allows pupils to speak up and make dialogue in the classroom. Teachers maintained that a pupil who speaks up and makes dialogue in the classroom develops his/her critical thinking. This is because, just like in writing and reading, when we speak up and dialogue, we necessarily think critically of what to speak up and dialogue. To highlight on this, one teacher underscored that:

> *"To me, the critical thinking of a pupil goes hand in hand with his or her ability to speak up and make dialogue with other pupils in the classroom. This is almost similar to the current education policies that are emphasizing on engaging pupils in the classroom. When pupils make dialogue in the classroom, we [teachers] are in a better position to understand how critical are the pupils."* (Teacher C, FGD, 2nd March, 2019)

Further, the teachers reported that they perceive critical thinking as a concept that requires pupils to re-think about their own thinking. In other words, they perceived critical thinking as a concept that stresses on reflecting on ones' own thinking. They went further to advance that such self-reflective thinking is effective when pupils learn in pairs. These teachers contended that with critical thinking, pupils tend to participate in lessons. Related to pupils' reflecting on their own thinking, the teachers revealed that they usually give them enough time to reflect on a question before they attempt it. They reported that this practice has made pupils come up with their own new stories after reading a story together in the classroom.

7.2 Teaching for Critical Thinking among Chinese Pupils

In this study, teaching for critical thinking took different approaches. Teachers varied in the way they teach to develop critical thinking. The results are presented hereunder.

To develop pupils' critical thinking, the Chinese elementary school teachers reported that they normally encourage pupils to creatively come up with new ideas. They reported that, for pupils to be able to produce new ideas, they have to think in a different way. The teachers emphasised that they usually encourage pupils to produce ideas that are unique. To be unique in terms of ideas construction, teachers stressed that in the process of producing ideas each pupil has to come up with an idea or a sentence different from what others have said. This was pointed out by one teacher thus:

> *"Personally, I encourage them to say different things from what another pupil says, in a creative way. For instance, I like blue colour because of blah! blah! ... another one has to say and justify differently provided it is related to the topic; such as, I like pink colour because it is beautiful to me. In this way, as they think differently and come up with new ideas, they develop their critical thinking."* (Teacher D, FGD, 2nd March, 2019)

Furthermore, the teachers reported that to develop critical thinking in pupils, they usually teach by asking critical questions. Teachers reported that to develop critical thinking in pupils, they use 'how', 'why' and 'what do you think' questions, rather than 'Yes/No' questions such as: 'Is it okay' or 'Right?'. They described that using 'how' and 'why' questions require pupils to think and justify whatever they want to talk about, which is different from 'Yes/No' questions that measure the lower order thinking of recalling. One teacher emphasised that:

> *"Through the reading project that had been in practice for some years at the school, all pupils from grade three to six are involved in reading storybooks and asked why, how, and what questions based on the story. From my own experience, the questions asked by teachers have helped pupils develop their critical thinking abilities*." (Teacher A, FGD, 2nd March, 2019)

Additionally, the Chinese elementary school teachers have been allowing pupils to ask questions as a way of teaching to develop critical thinking in pupils. This idea of teachers allowing pupils to ask questions is more or less like a teacher ensuring that teaching and learning is engaging. However, the teachers pointed out that, for teaching and learning to be engaging, a teacher has an obligation to set an environment that would make teaching and learning truly involving. To complement on the idea of a teacher allowing pupils to ask questions, one teacher had this to say:

> *"I usually allow my pupils to ask questions as a technique of teaching to develop critical thinking. In my view, allowing pupils to ask questions develops self-confidence in pupils. The technique also gives pupils a room to express their thinking, which is part of critical thinking."* (Teacher F, FGD, 2nd March, 2019)

As reflected in the quotation above, to these teachers, allowing pupils to ask questions develops the pupils' self-confidence and ability to express, which also forms a part in the development of critical thinking.

Further, the Chinese elementary school teachers reported that giving enough time for reflection is a prerequisite for promoting critical thinking among pupils. They opined that a pupil who is given enough time to reflect on the answers s/he wants to give before responding, and one who is not given time to reflect, differ in terms of the inculcation of

critical thinking. They revealed that the one who is given enough time is likely to come up with many alternatives and choose the best one, while the one who is not given enough time is easily silenced mentally. When I noted that this idea of 'giving enough time' is recurring, I had to ask how long is time deemed enough? To this, one teacher responded thus:

> *"Mmmh! Mmmh! to me, I think a minimum of one minute can be helpful to pupils who are asked a question. Although, we emphasise on giving enough time, it has been a culture among us of giving a few seconds to pupils. Some teachers have tended to either move to other pupils or provide the answers by themselves when they note that a pupil asked a particular question is not responding quickly."* (Teacher B, FGD, 2nd March, 2019)

In fact, from my own experience as an educator who has always taught to foster critical thinking among learners, a minimum of a single minute may be deemed enough for a learner to reflect on the answers relevant to a question asked by a teacher.

Moreover, the Chinese elementary school teachers reported that they use a 'learning in pairs' technique in teaching to develop critical thinking among pupils. They reported that the technique is used for competition purposes. As they compete, pupils must think critically and come up with a point to win the other pair, thereby developing critical thinking. All teachers in the FGDs reported that they normally form pairs in accordance with pupils' ability to speak English. Since language is used to communicate thinking, those who are good at English were reported to be 'little' teachers who helped those who are not so good at English while learning in pairs. However, a teacher may intervene in the process and focus more on the one who is not so good in speaking English. One teacher stated that:

> *"If a 'why' or 'how' question is asked, a pair which will answer in one sentence is given one point, likewise a pair that answers in ten sentences is given ten (10) points. To us, learning in pair develops critical thinking because of competition and the need to score more points. So, pupils are obliged to think as much as they can to come up with many sentences to win other pairs and score more points."* (Teacher E, FGD, 2nd March, 2019)

This observation brings us back to the concept of teaching and its overall purpose: Is teaching for improvement and development of critical thinking, or for testing and grading, which is contrary to the current aims of educational reforms in many countries, including China? Also, the teachers reported that while pupils learn in pairs, they become free to ask the 'little teachers' for more examples when something is unclear. In this way, pupils also learn to respect other pupils' ideas, and so grow up as children of good character.

Also, the teachers reported that they have been using demonstrations, actions, texts, and pictures when teaching for critical thinking. They pointed out that the use of these tools highly develops pupils' critical thinking because when pupils see texts, pictures or a teacher demonstrating, many questions arise in their mind about those texts, pictures, or actions; and sometimes they want to participate directly in demonstrations. The teachers referred to this technique as 'making real situations for pupils to learn'. Five (5) out of six (6) teachers in the FGDs reported to have been using this technique to foster critical thinking in pupils. To explicate this, one teacher exemplified that:

> *"When I teach about animals, pupils are taught the parts of organs of that animal (say an eye, ear, nose, mouth, and hair). Finally, I inquire pupils to represent a mental picture form, where pupils must place each part of an entire organ on a board to form the whole (say the tiger's head)."* (Teacher A, FGD, 2nd March, 2019)

The teacher reported that from this, a pupil learns new words, understands how a tiger looks like, can draw it, and several questions can then emerge from the exercise.

Equally important, the teachers reported to have been using pupils' native language to translate some sentences in the new language (English) as a means of making a classroom active to develop critical thinking. The teachers believed that pupils think better in their native language than in a second language. Therefore, to teach for critical thinking, all teachers encouraged pupils, first to use Mandarin to think and then translate the words/ sentences into the English language. For words/sentences that seemed to be new and difficult to understand, teachers indicated that they allowed pupils first to say them in Mandarin, and then a teacher translates them into English. Sometimes, teachers themselves say the words/sentences in Mandarin, and then translate them for pupils to comprehend.

Apart from the FGD results presented above, results from direct classroom observations were also reported. Overall, the findings indicated that what the Chinese elementary school teachers described in FGDs was minimally observed during classroom observations. For instance, only three (3) out of six (6) teachers posed 'why' and 'how' questions when teaching. The rest used simple questions such as: 'Is it okay' or 'Right?' Similarly, on allowing pupils to ask questions, results from classroom observations indicated that most teachers did not set an environment for pupils to ask questions. It was noted that of all the six (6) teachers involved in the study, none set an environment for pupils to ask questions to the teacher or among fellow pupils. In turn, none of the pupils observed indicated a sign of being curious to ask a question. All students were silently listening to their teachers.

Also, it was observed most teachers did not give enough time to pupils to reflect on the questions asked before they responded, which is different from what the teachers reported in FGD sessions. Only two (2) out of the six (6) teachers gave time for pupils to think before they responded to questions. Often, when a teacher asked a pupil a question, only a few seconds were allotted, and if the pupil did not provide an answer, the teacher immediately moved to another pupil or responded it herself.

Furthermore, learning in pairs as a method used to teach to foster critical thinking was evident in the classroom during direct classroom observations among all the teachers. While learning in pairs, pupils produced many sentences for a single 'why' question. Nevertheless, from the direct classroom observations, a question comes on how 'learning in pairs' develops critical thinking. The observed 'learning in pairs' method was totally a drill in the form of repetition of sentences. In the process, I asked Teacher C whether repetition is for memorization or understanding. The teacher responded: "*In China in order to understand, one has to repeat several times and that makes us remember and finally understand the concept in its entirety*" (Teacher C, FGD, 2nd March, 2019).

Moreover, native language was used to translate some words/sentences into the new (English) language. The FGDs indicated that all teachers allowed pupils to use Mandarin in learning English as a way to make a classroom more active. Interestingly, it was observed that when pupils were allowed to use Mandarin, they were more active and indicated some signs of being curious to learn more than when told to use English. Likewise, during direct classroom observations, it was noted that almost all the Chinese elementary school teachers (5 out of 6) who reported in the FGDs to have been using demonstrations, actions, texts, and pictures as a method of teaching to develop critical thinking were consistent. They were observed to use this technique in different examples related to the lesson units.

8. Discussion

The major purpose of this study was to examine the Chinese elementary school teachers' perceptions of critical thinking. Also, it intended to examine how the teachers teach to develop critical thinking among pupils. For the purpose of coherence, the discussion section is divided into two sub sections.

8.1 The Chinese Elementary School Teachers' Perceptions of Critical Thinking

Results from the study indicated that the Chinese elementary school teachers understand what entails critical thinking. They believed and saw the possibility of teaching a pupil to become a critical thinker. Similarly, many other researchers (e.g., Dong, 2015; Gelder, 2005; Hooks, 2010; Lloyd & Bahr, 2010; Swartz & Mcguinness, 2014; Willingham, 2007) maintain that critical thinking can be developed among pupils. While much of the literature has described critical thinking as a skill (Facione, 2013; Kavenuke, 2018; Paul & Elder, 2006); and in terms of functions that critical thinking does (Brookhart, 2010; Kavenuke, 2018), an examination of the Chinese elementary school teachers perceptions indicated that they perceived critical thinking in terms of what teachers and pupils should be engaging in during teaching and learning. They perceived critical thinking as a concept associated with teachers allowing pupils to ask critical questions among themselves, as well as setting conducive environment for pupils to speak up in the classroom. Thus, it is not surprising to find some of the themes responding to research question number one recur in research question number two.

Indeed, setting a conducive environment for pupils to speak up and make dialogue must be emphasised because dialogue is a powerful tool for critical thinking, creation of self-confidence, learning to listen to others' ideas, and the preparation of lifelong problem-solvers (Freire, 2010; Hooks, 2010). In the process of necessitating pupils to ask critical questions and make dialogue, teachers assist learners to clarify their thinking as a way to develop their critical thinking (Pacho, 2013). However, it is important to note that, while some scholars have reported speaking up and making dialogue on given tasks as a way to conceptualise critical thinking (Freire, 2010; Pacho, 2013), others have warned that speaking up and making dialogue has to be balanced with learning to listen to other people's ideas (Burke, 2011; Fung, 2017).

Furthermore, results indicated that the Chinese elementary school teachers are aware that a pupil who is given enough time to reflect is likely to come up with many alternatives before choosing the best, while the one who is not given enough time is easily silenced

mentally. Such observation is similar to those of Marshall et al. (2009) who suggested that developing critical thinking means a shift in the way we think about the use of class time. Extra time is needed to allow pupils to reflect, share, and question.

8.2 Teaching for Critical Thinking among Chinese Pupils

While the FGD results indicated that teachers are aware that pupils who are given enough time to reflect are likely to come up with many alternatives to problems, direct classroom observations produced contradicting results. Results indicated that when teachers asked questions to pupils, only a few seconds were given to them. It is as well unfortunate that if a pupil did not answer, a teacher moved to another pupil or provided the answer by herself. This experience is similar to that of Paulo (2014), who observed that many teachers hardly give enough time for learners to reflect on questions asked.

Hooks (2010) posit that when students either ask or are asked 'why' and 'how' questions, they can express their understanding of the world around them. As reported in the results above, all teachers hardly set the environment for pupils to ask questions. Disappointingly, on return pupils hardly asked questions to teachers. The question is why did pupils hardly ask questions neither to their teachers nor to their fellow pupils. This may be due to socio-cultural factors, which Wang (2010) has observed: that, in China, teachers are often regarded as authoritative parents, and hence pupils must comply with whatever they tell them.

On the aspect of learning in pairs, results indicated that this develops pupils' critical thinking. Nevertheless, from the direct classroom observations, a question arose as on how 'learning in pairs' develops critical thinking. It was revealed that learning in pairs was in the form of the repetition of sentences. These results indicated that, in China, one has to repeat the content being studied several times to understand it; a practice believed to make one remember and hence understand better a concept as a whole. In line with this observation, Dong (2015) pointed up that the Chinese have been affected by the Confucian teachings to the extent that passive pupils are obliged to memorise exactly whatever an authoritarian teacher says as a true knowledge. Given the culture of memorizing, Chinese pupils typically think of understanding as a long process that requires sustained mental efforts. As a result, to deepen their impression of the concept being repeated, they find themselves using repetition, hence memorizing it, and finally developing an understanding by discovering new meanings.

Further, learning in pairs resulted into grouping of pupils. The study unveiled that in the process of struggling to help pupils grasp how to think critically as they are involved in a subject matter, teachers find themselves grouping pupils as little teachers (pupils good in speaking English), and weaker pupils (pupils not so good in speaking English). While teachers' intentions may be good, this grouping leads to labelling among pupils: i.e., pupils with high ability, and pupils with low ability. This may have a negative impact to learners (Osterholm et al., 2007) that are labelled to have low ability. To make the learning in pairs technique more effective, teachers have to make a follow-up of the process to avoid pupils with low ability being negatively labelled by others. Zakelj (2013) argue that learning in pairs is effective if teachers make a follow-up by guiding and adjusting teaching methods and teaching materials to pupils.

Moreover, results indicated that teachers used demonstration, texts, and pictures as ways to develop critical thinking in pupils. Similar to what was reported in the FGDs, direct classroom observations showed that teachers used this technique in classroom teaching. These results are identical to those of Paul and Elder (2006) who proclaimed that this technique has the advantage of making learning real and relevant to pupils' situations. Although the aim of using the technique among teachers is to arouse curiosity in pupils, it is surprising that yet pupils hardly came up with any question. This experience takes us back to the study by Wang (2010), who asserted that Chinese pupils hardly speak up in class as teachers are often regarded as authoritative parents to whom pupils must obey. Other scholars (e.g., Ren & Tao, 2014) have gone further to argue that Chinese pupils are more or less like 'computers' whose roles are to remember the entered package without any personal analysis.

In addition, as noted in the results section, classroom observations revealed that when pupils could use Mandarin, they were more active and curious than when told to use English. Such an observation takes us to the issue of language in education, specifically the language of instruction being either a tool for liberating or silencing learners (Kavenuke & Uwamahoro, 2017). Similarly, studies (Brock-Utne, 2004; Qorro, 2006; UNESCO, 2008) have indicated that learners express their ideas freely when they use their local languages or lingua franca, which they often use than a foreign language.

9. Limitation of the Study

This study was purely qualitative in character. Studies such as this tend to take an inductive approach to the relationship between research and theory (Bryman, 2012). As a result, the findings of this study cannot be generalised to other settings.

10. Conclusion

The study concludes that despite the Chinese elementary school teachers' understanding of what entails critical thinking and how to teach for critical thinking, yet they minimally demonstrated it in classrooms. Many of the findings from the FGDs slightly tallied with the findings from the direct classroom observations. In other words, much of what they reported in the FGDs is not what they practised in actual classroom setting. Hence, there was a kind of a mismatch between what the teachers know, and what they actually practise in classrooms. Thus, what they understand about teaching for critical thinking must be turned into practice. To be able to turn what they understand into practice, the teachers need to change their beliefs as well as their ways of teaching from the traditional to the current learner-centred approach of teaching and learning.

Blaming the teachers on why they hardly set the environment for pupils to ask questions may be improper. As revealed in this study, the Confucian teachings, and socio-cultural issues are some of the limiting factors. Therefore, the study recommends the need for Chinese families and schools to constantly and deeply groom children with a culture of curiosity by being more sceptical on situations around them. Furthermore, a similar study may be conducted by focusing on classrooms whose language of instruction is Chinese language to find out whether the language of instruction is a barrier to the promotion of critical thinking in Chinese elementary schools.

References

Abdi, A. 2012. A study on the Relationship of Thinking Styles of Students and their Critical Thinking Skills. *Procedia - Social and Behavioral Sciences*, 47: 1719–1723. https://doi.org/10.1016/j. sbspro. 2012.06.889.

Adeyemi, S. B. 2012. Developing Critical Thinking Skills in Students: A Mandate for Higher Education in Nigeria. *European Journal of Educational Research*, 1(2): 155–161. https://doi.org/ 10.12973/eu-jer.1.2.155.

Berkovich, I. 2011. No we won't! Teachers' Resistance to Educational Reform. *Journal of Educational Administration*, 49(5): 563–578. https://doi.org/10.1108/09578231111159548.

Bowen, G. A. 2009. Document Analysis as a Qualitative Research Method. *Qualitative Research Journal*, 9(2): 27–40. https://doi.org/10.3316/QRJ0902027.

Brock-Utne, B. 2004. English as the Language of Instruction or Destruction-How Do Teachers and Students in Tanzania Cope? *Linguistic Agency University of Duisburg-Essen*, (Paper No. 598): 1–25.

Brookhart, S. M. 2010. *How to Assess Higher-Order Thinking Skills in your Classroom*. United States of America: ASCD.

Bryman, A. 2012. *Social Research Methods* (4th ed.). New York: Oxford Univerisity Press.

Burke, A. 2011. Group Work : How to Use Groups Effectively. *Journal of Effective Teaching*, 11(2): 87–95.

Cargas, S., S. Williams & M. Rosenberg. 2017. An Approach to Teaching Critical Thinking Across Disciplines Using Performance Tasks with a Common Rubric. *Thinking Skills and Creativity*, *26*, 24–37. https://doi.org/10.1016/j.tsc.2017.05.005.

Dai, D. Y., K. A. Gerbino & M. J. Daley. 2011. Inquiry-Based In China: Do Teachers Practice what they Preach, and why? *Frontiers of Education in China*, 6(1): 139-157.

Demirhan, E. & A. N. Köklükaya. 2014. The Critical Thinking Dispositions of Prospective Science Teachers. *Procedia - Social and Behavioral Sciences*, 116(2006): 1551–1555. https://doi.org/ 10.1016/j.sbspro.2014.01.433.

Derrick-Telemaque, E. 2014. *The Relationship of Academic Achievement between Critical Thinking and Associated Dispositions: A Canonical Correlation Analysis*. Andrews University.

Dong, Y. 2015. Critical Thinking Education with Chinese Characteristics. In M. Davies & R. Barnett (eds.). *The palgrave Handbook of Critical Thinking in Higher Education*. USA: Palgrave Macmillan.

Dunne, G. 2015. Beyond Critical Thinking to Critical Being: Criticality in Higher Education and Life. *International Journal of Educational Research*, *71*, 86–99. https://doi.org/10.1016/ j.ijer. 2015.03.003.

Eno, R. 2015. *The Analects of Confucius*. London: Penguin Books Ltd.

Facione, P. A. 2013. *Critical Thinking: What it is and why it Counts*. Millbrae: Measured Reasons and The California Academic Press.

Freire, P. 2010. *Pedagogy of the Oppressed*. New York: The Continuum International Publishing Group Inc.

—. 2013. *Paulo Freire: Education for Critical Consciousness*. London and New York: Bloomsbury Academic.

Fung, D. 2017. The Pedagogical Impacts on Students' Development of Critical Thinking Dispositions: Experience from Hong Kong Secondary Schools. *Thinking Skills and Creativity*, *26*(October): 128–139. https://doi.org/10.1016/j.tsc.2017.10.005.

Gelder, T. V. 2005. Teaching Critical Thinking: Some Lessons from Cognitive Science. *College Teaching*, 53(1): 41–48.

Gelerstein, D., M. Nussbaum, P. Chiuminatto & X. López. 2016. Designing and Implementing a Test for Measuring Critical Thinking in Primary School. *Thinking Skills and Creativity*, *20*, 40–49.

Given, L. M. (ed.). 2008. *The Sage Encyclopedia of Qualitative Research Methods*. Los Angeles: SAGE publications, Inc.

Gul, R., S. Cassum, A. Ahmad, S. Khan, T. Saeed & Y. Parpio. 2010. Enhancement of Critical Thinking in Curriculum Design and Delivery: A Randomized Controlled Trial for Educators. *Procedia - Social and Behavioral Sciences*, *2*, 3219–3225. https://doi.org/10.1016/j.sbspro.2010.03.491.

Halx, M. D. & L. E. Reybold. 2005. A pedagogy of Force: Faculty Perspectives of Critical Thinking Capacity in Undergraduate Students. *The Journal of General Education*, 54(4): 293–315.

Hett, G. & J. Hett. 2013. Ethics in Intercultural Research: Reflections on the Challenges of Conducting Field Research in a Syrian Context. *Compare: A Journal of Comparative and International Education*, 43(4): 496–515.

Holliday, A. 2013. The Politics of Ethics in Diverse Cultural Settings: Colonising the Centre Stage. *Compare: A Journal of Comparative and International Education*, 43(4): 537-554.10.1080/03057925.2013.797775.

Hooks, B. 2010. *Teaching Critical Thinking: Practical Wisdom*. New York: Routledge.

Huang, R. & J. Bao. 2006. Towards a Model for Teacher Professional Development in China: Introducing Keli. *Journal of Mathematics Teacher Education*, *9*, 279–298. https://doi.org/ 10.1007/s10857-006-9002-z.

Ibrahim, A. S., A. Al-Kaabi & W. El Zaatari. 2013. Teacher Resistance to Educational Change in the United Arab Emirates. *International Journal of Research Studies in Education*, *2*(3): 25–36. https://doi.org/10.5861/ijrse.2013.254.

Ijaiya, N.Y.S., A.T. Alabi, & Y. A. Fasasi. 2011. Teacher Education in Africa and Critical Thinking Skills: Needs and Strategies. *Research Journal of Business Management*, *5:* 26–34. https://doi.org/10.3923/rjbm.2011.26.34.

Kavenuke, P. S. 2018. *Developing Critical Thinking Skills in Students: Perceptions and Practices of Lecturers from a Tanzanian University*. Doctoral thesis, Beijing Normal University.

Kavenuke, P. S. & E. Uwamahoro. 2017. Foreign Languages as Languages of Instruction, Liberating or Silencing: A Critical Analysis of Tanzania and Rwanda. *Interntaional Journal of Education and Research*, 5(12): 249–260.

Kettler, T. 2014. Critical Thinking Skills among Elementary School Students: Comparing Identified Gifted and General Education Student Performance. *Gifted Child Quarterly*, *58*(2): 127–136. https://doi.org/10.1177/0016986214522508.

Kincheloe, J. & P. McLaren. 2005. Rethinking Critical Theory and Qualitative Research. In N. K. Denzin & Y. S. Lincoln (eds.), *The sage Handbook of Qualitative Education* (pp. 303–342). London: SAGE Publication.

Ku, K. Y. L. & I. T. Ho. 2010. Dispositional Factors Predicting Chinese Students' Critical Thinking Performance. *Personality and Individual Differences*, 48(1): 54–58. https://doi.org/10.1016/j.paid.2009.08.015.

Larsson, K. 2017. Understanding and Teaching Critical Thinking—A New Approach. *International Journal of Educational Research*, *84*, 32–42. https://doi.org/10.1016/j.ijer.2017.05.004

Lau, D. C. 1979. *Confucius: The Analects*. London: Penguin Books Ltd.

Lloyd, M. & N. Bahr. 2010. Thinking Critically about Critical Thinking in Higher Education. *International Journal for the Scholarship of Teaching and Learning*, 4(2): 1–16.

Mandernach, B. J., K. D. Forrest, J. L. Babutzke & L. R. Manker. 2009. The Role of Instructor Interactivity in Promoting Critical Thinking in Online and Face-to-Face Classrooms. *MERLOT Journal of Online Learning and Teaching*, 5(1): 49–62.

Marshall, J. C., B. Horton & C. White. 2009. Equipping Teachers: A Protocol to Guide and Improve Inquiry-Based Instruction. *The Science Teacher*, 76(4): 46–53.

Moosa, D. 2013. Challenges to Anonymity and Representation in Educational Qualitative Research in a Small Community: A Reflection on my Research Journey. *Compare: A Journal of Comparative and International Education*, 43(4): 483–495.

Msila, V. 2014. Critical Thinking in Open and Distance Learning Programmes: Lessons from the University of South Africa's NPDE Programme. *J Soc Sci*, 38(1): 33–42.

Mwalongo, A. 2014. *Student Teacher and Lecturer Perceptions of the Use of Asynchronous Discussion Forums, Quizzes and Uploaded Resources for Promoting Critical Thinking*. The University of Waikato.

Nold, H. 2017. Using Critical Thinking Teaching Methods to Increase Student Success: An Action Research Project. *International Journal of Teaching and Learning in Higher Education*, 29(1): 17–32.

Nuangchalerm, P. 2014. Inquiry-Based Learning in China: Lesson Learned for School Science Practices. *Asian Social Science*, *10*(13): 64–71. https://doi.org/10.5539/ass.v10n13p64.

Osterholm, K., W. R. Nash & W. A. Kritsonis. 2007. Effects of Labeling Students "Learning Disabled": Emergent Themes in the Research Literature 1970 through 2000. *Focus on Colleges, Universities and Schools,* 1(1): 1–11.

Pacho, T. 2013. *Critical and Creative Education for the New Africa.* Retrieved from http://www.researchgate.net/publication/280133902.

Paul, R. & L. Elder. 2006. *The Miniature Guide to Critical Thinking: Concepts & Tools* (4th ed.). Foundation for critical thinking.

Paulo, A. 2014. Pre-service Teacher's Preparedness to Implement Competence-Based Curriculum in Secondary Schools in Tanzania. *International Journal of Education and Research*, 2(7): 219–230.

Qorro, M. 2006. *Does Language of Instruction Affect Quality Of Education?* Working paper 8, Hakielimu.

Ren, Y. H. & L. Tao. 2014. The Critical Thinking and Chinese Creative Education. *Canadian Social Science*, 10(6): 206–211.

Shamim, F. & R. Qureshi. 2013. Informed Consent in Educational Research in The South: Tensions and Accommodations. *Compare: A Journal of Comparative and International Education*, 43(4): 464–482. https://doi.org/10.1080/ 03057925. 2013.797729

Shin, H., C. G. Park & H. Kim. 2015. Validation of Yoon's Critical Thinking Disposition Instrument. *Asian Nursing Research*, 9: 342–348.

Snyder, R. 2017. Resistance to Change among Veteran Tachers: Providing Voice for More Effective Engagement. *International Journal of Educational Leadership Preparation*, 12(1): 1–15.

Stupple, E. J. N., F. A. Maratos, J. Elander, T. E. Hunt, K. Y. F. Cheung & A. V. Aubeeluck. 2017. Development of the Critical Thinking Toolkit (CriTT): A Measure of Student Attitudes and Beliefs about Critical Thinking. *Thinking Skills and Creativity*, *23*, 91–100. https://doi.org/10.1016/j.tsc.2016.11.007.

Sumra, S. & R. Rajani. 2006. *Secondary Education in Tanzania: Key Policy Challenge*. Oslo.

Swartz, R. & C. Mcguinness. 2014. *Developing and Assessing Thinking Skills: The international Baccalaureate Project 2014*. Boston.

Terhart, E. 2013. Teacher Resistance Against School Reform: Reflecting an Inconvenient Truth. *School Leadership & Management*, 33(5): 486–500. https://doi.org/10.1080/13632434.2013. 793494.

Theurer, C., N. E. Berner & F. Lipowsky. 2016. Assessing Creative Potential as Student Outcome: On the Applicability of the TCT-DP in Repeated Measures. *Thinking Skills and Creativity*, *20*, 74–82. https://doi.org/10.1016/j.tsc.2016.03.002.

Tiruneh, D. T., A. Verburgh & J. Elen. 2014. Effectiveness of Critical Thinking Instruction in Higher Education: A Systematic Review of Intervention Studies. *Higher Education Studies*, *4*(1). https://doi.org/10.5539/hes.v4n1p1.

Trede, F. & C. McEwen. 2015. Critical Thinking for Future Practice: Learning to Question. In M. Davies & R. Barnett (eds.), *The Palgrave Handbook of Critical Thinking in Higher Education* (pp. 457–474). England: Palgrave Macmillan.

United Nations Educational, Scientific and Cultural Organization (UNESCO). 2008. *Mother Tongue Matters: Local Language as a Key to Effective Learning*. Paris: UNESCO.

Vavrus, F. & L. Bartlett. 2013. *Teaching in Tension: International Pedagogies, National Policies, and Teachers' Practices in Tanzania*. Boston: Sense Publishers.

Wang, L. 2009. *Basic Education in China.* Hangzhou: Zhejiang University Press.

Wang, H. 2010. The influence of the Socratic Tradition on Cambridge Practice and its Implication on Chinese Higher Education. *Journal of Cambridge Studies*, 1–18.

Wangensteen, S., I. S. Johansson, M. E. Björkström & G. Nordström. 2010. Critical Thinking Dispositions among Newly Graduated Nurses. *Journal of Advanced Nursing*, *66*(10): 2170–2181. https://doi.org/10.1111/j.1365-2648.2010.05282.x.

Wellington, J. 2015. *Educational Research: Contemporary Issues and Practical Approaches (2nd ed.)*. London and New York: Bloomsbury Academic.

Willingham, D. T. 2007. Critical Thinking: why is it so Hard to Teach? *American Educator*, *31*, 8–19.

Xu, X. & W. Mei. 2009. *Educational Policies and Legislation in China*. Hangzhou: Zhejiang University Press.

Yan, C. 2015. "We Can't Change Much Unless the Exams Change": Teachers' Dilemmas in the Curriculum Reform in China. *Improving Schools*, *18*(1): 5–19. https://doi.org/10.1177/ 136548021 4553744.

Yin, R. K. 2003. *Case Study Research: Design and Methods (3rd Ed.)*. Thousand Oaks: CA: Sage.

Zakelj, A. 2013. The Impact of Level Education (Ability Grouping) on Pupils' Learning Results. *Procedia - Social and Behavioral Sciences*, *84*, 383–389.