

LOCALIZING THE FINNISH MODEL FOR  
CHINA: DEVELOPING AN ENGAGING  
STUDENT-CENTRED PEDAGOGY  
TRAINING PROJECT FOR CHINESE  
TEACHERS IN BASIC EDUCATION

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**Localizing the Finnish Model for China: Developing an  
Engaging Student-Centred Pedagogy Training Project for  
Chinese Teachers in Basic Education**

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## ABSTRACT

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In Finland, future teachers studying in universities are educated with student-centred approaches in order to be more capable of implementing student-centred approaches in their own classrooms. With strong support from scientific research, Finnish universities are taking a leading role in implementing student-centred approaches. Specifically, the curriculum for teacher education is no longer limited to the teacher-directed approaches, but adopts many collaborative approaches including group work, collaborative learning, collaborative writing, presentation, seminar, webinar, student self-evaluation and peer-evaluation and learning diaries etc.

This study draws on scientific research on the use of student-centred pedagogy in Finland and China. It focuses on the specific characteristics of Finnish teacher education and the student-centred focus of the teacher education curriculum. It outlines the essential components of Finnish teacher education through reviewing existing researches, which is the basis of developing a student-centred teacher training module for Chinese teachers. On the basis of the critical review of Finnish teacher education and the current educational culture in China, a training module with five themes is developed in this study.

The design-based research methodology is used in the study which aims to bridge theoretical researches on student-centred approach and meaningful practices in local settings. According to existing researches, design-based research methodology is a tool for creating systemic design for understanding how theoretical knowledge could be transformed in a contextually-suitable way in a new educational environment. In order to localize a suitable student-centered pedagogy training program for effective changes in Chinese schools, Chinese teachers' needs and the context of Chinese education system are taken account within the researcher's agenda in this study. In general, the design

process follows a six-step curriculum development process which includes needs analysis, situation analysis, planning goals, course planning and syllabus design, providing for effective teaching and materials, and approaches to evaluation. An important principle in the design is to gradually support Chinese teachers to move from knowing *what* to knowing *how*.

Keywords: Finnish teacher education, student-centred pedagogy, Chinese teacher training, design-based, localization

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# 1 INTRODUCTION

## 1.1 Context of the study

The past four decades have seen drastic growth in China's economy. Along with the economic development, the expectation and investment in education from the Chinese government is also growing (OECD, 2016a). In recent years, the Chinese government has been trying to reform its education system by reorganizing its school governance and management systems and also by changing its teaching methodologies (OECD, 2016b). Meanwhile, the Chinese Ministry of Education continues to be interested in a constructivist approach. Both 2001 and 2011 Chinese national curriculum standards for basic education published by the MoE have integrated the idea of students' motivation, autonomy, collaboration and exploration (MoE, 2001; MoE 2011; Li & Clarke, 2014). The idea of a constructivist approach was further reinforced in the latest 'National Outline for Medium and Long-term Education Reform and Development Plan' (2010-2020) (MoE, 2010). However, there is still a long way to go due to Chinese traditional Confucian education (Li & Wegerif, 2014) and current classroom quality, although some efforts have been made. Empirical studies have found that most teachers from China are still using traditional methods of teaching in the classroom (Chen, 2015; Tao, Oliver, & Venville, 2013). In order to transform the dominant teacher-centred teaching to student-centred teaching, high quality teacher education and training must be introduced and developed. However, since China holds very strong traditional teaching philosophy (Halpin, 2014), it is extremely hard to have such high-quality teacher education and training endogenously. Therefore, one way to change Chinese teachers' pedagogical orientation is to learn the experiences from other advanced countries and to localize this knowledge in Chinese context.

On the other side of the Eurasia, Finland has been recognized as a high achieving country in education which enjoys high quality teacher education and endorses student-centred pedagogy (Sahlberg, 2011; Välijärvi et al., 2007).



Finnish high-quality teacher education has received more and more international attention, due to several international assessment projects such as the Programme for International Student Assessment (PISA) and Teaching and Learning International Survey (TALIS) both run by the Organisation for Economic Cooperation and Development (OECD) in the past twenty years (Sahlberg, 2011; Tirri, 2014).

However, Finnish success was not made overnight. It has taken at least three national wide education reforms aiming for learner-centered education since 1990s, which refers to 1994, 2004 and 2014 national curriculum reforms respectively (Tirri, 2014). Looking back to the 1970s and 1980s, it was seen that teacher-directed teaching approaches were widely used in Finnish schools and universities because at that time Finnish educational management was centralized. Only in the 1990s when the trend of decentralization was emphasized all over Finland (Simola et al., 2009; Tirri, 2014) did the transformation from teacher-directed to student-centred pedagogy in classrooms become possible. So, it is important to take cultural, historical and sociological background into account when learning the pedagogical approaches from Finland (Simola, 2005; Niemi 2012; Reinikainen 2012) and applying it in China.

It was also not easy for Finland to put student-centred approaches into practice at the beginning. In the 1990s, there was sharp criticism of Finnish teachers who were not adopting new pedagogical approaches and the teacher-student relationship was alienated in schools (Simola, 2005). Furthermore, Simola's (2005) study showed Finnish teachers paid little efforts on differentiated instructions and personalized supports, and what most teachers preferred was still teacher-directed teaching approaches in 1990s. This is quite similar to current Chinese education in which the role of teachers are authoritative organizers, and students are knowledge acquirers and receivers.

Actually, the development of learner-centred approaches and increasing the pedagogical autonomy of teachers has taken a long time and lot of investment in Finland (Simola, 2005). It will be good lessons for others countries to learn how Finnish education developed. Therefore, Finnish educational reform

process and the challenges they have overcome toward student-centred approach will be emphasized for Chinese educators in this study.

Moreover, Finland is willing to share its educational experience with other countries (Finnish National Board for Education, 2017; Reinikka, Niemi & Tulivuori, 2018) such as China, and there has been increasingly educational communications between the two countries in recent years. Therefore, it is feasible to establish a student-centred pedagogical training project based on Finnish experiences and to adapt that training project in China in order to help Chinese teachers transform their pedagogical orientation.

## **1.2 Research purpose and research questions**

The present thesis aims to build a student-centred pedagogical training project for Chinese teachers in basic education based on the Finnish teacher education model. In order to reach this goal, I will study the student-centred approach as modelled in a Finnish university to examine how a Department of Teacher Education educates their student teachers with regard to student-centred pedagogy. Based on this, a competency framework for Chinese teachers will be designed which combines both Finnish experience and Chinese needs. Lastly, I will design the contents of the student-centred pedagogical training project which will be implemented in China. Therefore, the specific research questions are:

1. What are the features of Finnish student-centred teaching practices and how does Finnish university train their student teachers to endorse that pedagogy?
2. What competences related to student-centred approach do Chinese teachers need to acquire?
3. How to help them acquire the competences related to student-centred approach? What contents should be designed in the training modules for Chinese teachers in order to help them master the student-centred pedagogy?

## **2 THEORETICAL BACKGROUND FOR STUDENT-CENTERED PEDAGOGY**

In this chapter, the definition of student-centred pedagogy and its relation with traditional teacher-directed teaching methods will be introduced. Then, it presents three broad theories related to learning and teaching: Behaviourism, Information-processing learning theory and Constructivism. Meanwhile, what teacher-directed classroom and student-centred classroom looks like will be illustrated.

### **2.1 Definition of student-centred pedagogy**

Student-centred pedagogy, or many other names has been used such as child-centred teaching and progressive pedagogy, has its strong roots in constructivism ([Driscoll, 2005](#)). For constructivists, a learner is an active knowledge constructor who builds their understanding of the world through the interaction between learner and environment, either with the physical environment or with teachers and peers. It is the interactions between the learner and environment that co-produce the knowledge and make the learning happen. Therefore, in terms of instruction, teachers should consider learners' own needs and interests, to serve as a supporter, facilitator, or partner. Since understanding grows from authentic experience, real-life activities should be used as a way to help students learn.

### **2.2 Theoretical background for student-centred and teacher-directed pedagogy**

Various learning theories have been proposed and built serving as repertoires to explain how learning occurs and to imply how to teach ([for overview, see Driscoll, 2005; Ormrod, 2012](#)). Three overarching theories are behaviourism, information-processing learning theory and constructivism are introduced in

Table 1 along with summarised explanations of learning and teaching (for details, see Table 1).

**TABLE 1** Descriptions of Behaviourism, Information-processing learning theory and Constructivism

	Behaviourism/Information-processing learning theory	Constructivism
Epistemic belief	Objectivism & Empiricism	Rationalism & Interpretivism
How does learning happen?		
Learning happens in	Environmental stimulus or inputs	Interaction between learner and environment
Process of learning	Stimulus-Responses relationship/Information processing	Knowledge constructing
Learning outcomes	Declaring knowledge	Understanding knowledge
Role of learner	Knowledge acquirer, receiver	Meaning maker; Knowledge constructor
How to teach?		
Role of teacher	Designer; Organizer	Facilitator; Collaborator
Typical classroom practices	Drill and practices, didactic instruction, rewards and punishment	Cooperative learning, instructional conversation, authentic tasks
Teaching method	Teacher-directed	Student-centred

Behaviourism and information-processing learning theory are treated together as a common theory to explain the rationales of teaching. The reason behind it is that both the cognitive learning theories and behaviourist learning theories hold the same epistemological views that knowledge originates from experiences and is reachable (Driscoll, 2005). Therefore, both those theories emphasize the predominant role of environment and mental process in producing learning (Ertmer & Newby, 1993).

However, since the present study focuses on the teaching, it is no matter what environmental stimulus or mental process producing learning outcomes is, what is important is who makes the learning happen in the classroom. Those two theories both stress the passive role of learners in the face of teachers, therefore, they are put together in explaining the way of teaching. For example, a boy learned not to touch a bee's nest after once he did and was attacked by bees. His behavioural change (i.e., he learned), from touch to do not touch, is because he received a response (i.e., an attack from bees) after he approached a stimulus (i.e., a bee nest). Therefore, it is the environmental conditions that lead learning to happen. For behaviourism, the learner becomes to learn because of environmental stimulus-response, and the teacher is the main actor to help students learn in the classroom. Teachers should actively arrange an optimal environment to make learning occur in the way of using reinforcement or feedback.

Constructivism holds a different epistemological view from the former two theories. For behavioural and cognitive theories, knowledge objectively exists in the world and is external to the learner, thus, what instructors need to do is to input the knowledge into learner's mind. However, in the constructivist eye, knowledge derives from reason and interpretation. Learners create the meaning of the external world instead of acquiring the external knowledge. In one famous illustration - Fish is Fish, a fish hears about birds from a frog. No matter how hard the fish tries to assimilate the frog's information, in the fish's mind, the bird is in the fish's shape with two wings (see Bransford, Brown, & Rodney, 2000, p.11). Therefore, learners build their own personal understanding of the external world based on what their individual experiences are and how they interact with others.

Constructivism is associated with a number of different perspectives (Prawat & Floden, 1994), such as radical constructivism by E. von Glasersfeld, cognitive constructivism by J. Piaget and social constructivism by L. S. Vygotsky. However, some common assumptions can be identified across them. All constructivists may agree that the learner is an active knowledge constructor who

builds their understanding of the world through the interaction between learner and environment, either with the physical environment or with teachers and peers. It is the interactions between the learner and environment that co-produce knowledge and make the learning happen in return. Therefore, in terms of instruction, teachers should consider learners' own needs and interests, to serve as a supporter, facilitator, or partner for learners' learning. Since understanding grows from authentic experience, real-life activities should be used as a way to help students learn.

Based on the above learning theories, two different approaches of teaching have been proposed. Based on behaviourism and information-processing learning theory, direct instruction and teacher-directed teaching methods are represented. Under constructivism, student engaging-learning, problem-based learning, flipped learning and phenomenon-based learning are proposed, which are all strongly related to student-centred pedagogy.

### **3 STUDENT-CENTRED PEDAGOGY IN TEACHER EDUCATION**

In this chapter, the different characteristics of Finnish teacher education and Chinese teacher education are presented to provide background information on how student-centred approach differ between Finland and China, followed by addressing the possibility to implement student-centred pedagogy teacher training through in-service training and teachers' professional development in China.

#### **3.1 Student-centred pedagogy in Finnish teacher education**

Nowadays, Finnish schools and teachers have used student-centred pedagogical practices for decades ([Sahlberg, 2011](#)). Empirical studies from Finland have found their teachers mostly use student-centred teaching in their daily classroom activities ([Rasku-Puttonen et al., 2011](#); [Tang et al., 2017](#)). In these classrooms, teachers facilitate students' learning by providing them both with guidance and opportunities to direct them to explore objects or academic topics by themselves, and teaching is akin to a partnership between teacher and children. They value students' own experiences, needs and interests when they organize classroom activities, and they try to individualize their teaching instruction and scaffolding students' learning with aim for understanding. Teachers also create a trustable and comfortable class community to support students' learning with their peers. It has been found that these student-centred teaching practices were beneficial to students' learning ([Lerikkanen et al., 2016](#); [Tang et al., 2017](#)).

Quite naturally, a student-centred approach was not realised in practice overnight. Back in the 1990s, in order to empower every child development, one of the most important focuses of education reform in Finland was to promote teacher autonomy and student-centred approach in all education levels. However, it was recognised that Finland faced significant challenges in

developing student-centred approach at that time (Simola, 2005; Sääntti & Salminen, 2015).

First of all, it challenged Finnish teachers' traditional teaching methods when the whole country was transforming from centralized management ideology to decentralized management ideology. In the 1970s and early 1980s, the most significant feature of Finnish education was the serious management of central control (Sääntti & Salminen, 2015). During this period, Finnish education was result-oriented and examination-oriented, which was deeply rooted in the planned economy and centralized management ideology at that time (Sääntti & Salminen, 2015). Not only Finnish students were assessed and distinguished by test scores, but Finnish teachers were also judged according to their performance. Finnish university teacher Janne Sääntti has said that under the pressure of the exam, elementary school teachers at that time had to set teaching goals according to the teaching plan, and the teaching goals were transformed into specific methods and observable actions.

This is far from the autonomy in the hands of Finnish teachers we see today. The key reform taken by Finnish Minister of Education and Finnish Agency of Education was to set deregulation and decentralized national curriculum and adopted the idea of municipal curriculum and school curriculum instead (Tirri, 2014). The autonomy, decentralization and distributed leadership that we see in the Finnish education system today were emerging during that period. This decentralization movement has enabled more and more local education bureaus and schools to start launching local educational development projects (Tirri, 2014). At that time, the flexibility and diversification of the education system were rapidly increasing. In addition, it also brought about changes in the role of Finnish teachers – they were not servers a market-competitive economic model, but considered themselves as professionals and pedagogical leaders in the field of education. Under these guidelines, the Finnish school culture in the 1990s has undergone a fundamental change towards giving teacher autonomy and putting learners in the center of learning.



Secondly, with the increase of students' diversity in the Finnish classroom, the need to meet each students' development became demanding in 1990s. This is mainly due to the fact that in 1995 school-students with severe disabilities were allowed to enter or transfer into Finnish mainstream schools and normal classes (Statistics Finland, 2011). This strengthened the classroom practices need to emphasis more on differentiated teaching and individualized supports, further, it pushed Finnish teachers to apply the student-centred approach to meet different students' needs.

Even though Finnish education has established the foundation values which was equal and equality to all through the comprehensive school reform in the 1970s (Välijärvi et al., 2007; Sahlberg, 2011), the real situation was that before 1985, there was a diversion in Finnish mainstream school. At that time, the mathematics and foreign language classes in grades 7-8 were divided into three levels (Halinen & Järvinen, 2008). High performance students went to better classes, low performance students went to lower classes. Not to mention, children with special education needs were isolated from mainstream schools before 1995 (Statistics Finland, 2011). Things changed after 1995, regular teachers were faced with all kinds of students including special needs students, which requires Finnish teachers to carry out differentiated teaching and personalized supports based on student-centred approach.

Thirdly, teachers also needed to scaffold and to develop skills to employ a student-centred approach. What measures were taken to help Finnish teachers equip themselves with student-centred skills in 1990s? At that time, the path was divided into "three steps" from top to bottom: the first step was led by academics in research, then universities used student-centred approaches to undergraduate students and postgraduate students, the third step was to implement it in Finnish comprehensive schools.

With continuous efforts on improvement of its education system, nowadays both school practice and teacher education in Finland are highly recognized by international educators. Some Finnish researchers point out that the three most specific characteristics of current Finnish pre-service teacher education are: 1)

pedagogical studies; 2) peer-group monitor for student teacher's development (teaching practice); 3) and research-based teacher education (Krokfors et al., 2011). These principles can also be found in the Finnish teacher education programme curriculum of Finnish universities, in which designed to ensure future teachers to be research-based mindset, reflective and know-how on pedagogy.

It's needed to illustrate the background of Finnish teacher education and its teacher training schools. In Finland, there are eight academic universities offering teacher education programs for future teachers, all of whom have their own teacher training schools. To specify it, teacher education programme curriculum (both class teachers for primary schools and subject teachers for lower secondary schools) from University of Jyväskylä (2014) are taken as examples. Like other academic universities, teacher education at the University of Jyväskylä requires a student to complete 300-credits in five years to get a master degree (except for early childhood education teachers, they only need to complete a three-year 180-credit courses for bachelor degree). In the term of teachers in basic education, they need finish 300 credits studies which are divided into different modules including majors, minors, pedagogy, and communication and language learning. (for details, see Tables 2 and Table 3).

TABLE 2 Structure and contents of the class teacher education degree (300 credits)

Learning modules	Content		Credits
Education studies	Pedagogy Studies	Theoretical learning (33 credits) in university Teaching practice (27 credits) in teacher training school	60
	Thesis	Bachelor degree thesis (10 credits) +master degree thesis (30 credits) +research methods (20 credits)	60
	Education studies	Basic studies and advanced studies in education science	30

Minor subject studies (pick one of two options)	Studying in one subject (e.g. special needs education)	1*60
	Studying in two subjects (e.g. handcraft education and guidance counselling)	25+35
Multidisciplinary studies	For Finnish class teachers who teach in primary school need to do multidisciplinary studies in subjects and cross-curricular thematic modules taught in basic education (POM studies)	60
Language and communication studies	Language and communication studies	25
Elective studies	Based on students' interests	5-15

\*One credit is equivalent to 27 hours of work.

\*If the minor subject studies of class teachers for primary school is focused on one subject, such as special needs education (SNE), when he / she completes 60 credits, he / she will be a qualified SNE teacher when he graduates. It means he/she can be a subject teacher teaching in lower secondary school or high school.

TABLE 3 Structure and contents of the subject teacher education degree (300 credits)

Learning modules	Content		Credits
Major subject studies (e.g. mathematic)	Subject studies	e.g. mathematics	90
	Thesis	Bachelor degree thesis (10 credits) +master degree thesis (30 credits) +research methods (20 credits)	60
Minor subject studies	Second subject (e.g. physics)		1*60
Pedagogy studies	Theoretical learning (33 credits) in university Teaching practice (27 credits) in teacher training school		60
Language and communication studies	Language and communication studies		25
Elective studies	Based on students' interests		5-15

\*One credit is equivalent to 27 hours of work.

\*Student teachers of subject teachers' study in different faculties, but they need to come to the teacher education department for pedagogical studies when they want to be a teacher in future.

The specific characteristics of Finnish teacher education are showed according to the structure and contents of teacher education programmes above.

Firstly, it shows that pedagogical study takes one fifth in Finnish student teachers' education program, which strongly emphasizes on student teachers' rational pedagogical thinking during teacher education (Krokfors et al., 2011). The idea of pedagogical study aims at improving future teachers' skills on how to teach. A study conducted by Tang et al (2017), analysed three domains of teaching practices (student-centred, teacher-directed and student-dominated) of 91 first-grade teachers and 70 third-grade teachers from Finland and Estonia. Results showed 47% of Finnish first-grade teachers mainly use student-centred teaching methods; 9% of Finnish teachers use teacher-directed teaching methods; however, 0%, no teacher uses the student-dominated teaching method (Tang et al., 2017). Where did the rest of the teachers go? Tang et al (2017) found that the remaining 44% of Finnish teachers used both student-centred and teacher-directed teaching methods, which being called mixed teaching methods. It provides some inspiration that Finnish teachers not only know the importance of both student-centred and teacher-directed teaching methods are vital in basic education, they also know when to use student-centred methods and when to use teacher-directed teaching methods.

In addition, peer-group monitor (PGM) is used in Finnish teacher education. PGM for teacher's development means a new model design based on the foundation of constructivism view of learning which emphasizes three domains of expert knowledge in professional development, regarding the professional, personal and social dimensions of professional development (Geeraerts et al., 2015). It is a shared expertise and the model of integrative pedagogies which emphasizes integration of different forms of expert knowledge in professional development (Heikkinen et al., 2012). In practice, it integrates expertise from both university level and school level in supporting student teachers' development in teaching. According to curriculum plans for students pursuing the Primary School Teacher Education Programme (2014-2017) of the Department of Teacher Education, University of Jyväskylä, Finland, Finnish

student teachers for basic education need do four times teaching practices within five years master degree studying, under the guidance of both teachers from University and experienced teachers from local schools. The Finnish model of PGM can be realized mainly thanks to eight universities which provide teacher education all have their own teacher training schools, no matter where the universities are located.

Lastly, research-based teacher education is strongly emphasized in Finnish teacher education. According to Munthe and Rogne (2015), research-based teacher education in Finnish academic university context refers to many academic works which include academic reading and writing, discussing research literature in groups, studying research methods, doing research communication practice (e.g. seminar, conference) and using research methods in the Master thesis. It shows that Finnish teacher education pays much attention on both academic knowledge learning and doing research (Toom et al., 2010; Niemi & Nevgi, 2014; Munthe & Rogne, 2015).

### **3.2 Student-centred pedagogy in Chinese teacher education**

In China, on the one hand, student-centred pedagogical practices have rarely been used in elementary schools and lower secondary schools when looking at the whole country (Chen, 2015; Tao et al., 2013). Although there has been a promotion from education administrators and small-scale experiences from Chinese educators towards student-centred pedagogy, e.g. group work practices in high education institutes (Li et al, 2014), the actual use of this pedagogical practices is little partly due to strongly traditional teaching philosophy (Halpin, 2014) and Confucian education (Li & Wegerif, 2014). On the other hand, the success of China in PISA (OECD, 2010, 2013, 2018) hinder some educators' willingness to change current high-intensive study time and workload (Zhao, 2013) and learn good practices from top performance countries.

In addition, it is urgent to develop a student-centred teacher training project for Chinese teachers because of Chinese teachers did not receive enough

pedagogy studying in their pre-service teacher education. According to Zhou et al (2011) study, teacher education programs in China are subject-centred after analysing 192 undergraduate teacher education programs in 30 universities. These programmes showed that subject learning greatly matters in teacher education programme curriculum which was as high as half (47.1–52.0%) in Chinese universities, followed by professional education courses occupied 8.6–10.5% and general courses took up 25.6–29.5% of the undergraduate studying. It was seen that low percentage of pedagogical studying was addressed in the study. Furthermore, the study pointed out only a few institutions offer instruction strategies and skill courses, such as textbook analysis, lesson design, teaching methods and classroom administration (for details, see Table 4).

TABLE 4 Structure and content for teacher education of Bachelor degree in 30 universities in China

Learning Module	Content	Percentage of the whole program
Subject study courses	Knowledge on subject	(47.1-52.0%)
General study courses for high education students	It includes political affairs study, English study, sports and computer science.	(25.6-29.5%)
Professional education courses	It includes four main courses: general pedagogy, psychology, teaching and educational technology.	(8.6-10.5%)
Teaching strategies and skills courses	Such as textbook analysis, curriculum study, teacher-student communication skills, classroom management and research methods.	Only some universities offer this learning module. In addition, of the 192 samples, only 4 institutions provided content related to basic education curriculum reform.

\*Bachelor degree is four years of studying all over China.

\*The way to calculate credits in Chinese universities are different from western countries including Finland.

For the above reasons, the quality of student-centred pedagogy studying during pre-service teacher education in China was recognized as weak with regard to: 1)

shortages of adequate teaching materials; 2) emphasis on teacher-directed teaching methods; 3) insufficient support for student teacher's pedagogical skills development in teacher education. Even some researchers (Wang, Zhang & Chen, 2018) claimed that the concept of student-centred learning has a strong root in Western cultures, and it does not necessarily fit in Chinese culture. However, many Chinese schools have actively tried to explore in the practices to experiment such student-centred teaching, such as designing project-based learning, problem-based learning, situational teaching approach, cooperative learning and personalized teaching etc (Gui & Cheng, 2018; Zhao, 2018).

Based on this background, Finland's good experiences on learner-centred pedagogy happens to meet Chinese educators' current needs.

### **3.3 Student-centred pedagogy in Chinese teachers' in-service training and professional development**

Finnish teacher educator Niemi (2015) pointed out there were three phase models of teachers' professional development according to the European Commission: 1) initial teacher education or called pre-service teacher education; 2) induction or called novice teacher education (for new teachers, 3-5 years after graduation); 3) and in-service teacher education. It recommended that all membership countries take a holistic approach to help teachers' lifelong professional development:

This inexact procedure does not meet the requirements of accurate and reliable referencing. This professional development of teachers is a lifelong process that starts at initial teacher education and ends at retirement. Generally, this lifelong process is divided in specific stages. The first stage concerns the preparation of teachers during initial teacher education, where those who want to become a teacher master the basic knowledge and skills. The second stage is the first independent steps as teachers, the first years of confrontation with the reality to be a teacher in school. This phase is generally called the induction phase. The third phase is the phase of the continuing professional development of those teachers that have overcome the initial challenges of becoming a teacher.

(European Commission, 2010, p. 3).

Though China is not a membership country in Euro, it shares the idea of educating teachers through a holistic lifelong way. When it comes to see teachers' in-service training in China, it also directs the necessity of designing a student-

centred training project for Chinese teachers. In China, a national in-service training program for primary and junior secondary school teachers has been implemented by the Ministry of Education and the Ministry of Finance of China since 2010, which is referred as the "National Training Program" (国培项目) with the aim of supporting all Chinese teachers' professional development throughout their career, no matter they are novice teachers or in-service teachers. It is an important measure to improve the overall quality of primary and junior secondary school teachers, especially teachers in Chinese rural areas (MoE, 2010), in which teachers' pedagogical competence was valued in the guidance for in-service teacher training.

### **3.4 The bridge between Finnish education and Chinese education**

Of course, there are challenges when applying a pedagogical approach from Finland in Chinese schools. When comparing Chinese education with education in Finland, there are significant differences in terms of cultural and sociological background, education evaluation system as well as classroom size (Tan, 2017).

First of all, the education philosophy is deeply rooted in its cultural and sociological background. China is a developing country with large population and owns world's largest education system. Current centralized management is the most efficient way for its economic and society development, after all, a democratic and decentralized country like Finland costs more time in decision-making, and strongly relies on high quality human resources. OECD data (2018) showed 45.2% Finnish adults between 25 to 64 years old have received tertiary education while the number is quite small in China. It is worth mentioning that during 1950s to 1980s, governed by president Urho Kaleva Kekkonen, Finland also was in a very centralized management model, which benefited its education reform and welfare system a lot since great wealth was in the hands of central government (Säntti & Salminen, 2015).

Secondly, education evaluation system differs between Finland and China. In Finland, education is part of its welfare system and it is free of charge to all



Finnish citizens. It serves to every individual according to Finnish education Act (Halinen & Järvinen, 2008). What is more, Finnish education evaluation system is aiming for diagnosing learning and quality assurance rather than distinguishing and labelling students (Finnish Education Evaluation Centre, 2019). Yet, Chinese education system is inequality and selective although some efforts have been made towards popularization of high education over the last two decades (Luo et al., 2018). Some researchers argue that once constructivism approach is implemented in Chinese schools, it will bring challenges to master the content which has been fixed in Chinese textbooks and deviation from examination-oriented assessment system (Tan, 2017).

The third challenge is the gap of classroom size between Finland and China. In Finland, typically the number of students in a class in comprehensive schools is between 20-25, while the number of classroom size at national level in China is 40- 50 students. Even though Shanghai is better than most other cities in China, it is still much lower than Finnish when it comes to classroom quality (OECD, 2014, for details see Table 5).

Table 5: Comparison of classroom size in Shanghai and Finland's Comprehensive School

Classroom size	Shanghai	Finland
For elementary school	In national level, mean of class size is 38.49 (OECD, 2014). Estimated average class size in Shanghai is 37.09;	Mean is 19.41 in elementary school (OECD, 2014);
For lower secondary school	At national level, mean of class size is 51.83 (OECD, 2014). Estimated average class size in Shanghai is 35.02	Mean is 20.25 in low secondary school (OECD, 2014)

\*Table data excerpt from Tang (2015)

Nowadays, Finnish teachers have high pedagogy autonomy to teach and they mainly use child-centred approach, whereas most Chinese teachers still follow a teacher-dominated approach and are restricted by national textbooks (Tan, 2012). It is partly because Finnish classroom contains half number of students compared

to Chinese classroom, in which Finnish teacher more likely take every students' need into account.

In spite of these differences between the two countries, some similarities are seen as a bridge when learning pedagogical approach from Finland and localizing it in China. Finland implements educational reform every ten years through its national curriculum (Pietarinen et al., 2017) and encourages municipalities develop local level curriculum. China also sees curriculum reforms (课改) as a tool to develop its education system, which also happens approximately each ten years (MoE, 2001; MoE, 2010; Government of P.R.C., 2019).

Especially, the 2001 Chinese national curriculum, it was the first time that the idea of three level curriculum which refers to national level, municipal level and school level has been officially introduced in Chinese educational system (MoE, 2001). Meanwhile, it aimed to transform the role of students from the status of mechanical training, passive learning, rote and memorization to actively participating (主动参与), willingness to explore (乐于探究) and learning by doing (勤于动手) (MoE, 2001). In addition, that curriculum also pointed out the objectives of basic education were to foster students' four core competences: 1) critical thinking on information, 2) continually learn new knowledge, 3) the ability of analyzing and solving problem, 4) communication and collaboration competence. It was seen that the Chinese Ministry of Education has made efforts towards a constructivist approach, however, the process is particularly long and hard due to factors such as traditional Confucian education, the quality of national education, educational evaluation system and classroom size etc.

Secondly, both countries emphasize teachers' professionalism. Lavonen (2016) introduced, in Finland, teacher professionalism means a broad of knowledge and skills, e.g. collaboration and networking skills, lifelong learning capabilities and the ability to apply innovative theories and thoughts into practices. These competences could also be seen in some Chinese teachers. For example, in recent years, teachers from leading metropolis Shanghai have been highlighted by the world due to its good performance in TALIS (Lo, 2019) as well

as Shanghai students' top performance in PISA. While TALIS results shows that 98.5% Shanghai teachers from basic education schools have a bachelor degree or above, and it also reveals high self-efficacy among Shanghai teachers- who are rich in subject knowledge, confident in teaching competence and willing to receive professional development and collaboration with peers (Lo, 2019). In addition, teachers in both countries receive high respect from students and society (Sahlburg, 2011; Friedman, 2013; Lo, 2019).

Another similarity that Finland and China have in common is that both countries are willing to improve and learn from those who do better in education. Education reform is a sustainable process with the efforts of every generation. No matter how good the education is today, it has been travelling step-by-step across decades to today. The way Finland learn from Sweden, German and American in the past decades is similar to China learns from Finnish experience and others.

## 4 RESEARCH OBJECTIVES AND METHODOLOGY

### 4.1 Research objectives

The aim of present research is to develop a student-centred pedagogy training project for Chinese teachers in basic education which will find a way to localize the Finnish model in China.

Localization highlights the role of local context, resources and partnerships when putting external approaches in new settings (Cheng, 2006). When put it in the lens of education, as Guo (2008) claimed that localization of foreign education curriculum is quite a complex phenomenon. Curriculum itself is a dynamic process which needs education decision-makers, teachers, students and other stakeholders to work together for effectively putting it in practice. Moreover, localization will show different faces in different background and cultural traditions. Therefore, researches on localization of foreign curriculum in new educational settings is necessary.

According to Guo (2008), localizing foreign curriculum and education theories to China should not only transplant or copy its external formal, on the contrary, it should be understood and applied based on its essential elements in order to solve Chinese practical problems. Some scholars believe two core aspects in localizing foreign educational curriculum in China should be emphasized. The first is to have the consciousness of the local status quo when setting teaching objectives and main content with considering of current Chinese education situations and Chinese students' needs (Wan 2013). For example, Wan (2013) study on English Public Speaking Course in Chinese high education institutes has showed different features in term of teaching objective, learning content, teaching methods and approaches to evaluation from its original English-speaking countries. The second emphasis in localizing foreign educational curriculum in China is to strengthen our local knowledge, especially to teach our cultural traditions and knowledge (Rong & Liu, 2005; Guo, 2008).

Therefore, in this study, on the one hand, what competences related to student-centred approach that Chinese teachers need to acquire during the training needs to be addressed. On the other hand, what contents should be included in the training module in order to help Chinese teachers acquire the competences related to student-centred approach will be designed.

In this part, the way to localize competency framework is illustrated. Finnish teacher education programme curriculum follows a competency framework which includes these areas: 1) Ethical competence, 2) Intellectual competence, 3) Communicative and interactional competence, 4) Cultural, community and social competence, 5) Pedagogical competence and 6) Aesthetic competence (University of Jyväskylä, 2014). It is research-based and there is strong dialogue between academic theories and school realities (Heikkinen et al., 2018), thus, it is vital to apply research-based approach and teaching practice into the new training design in order to localize Finnish model in Chinese context.

In order to achieve above objective, the present research re-design a competency framework to support Chinese teachers' pedagogical development based on Finnish Teacher Education Programme Curriculum (University of Jyväskylä, 2014), as well as considering Chinese teachers' professional development needs for the 21st century. It includes the following areas of competences: 1) Research-based thinking competence, 2) Communicative competence, 3) Collaborative competence in professional learning community, 4) Constructive feedback competence and 5) Pedagogical competence.

**(R) Research-based thinking competence:** Teachers are willing and able to be academic articles consumers during their working life. Teachers are willing and able to actively present their thoughts when participating in a presentation, seminar or webinar with research-based approach (Toom et al., 2010; Niemi & Nevgi, 2014; Munthe & Rogne, 2015).

**(C) Communicative competence:** Teachers are interested in listening to others and effectively communicate in different interactional environments, including face-to-face and virtual online group work under social dimension and ethics dimension (Häkkinen et al., 2017).

**(C) Collaborative competence in professional learning community:**

Collaborative competence matters since it can foster productive interactions, such as questioning, explaining, arguing and solving problems together (Häkkinen et al., 2010; Mäkitalo-Siegl et al., 2012). Therefore, teachers with this competence will be able to evaluate the practices of their own community. With a local professional learning community built, teachers' competence development will be much more supportive with peers around, and much more sustainable for the local schools (Jäppinen et al., 2016).

**(C) Constructive feedback competence:** Teachers are able to comment, analyse and give feedback on their own thoughts and actions and those of others in a critical way. Moreover, teachers could support their critical thinking with resources in order to improve their own and others' thoughts and actions (Altmiller et al., 2018; Whitney & Ackerman, 2020).

**(P) Pedagogical competence:** Teachers are capable to base their practical teaching on research-based reflectional approach (Krokfors et al., 2011; Kansanen, 2014), including making lesson planning, implementing different teaching approaches, giving differentiated instructions and personalized support (Suprayogi et al., 2017) and carrying on evaluation work.

The expectation of the present research is to integrate these five competences (RCCCP) into the new student-centred pedagogy training project for Chinese teachers. Further, the present research will work on designing the suitable content to help implement the student-centred pedagogy in Chinese schools.

The RCCCP competences framework not only meets the needs of educating teachers for the 21st century, but also holds the similar idea with the objectives of in-service teacher training of several big cities in China. Since the quality of Chinese teachers varies at national level, it is too ambitious to use only one training model for all Chinese teachers. Therefore, the expectation of this training project is to serve teachers from big cities first, e.g. Shanghai, Beijing and Guangzhou. These cities can be pilot units of pedagogical reform because they

have high quality teachers, good educational resources and high level of internationalization.

Actually, Shanghai has gone through pedagogical transformations with the aim of strengthening the integration of research-based practices and continuous teacher training (结合教研转型要求, 加强研训一体建设) (Government of Shanghai, 2020) for many years. The Shanghai government supports teachers and students in primary and junior secondary schools carry out various forms of international visits, exchange and cooperation, as well as setting funds for basic education teachers, decision makers and other stakeholders to have educational visits and trips abroad each year (出国研修) (Government of Shanghai, 2020).

Teachers' competences in terms of communication skills, collaboration with peers and actively engaging in school community are also mentioned in many Chinese educational policies (MoE, 2010; Shanghai Municipal Education Commission, 2017). It were seen these skills are not only helpful to teachers' practice in classroom with students, but also benefit the whole school with positive atmosphere and developing professional learning community (Hargreaves & Fullan, 2015). It is might be easy to acquire these two competences in Chinese context since Chinese educational system has made efforts on them for many years. However, it will be difficult to achieve high-order thinking skills such as scientific thinking, constructive feedback and research-based pedagogical thinking competences among Chinese teachers.

## **4.2 Research methodology**

This study follows the design-based research methodology which aims to bridge theoretical researches and innovative practices of teaching and learning in local settings (The Design-Based Research Collective, 2003). Design-based research has been seen as an emerging paradigm that offers a tool through systemic design for understanding how theoretical knowledge can be transformed into a new educational environment (Brown, 1992; Collins, 1992; The Design-Based Research Collective, 2003). In this design-based research, Chinese teachers' needs

and the context of Chinese education system are taken account within the researcher's agenda, which aims to develop a localized student-centered pedagogy training program for effective changes in Chinese schools.

In the study process, it followed the six-step curriculum development process proposed by Richards (2001; see Figure 1) which includes needs analysis, situation analysis, planning goals, course planning and syllabus design, providing for effective teaching and materials, and approaches to evaluation.

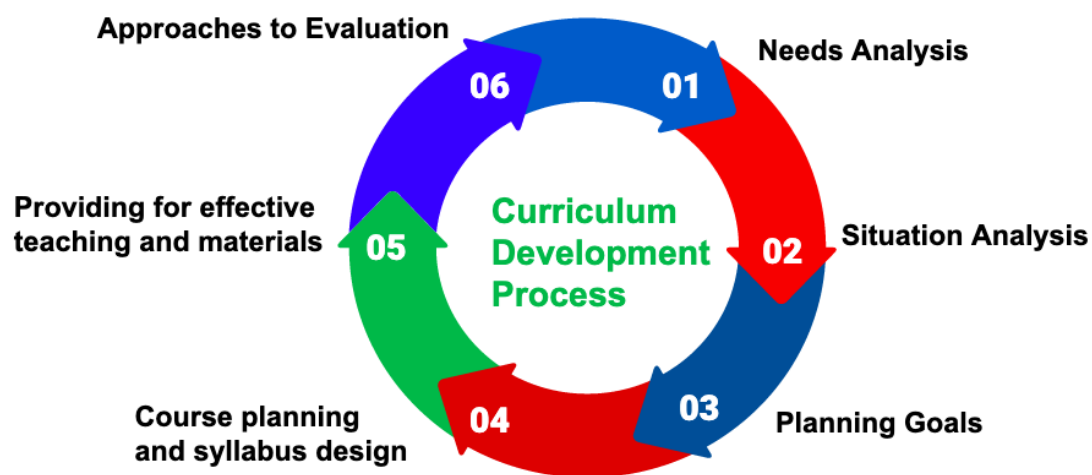


Figure 1: A six-step curriculum development process (Source: Richards, 2001)

As a first step, intended participants' needs were analyzed. In this step, Chinese teachers' level of knowledge and competences on student-centered pedagogy were taken into consideration. In the second step (i.e., situation analysis), the constraints of learning environment in China (e.g., the class size, the evaluation system, the limited choice of textbooks and materials) were considered and integrated into the design of the curriculum. Then, as a third step, the concrete goals and outcomes of the training program were provided to guide the implementation of the training program. After that, the curriculum contents were designed and presented. The aim is to step-by-step integrate the key components that have been showing effective in Finnish experiences. Next, in aiming to providing an example of an ideal model teaching, I designed a model (Module 5) that does practice the student-centered pedagogy with materials from Chinese textbook. Finally, different approaches of evaluation will be used before, during



and after the learning process, which includes pre-survey, post-survey, self-checklist, reflective learning diary, self-assessment and peer-assessment of group work, and interviews etc.

## 5 IMPLEMENTATION OF THE STUDY

In the chapter, it paints a picture of the content involved in the new student-centred pedagogy training project for Chinese teachers including theoretical framework, modules, goals, duration, teaching methods, learning methods and technical supports. A total of five modules were designed by the researcher which aiming at improving Chinese teachers' RCCCCP competences which is based on the specific characteristics of Finnish teacher education.

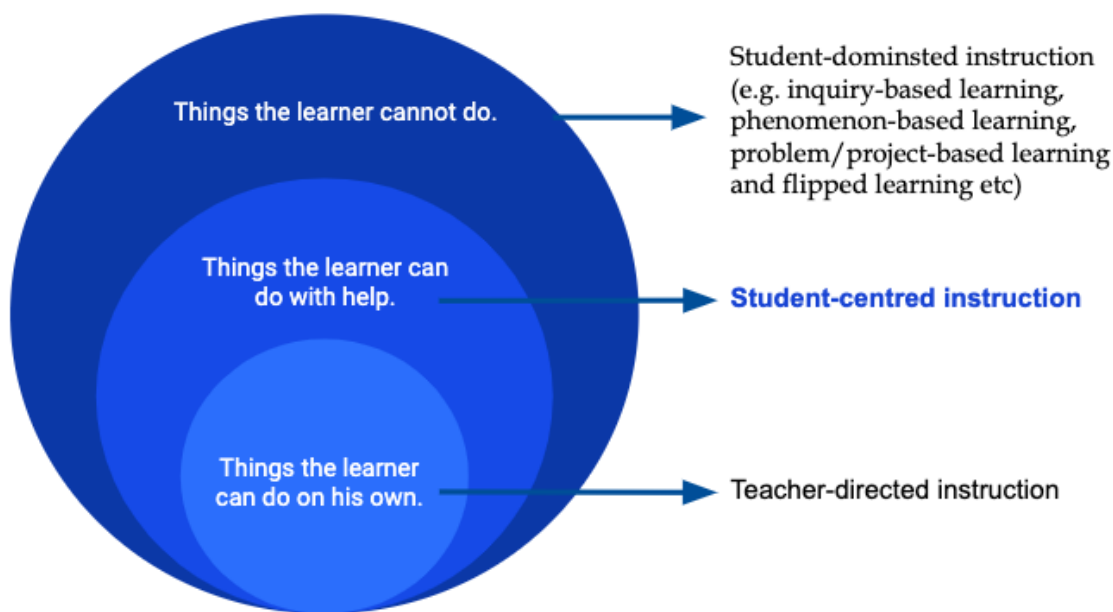
### 5.1 Design of the training project

Different from traditional lecture instruction of transmission of knowledge, this training project was designed for making lectures more engaging, more situational to teachers' interests and more learner-centred, which is based on Engaging Learning Environment Model proposed by Finnish teacher educators Lonka and Ketonen (2012). The model refers to three following principles in an iterative learning process: 1) Learners' current knowledge, experience and understanding of the topic will be diagnosed and activated before and during the learning process; 2) Learners will be activated in the learning process with many active methods, e.g. reflective inquiries, collaborative experience, small group discussion and mind-mapping; 3) Learners will conduct constructive self-evaluation, peer-evaluation and give feedback to each other (Lonka & Ketonen, 2012). According to Lonka and Saarinen (2000), such model has been applied to transform teacher-directed lectures into learner-centred approaches in Finland during the last decades. It makes learning become increasingly blended with integrating face-to-face training, online learning, webinar and other virtual learning environments together.

Simultaneously, the training project follows the concept of zone of proximal development (ZPD) by Vygotsky (1978). In the ZPD, learners practice new skills with help which are not too easy nor too difficult for them- that is why learners can experience motivation instead of feeling bored (too easy) or feeling anxious

and helpless (too difficult). So, this training emphasizes on Chinese teachers' real needs, instead of what Finnish education has recently been put under spotlight in the world, e.g. phenomenal-based learning since 2016. In order to help Chinese teachers toward mastering student-centred approaches effectively, we cannot throw everything out to them at once. It is necessary to recognize that the interventions should be located with the participants' ZPD, and then gradually teach Chinese teachers from know-what to know-how step-by-step.

The developer of this training project has conducted informal surveys and interviews among Chinese teachers and principals who came to Finland for educational visits in the past few years. Many Chinese educators share the common idea that the pedagogy improvement should be progressive for Chinese teachers. Nowadays, at least three styles of pedagogies exist all over the world which refers to traditional teacher-directed, student-centred and student-dominated (e.g. inquiry-based learning, phenomenon-based learning, problem/project-based learning and flipped learning etc). As Litemanen et al (2012) suggested that inquiry-based learning (or other types of student-dominated learning) posts higher challenges and produce more extensive emotional states to the learners than teacher-directed instruction, since it forces learners to work at tough tasks which are much more challengeable compared to their current competences (for details, see figure 2).



**Figure 2:** Summary of different pedagogies under zone of proximal development framework according to Chinese teachers' competence

In addition, it is vital to design this training project in a progressive learning process. The project is based on gradually deepening learning cycles, which supports updating the current practices to the next level and implementing the modern learning innovations in a meaningful way. Gradually deepening learning cycles enables teachers to move from knowing what the student-centred method is to knowing how to demonstrate it in classrooms. Meanwhile, the purpose of progressive process is to develop a school-based learning community and enhance school-based pedagogical leadership for Chinese local schools. Once Chinese teachers obtain self-drive motivation for their own professional development, Chinese schools could also be able to have reflective and autonomous teachers who are lifelong learners and pedagogical leaders at the same time.

In summary, this training project is developed on the basis of the Engaging Learning Environment Model, Zone of Proximal Development and progressive learning process in order to support Chinese teachers' student-centred pedagogical learning in a meaningful way.

## 5.2 Objectives of the training project

Although most western education systems propose teaching and learning objectives based on Bloom 's taxonomy, Chinese education pursues teaching goals according to the theory of three-dimensional teaching objectives: 1) Knowledge & skills; 2) Process & methods; 3) Emotional attitude & values. (Cheng et al., 2008; Chun & Meng, 2018) In the 2010s, the National Outline for Medium and Long-term Education Reform and Development Plan (2010-2020) addressed the design of education index system should be combined with the three- dimensional education objectives theory (MoE, 2010). Therefore, this training project will set training objectives based on Chinese three- dimensional education objectives theory. It is refined into the following items:

### Knowledge & skills objective

- ❑ Improving Chinese teachers' understanding on science of learning (such as the definition of learning in Finnish core curriculum for basic education, deep learning, joyful of learning) and the differences between student-centred and teacher-directed approaches, thereby improving Chinese teachers' knowledge and skills of student-centred teaching methods.
- ❑ Learn how Finnish teaching practices and school environment support student's motivation and participation.
- ❑ Learn a dozen of practical student-centred methods from Finnish comprehensive schools to stimulate Chinese students' intrinsic motivation and participation, thereby improving Chinese teachers' teaching efficiency.
- ❑ Practice and master how to integrate differentiated and personalized learning into lesson plans.
- ❑ Develop Chinese teachers' knowledge and skills on how student-centred methods foster students' 21st century skills (4C) and transversal competences.

- ❑ Make lesson plans with student-centred methods according to Chinese basic education curriculum and textbooks.

### **Process & method objective**

- ❑ The training project itself is learner-centred which integrates with setting personal learning goals, group discussion, writing learning journal, online webinars and collaborative assignments.
- ❑ The training process is to put participants as active learners and knowledge co-constructors. They will learn by doing and collaborating.
- ❑ It emphasizes on building positive emotional experiences, joyful learning and creative activities which will help promote learner's motivation and participation.
- ❑ It stresses the interactions of teacher-student, student-student as well as student-environment.

### **Emotional & attitude objective**

- ❑ Towards research-oriented teachers with reflective skills.
- ❑ Towards student-centred pedagogical leadership teachers.
- ❑ Towards high-impact teachers who know how to carry out new teaching practice and experiments in classrooms.

## **5.3 Duration and teaching methods of the training project**

As the Engaging Learning Environment Model (Lonka, 2012) suggests, it is productive to use both contact teaching and modern technologies, e.g. virtual learning platforms, online discussion and webinar to make knowledge and activities more visible and accessible. So, teaching methods in this training project will be conducted by both face-to-face workshops and online learning. Face-to-face workshops are held at the beginning and in the end of the project and the middle process are all held through online learning courses (see detail in Table 6).

Table 6: Duration of student-centred pedagogy training project in China

Week1	Week2	Week3	Week4	Week5	Week6	Week7	Week8
Start-up	Module1	Module2	Middle reflection	Module3	Module4	Module5	Wrap-up
Face to face workshop or online meeting	Online learning	Online learning	Webinar	Online learning	Online learning	Online learning	Face to face workshop or online meeting

In total, the duration of the project is 8 weeks if teachers can allocate about 10 hours per week to the course and complete at least one learning module per week.

## 5.4 Contents of the training modules

Considering the objectives given and described by the researcher, five modules (for details, see Table 7) were developed as a package on supporting Chinese teachers' pedagogical development.

TABLE 7 Content of student-centred pedagogy training for Chinese teachers' professional development

Module1:	Content
Module1: Introduction to Finnish high-impact student-centred pedagogy	To learn the specific characteristics of Finnish teacher education and student-centred pedagogy in their curriculum.  To learn good practices from Finland to improve Chinese teachers understanding of the science of learning, e.g. <ul style="list-style-type: none"> <li><input type="checkbox"/> The definition of learning in Finnish core curriculum for basic education</li> <li><input type="checkbox"/> Deep learning VS Joyful of learning</li> <li><input type="checkbox"/> Student-centred VS teacher-directed</li> </ul> Thereby promoting Chinese teachers' knowledge and skills on student-centred teaching methods.
Module2: How do Finnish teaching practices and school environment in	<ul style="list-style-type: none"> <li><input type="checkbox"/> The relationship between motivation, participation and learning.</li> </ul>

supporting students' motivation and participation?	<ul style="list-style-type: none"> <li><input type="checkbox"/> The role of learning content in the development of children's interest, motivation and participation.</li> <li><input type="checkbox"/> The role of teaching practices in the development of children's interest, motivation and participation.</li> <li><input type="checkbox"/> The role of school environment in the development of children's interest, motivation and participation.</li> </ul>
Module3: The active learning methods of implementing student-centred pedagogies in Finnish schools	To learn active learning methods on the student-centred pedagogies from Finnish comprehensive schools in practice to stimulate Chinese students' intrinsic motivation, class participation and school engagement, thereby improving Chinese teachers' teaching efficiency and making Chinese classrooms more student-centred.
Module4: The core elements of student-centred pedagogies: differentiated instruction and personalized learning supports	To learn and to do teaching practice on how to integrate differentiated teaching in lesson plans and personalized learning support from Finnish education system.
Module5: Teaching practice on lesson planning on the basis of Chinese curriculum and Chinese textbooks	To do teaching practice of student-centred approaches according to Chinese curriculum and Chinese textbooks which aiming for improving Chinese teachers' understanding on how student-centred approaches help foster students' future skills (e.g. 21st century 4C skills globally, or Transversal Competences in Finnish curriculum or Core Competencies in Chinese curriculum).

Considering to have active learning process for Chinese teachers, the teaching method of this training project is designed according to Engaging Learning Environment Model from Department of Teachers Education, University of Helsinki. It means the content will be taught by face-to-face workshops, mini video lectures online, personal learning journal as well as group works. The idea is to make the training project interactive, discussion-based, sensitive to the needs and interests of the participants whilst introducing them something new.

#### 5.4.1 **Module 1: Introduction to Finnish high-impact student-centred pedagogy**

Module 1 is to introduce student-centred pedagogy in academics and its implementation in Finland. Five micro-modules will be analysed:



First, teachers will learn a comparison of four teaching styles: teacher-directed style, student-centred style, student-dominated style and mixture of student-centred and teacher-directed style in Finnish comprehensive schools (Tang et al., 2017). It is important to keep in mind that the best teaching practice does not only use a student-centred approach, but relies on blending teaching approaches or mixed teaching styles (OECD, 2009). In fact, although Finnish teachers know that it is good to foster students' competence with student-centred approaches, it does not mean that Finnish teachers and schools are overly empowering students' autonomy in class. In fact, study conducted by Tang et al (2017) showed that most Finnish primary school teachers use the mixture of student-centred and teacher-directed teaching methods flexibly. Therefore, it is especially important to use appropriate level of student-centred method when learning pedagogical experience from Finland.

Then, to introduce the benefits of student-centred approaches to Chinese teachers via group work. According to the latest research from the Proceedings of the National Academy of Sciences of the United States of America (PNAS, 2019), student-centred approach with active methods can produce better learning outcomes (or bring traditionally valuable information), although learners / students themselves are more likely to incline to listen to teacher-directed lectures. Finnish educator Irmeli Halinen, the former director of the Finnish Education Curriculum Development Centre further explained that active learning was often more demanding than listening to a wonderful and fluent lecture, because it requires learners to focus more on listening to others' opinions, expressing their own thoughts, seeking information based on evidence, giving reflections, negotiating with teammates and involving in decision-making etc. At the same time, learners can learn the fundamental skills needed in life.

In addition, it is widely known that Finnish teachers enjoy pedagogical autonomy and freedom on choosing the teaching methods and learning materials as they wish. However, they need to follow the national curriculum and the curriculum of the school they are teaching in (Sahlbery, 2014). The definition of learning from Finnish perspective is the foundation of the student-centred

approach in schools. In this part, we will take a look at the conception of learning in Finnish National Core Curriculum for Basic Education as below:

The national core curriculum is based on a conception of learning that sees the pupils as active actors. They learn to set goals and to solve problems both independently and together with others.

..... Positive emotional experiences, the joy of learning and creative activities promotes learning and inspires the pupils to develop their competence.

Learning takes place in interaction with other pupils, the teachers and other adults, and various communities and learning environments.

The interests, appraisals, working approaches and emotions of pupils, as well as their experiences and ideas of themselves as learners, influenced their learning process and motivation.

[\(Finnish National Board of Education, 2016, p17\)](#)

Core elements of student-centred approaches will be addressed in the following section. A constructivist approach recognizes that knowledge is not acquired from teachers, but in a certain context that are the learners' socio-cultural background, the help of others (including teachers and learning partners), the necessary learning materials and together with constructing meaning to the learners. Because of the idea that learning is a process of interacting with others and environment, the core element of student-centred approach should consider situation, collaboration, conversation/dialogue and construction of meaning ([He, 1997](#)).

Finally, teachers work in groups to draw the challenges they meet when put student-centred approach in practice. It will be a good idea to summarize the differences between Chinese schools and Finnish schools through the following lens:

- Differences between Chinese and Finnish teachers in the use of teaching materials and textbooks.
- Differences between Chinese and Finnish teachers on the setting of teaching goals / learning goals.
- Differences between Chinese and Finnish teachers on evaluation framework.

- ❑ Differences between Chinese and Finnish teachers on time and workload.
- ❑ Differences between Chinese and Finnish teachers on their classroom quality and size.

Collaboration in groups requires participants not only to be active learners, but also be capable to give constructive feedback to peers. It is supposed that several challenges might emerge during the learning process since tasks will be discussed in groups where people may hold different opinions. Besides, participants may be unwilling to share their idea or have little to say. A possible solution might be that trainers give clear instructions on the role of different members in group work, e.g. the role of organizer, the secretary and the timekeeper. It is also a good idea to arrange active speakers in different groups. In addition, trainers need to let participants choose the way they want to present their discussion, e.g. mind map, poster, story or a drama play etc.

#### **5.4.2 Module 2: How do Finnish teaching practice and school environment in Finnish schools in supporting students' motivation and participation?**

Module 2 is to address the content of Finnish schools in learning/curriculum, teaching practice and school environment in supporting students' motivation and participation.

PISA 2018 showed students with high level participation and motivation have a positive influence on students' learning outcomes and life satisfaction. In order to increase or keep students' motivation and participation, teachers must be able to activate the students to participate more in school. But how to promote students' motivation and participation? This module will demonstrate clearly the scientific definition and interrelated characteristics of student participation and motivation, and the most important thing is to address how learning content, teaching practice and learning environment in Finnish comprehensives schools could support students' motivation and participation. The following will illustrate at least four sections of preliminary content of this module:

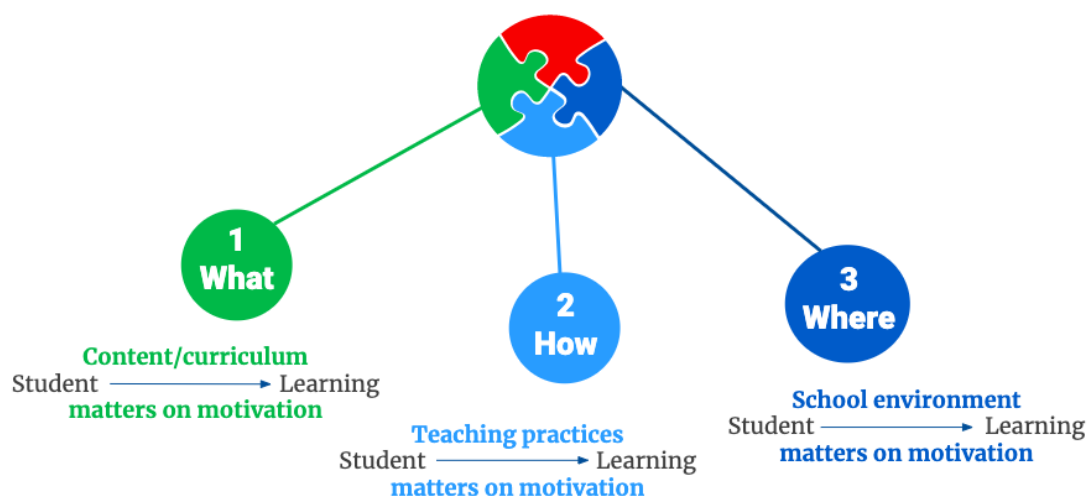
The first part is to introduce two mainstream motivation theories among contemporary scholars which refer to Expectancy-value theory of motivation (Eccles & Wigfield, 2002) and Self-determination theory (SDT) of motivation (Ryan & Deci, 2000). Then, reflection on thinking will be given about whether Chinese teachers and students really lack motivation to learn under the theoretical framework. Then point out the relational principles on how to motivate teachers and student's intrinsic motivation (Pintrich, 2003; Harackiewicz et al., 2016):

Principle 1: Novelty, Surprise, Incongruity and Uncertainty

Principle 2: Relevant, Variety and Hands-on

Principle 3: Autonomy, goal-oriented or problem-based and Teamwork

The next three sections illustrate how the content of curriculum, teaching practices and school environment all matter with regard to students' learning motivation and participation from Finnish experience (see Figure 3). In Asian culture, we always emphasize on doing MORE activities, more practices and more events to improve students' motivation, enthusiasm, interest and academic results. However, what Finnish schools do is LESS that while to motivate students to learn better. The author will explain why and how LESS is MORE matters regarding motivation in Finnish basic education through the lens of curriculum, teaching practice and school environment.



**Figure 3** Content of curriculum, teaching practices and school environment all have an influence on students' motivation

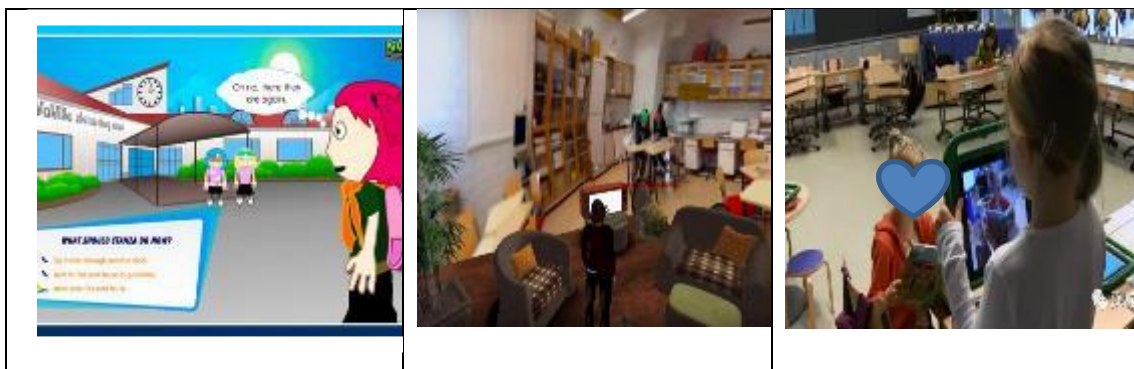
In order to improve Chinese students' intrinsic motivation, Chinese educators will learn how to distribute courses and lesson hours from Finnish curriculum. According to the Finnish National Core Curriculum for Basic Education published by the Finnish National Board of Education in December 2014, Finnish students have 18 compulsory courses in the basic education which refers to Mother tongue, Second official language, English, Mathematics, Environment and Nature, Biology and Geography, Physics and Chemistry, Health Education, Religion and Ethics, History and Social Studies, Music, Visual Arts, Crafts, Physical Education, Home Economics, Guidance and Counselling, Visual Arts. In addition, there are also elective courses, including such as language, French, German, Russian, etc ([Finnish National Board of Education, 2016](#)). Compared with Chinese curriculum for basic education, there are many distinctive courses in Finnish basic education, such as multilingual learning, learning in nature and real world, handcraft and technical work, home economics, student counselling course and phenomenon-based learning, etc ([see details in appendix 1](#)).

These thematic courses not only make learning related to students' daily life, but also promote the practical skills needed in real life and future work. At the same time, these transversal subjects give students autonomy to choose, to decide, to negotiate, to collaborate which means it fosters students 21 century skills. Moreover, It is sending the message that it is of the same importance whether working with the brains or working with hands.

When taking lens into Finnish teachers' teaching practices, many active methods (e.g. drama, role-play, game-based approach) are used in the classrooms ([Harju & Multisilta, 2014](#); [Ketamo, 2014](#); [Toivanen, 2016](#)). Cases are shown in the following pictures.



Meanwhile, learning through smartphone, digital storytelling, camera and virtual environment are becoming a shared pedagogy to activate student's motivation and engagement in Finnish schools (Harju et al., 2014; Penttilä et al., 2014). Cases are shown in the following pictures.



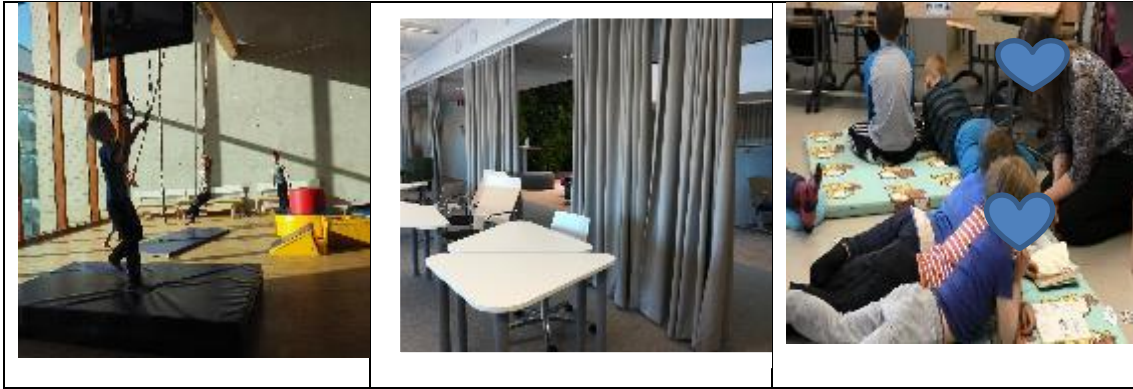
The last good teaching practice from Finnish schools is crossing classroom boundaries. Learning happens in a real context. Learning environment is not limited in the only classroom, but expanded to nature, in working places and in communities nearby (Niemi et al., 2014). Cases are shown in the following pictures.



Lastly, school environments as built pedagogy certainly have an influence on supporting students' learning motivation and participation. As Guney and Al (2012) claimed that teacher-centred schools' environments are likely to be single buildings with several floors and classrooms, with minimal flexibility in order to draw attention to the teacher in front of the classroom. In contrast, constructivist design may include a variety of different spaces where it is possible for learners to study independently or in social interaction with others. Consistent with learner-centred perspectives, learners have the chance to express their ideas on building school environments which are rooted in children's rights.

As Mäkelä (2018) described in her research, once students have influence over their learning environment, it will benefit their overall wellbeing, sense of belonging to the community, engaging in learning, increasing motivation and positive attitudes towards school. So in this part I will address several principles for building student-centred learning environments to foster learning, motivation and wellbeing (Mäkelä, 2018).

Principal 1: Building a FLEXIBLE environment to support both individual learning and collaborative learning. Cases are shown in the following pictures.



Principal 2: Building a HEALTHY and SPORTY environment to allow movements in the learning space. Cases are shown in the following pictures.



Principal 3: Building a NOVELTY environment to inspire student's exploration. Cases are shown in the following pictures.



Principal 4: Building a comfortable COMMUNALITY environment to increase students and teachers' belonging. Cases are shown in the following pictures.





The expectation of this module is to make Finnish good practices in supporting students' motivation and participation visible to Chinese teachers. Finnish basic education system is doing better than other countries due to crossing the boundaries from theoretical-good to practice-good.

Simultaneously, such good practices from Finnish schools will draw a picture that student-centred pedagogy is not only a matter for teachers in their own classrooms but also a matter for school leaders. It requires school leaders and education decision-makers' support in designing learner-centred environments. It is an education reform movement.

During this training module, the biggest challenge for Chinese teachers is how to motivate Chinese students' intrinsic motivation. Chinese teachers might question that Chinese students do not lack of motivation, but mostly it is expectancy-value motivation from parents and teachers which is driven by Chinese education evaluation system and standardized tests. Under this context, it worth trying of putting autonomy in the hands of students, e.g. students could decide how to do their homework.

#### **5.4.3 Module 3: The active learning methods of implementing student-centred pedagogies in Finnish schools**

Module 3 is to learn a dozen of active learning methods from Finnish education system in order to implement student-centred pedagogies in China.

Poikkeus et al (2011) addressed findings from Finnish First Steps Study. This project comprises a large-scale population of pupils born in 2000 from the beginning of their kindergarten to the end of high school and found that classroom practices and teachers instructions have strong influence on pupils'

academic learning, motivation and social-emotional skills development in kindergarten and elementary school. Therefore, teachers not only need to know active learning methods but also to be active learners themselves if they wish to mediate and support their students to become active learners (Niemi et al., 2016). This is the way to foster 21st century skills for both teachers and students. Although different definitions of 21st century skills, referred to as core competencies in Chinese curriculum, in contrast, Finland refers it as transversal competences, are given in different countries, there are commonalities among different definitions. The core factor is to emphasize on the capacity of lifelong learning both individually and collaboratively (Niemi et al., 2016), which are also core components in active learning.

Considering teachers competence in conducting active learning, teacher education shall empower student teachers' professional development in this field. One study by Finnish teacher educators and Turkish educators investigated (Niemi et al., 2016) student teachers' active learning experiences in teacher education and attempted to judge how active learning methods affected student teachers' professional development. Another study (Kimonen et al., 2017) examined that active learning methods are derived from a variety of sources in cognitive psychology, learning theory, pragmatic approaches, authentic learning and reflective practice. In both studies, active learning was found to have a high influence on learners' competences.

So, in this module, active learning styles in Finnish teachers' education will be demonstrated firstly, then the implementation of active learning methods in Finnish comprehensive schools will be introduced.

In the first place, what types of active learning experiences do Finnish teacher education have during their studies? According to Niemi et al (2016) study, Finnish student teachers have high active engagement experiences when they have autonomy to control their own learning by setting learning goals, giving reflection and doing self-evaluation on their own learning process and products which refers to active learning is a self-regulated process. Besides, working in small groups, having dialogue between learners and solving

problems collaboratively also lead student teachers to active involvement in which active learning is also a social interaction process. The last point is teaching practice combines research studies and learners own professional growth in authentic situations, meanwhile student teachers could do lesson plans for pupils, all of these make them highly involved. In this way, we can see active learning is a problem-based learning process. In this learning process, teachers' 21st century skills are developed. Teachers with these competences could possibly conduct active instruction and classroom practices in their working life.

Furthermore, how to promote pupils' active learning experiences in schools? Finnish research reveals (Poikkeus et al., 2011) classroom quality and teaching practices contribute to pupils' motivation and engagement, academic outcomes as well as social interaction skills. The definitions of classroom quality which refers to the following areas: teacher-student ratio, class size, school curriculum, and teachers' instructions are all helpful in promoting students' academic learning, motivation and engagement, and social-emotional skills (Poikkeus et al., 2011). However, Chinese teachers are like dancing with shackles. In most cases, Chinese teachers have no right to change the classroom quality. But they could make efforts on using active learning methods in instructions for pupils' better engagement.

The present research includes a design for a compass as an instructional tool (see details in Figure 4) which is based on both Finnish and international experience for Chinese teachers in conducting active learning. These activities consist of switching places, silent star, our strengths, hot chair, backpack of memories, 3 minutes drama, double think-pair-share, 4 corners, go if..., I am..., quiz quiz trade as well as Jigsaw method.



Figure 4: Compass for active learning methods

These activities help increase the group dynamics, learners' engagement, learners' social interaction skills, learners' feeling of belonging to a certain community and deepen the knowledge of a certain topic. The core principle behind these active activities is to respect young people and make their voice heard.

Double Think-Pair-Share (DTPS) activity is taken as an example to explain how to use the instructional compass in Chinese classrooms. As the developer and researchers of double think-pair-share explain that this activity is a classroom-based active learning strategy, in which students work on a problem posed by the teacher, students will work first individually, then in pairs, and finally as a class-wide discussion (Lyman, 1981; Kothiyal et al., 2013). Structural characteristics of double think-pair-share activity are associated with student's confidence, participation, sustained engagement and critical thinking (Kothiyal et al., 2013; Sampsel, 2013; Kaddoura, 2013), but in a large computing class using think-pair-share, the quality of sustained engagement appears to be even as high as 83% (Kothiyal et al., 2013). Students' motivation is activated, as well as cooperation and critical skills are improved in this activity.

The following is the six steps this activity consists of (see details in Figure 5):

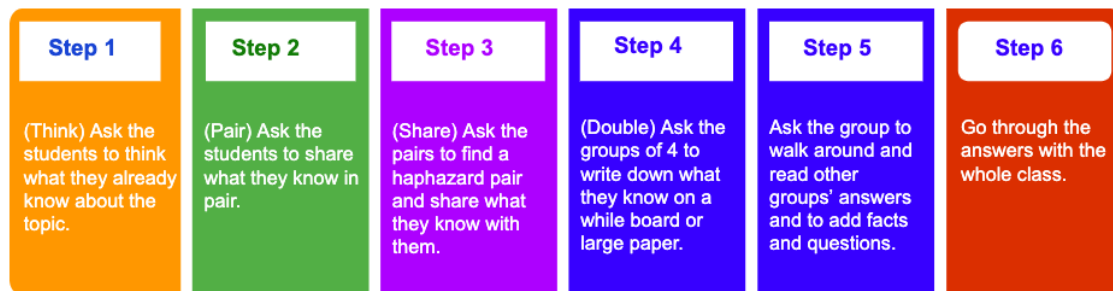


Figure 5: Double Think-Pair-Share

Step 1: (Think) Ask the students to think what they already know about the topic.

Step 2: (Pair) Ask the students to share what they know in pair.

Step 3: (Share) Ask the pairs to find a haphazard pair and share what they know with them.

Step 4: (Double) Ask the groups of 4 to write down what they know on a while board or a large piece of paper.

Step 5: Ask the group to walk around and read other groups' answers and to add facts and questions.

Step 6: Go through the answers with the whole class.

By showing these active learning methods, it is expected that Chinese teachers will have practical scaffolding tools when implementing student-centred pedagogy in their own classrooms.

During this module, it will challenge Chinese teachers' motivation and action of applying these learning methods in their own classrooms. After learning the instructions on different methods, it will be required as an assignment to take a short video on how it goes between the teacher and students in a real classroom. Teachers needs to do self-evaluation and also give comments, feedback and advices on peers' videos.

#### **5.4.4 Module 4: The core elements of student-centred pedagogies: differentiated instruction and personalized learning supports**

Module 4 is to illustrate the core elements of student-centred pedagogies: differentiated instruction and personalized learning supports.

As Finnish educator Välijärvi (2004) pointed out, one of the pedagogical characteristics of Finnish comprehensive school was that there is an equal opportunity for each individual to learn and develop in schools. Students are directed towards qualified social citizens with skills to express themselves, be confident in community and cope with different situations in working life. The objectives and practices of basic education are designed to match each student's interests, experiences and strengths in order to cultivate thoughtful, self-esteem and critical future citizens for Finland.

Some strategies are carried out in Finnish comprehensive schools to achieve the goal of meeting every students' needs and interests (Välijärvi, 2004).

In this module, the content is to explore Finnish way of coping with the heterogeneity of students. The content was designed with three micro-modules: the first part is about the definition of differentiation and Finnish way of implementing differentiated teaching. Another part is to set a structural individualized learning support system for pupils under the guidance of a three-tiered learning support system in Finland (Finnish National Board of Education, 2010). Last part is directed to integrate differentiated instruction and individualized learning support into the elements of the lesson plan.

First micro-module begins with the definition of differentiation. Then it is to introduce how the heterogeneity of students is addressed in the Finnish education system, although Finnish students are not divided into different types of schools during basic education (Välijärvi, 2004). As Välijärvi (2004) indicated in his study, Finland has carried out systematic strategies to satisfy every students' needs and interests since the 1970s: such as heterogeneous grouping, special education support, student counselling, small groups as well as student's welfare groups. All of these make teachers involved in taking care of every single student. Especially, Finnish teachers are able to differentiate their classroom

teaching via small heterogeneous groups or small homogenization groups to match with the variety of students' needs.

The second micro-module is to introduce a three-tiered special and inclusive education support system in Finnish comprehensive schools, especially how to support individual student's learning in the mainstream schools and in normal classes ([Finnish National Board of Education, 2010](#)). After entering the 21st century, in order to cope with the rapid expansion of the number of special education students and the demand for diversity talents in the new era, Finnish special education was shifting from special needs' supports towards supporting students' academic and socio-emotional and well-being. In the past decade, it emphasized more on individualized needs and differentiated teaching. Last but not least, the landmark step is that they have established a "three-level" special education support system in mainstream schools since 2011, which are general support, intensive support and special support ([Finnish National Board of Education, 2010](#)). Since then, it has focused on pedagogical support to individuals.

The last micro-module is designed to help Chinese teachers think about differentiated instruction and individualized learning support in the elements of lesson plans. Since pupils' learning habits, working rhythms, abilities, interests, emotional needs and background are different from each other, it is not enough to use only one tool to satisfy all the needs. Therefore, teachers should differentiate their instruction in order to take the needs of different pupils into account ([Chapman et al., 2005](#); [Tomlinson, 2014](#); [Tirri, 2016](#)). In addition, differentiation is a holistic process with processing differentiated learning material, differentiated instructions, diversity of learning environment and different forms of evaluation. All of these practices are aimed for personal needs for all, but not to distinguish or label students.

Teachers will be challenged to design their own differentiated instructions on real cases of students with different needs, e.g. talented learners and slow learners. Once participants have their own thoughts on the questions, it will go further by offering Finnish solutions as examples after they submit their ideas.

#### 5.4.5 Module 5: Teaching practice and lesson planning on the basis of Chinese curriculum and Chinese textbooks

Module 5 is to do teaching practice on lesson plans according to Chinese curriculum and Chinese textbooks with using student-centred approaches to understand how student-centred approaches help foster students' future skills.

It will be taught with three micro-modules: the definitions of future skills among countries, analysing a case of traditional teacher-directed lesson plans and then how this case could be carried out in a student-centred way.

To start with, to introduce the concepts of future skills differ among countries. Globally, the 21st century learning skills often refers to the 4C skills: communication, collaboration, critical thinking and creativity. Finland uses the item of Transversal Competences in their National Core Curriculum for Basic Education which covers 7 key subjects: (1) thinking and learning to learn; (2) cultural competence, interaction and self-expression; (3) taking care of oneself and managing daily life; (4) multiliteracy; (5) information and communications technology (ICT) competence; (6) working life competence and entrepreneurship; and (7) participation, involvement and building of a sustainable future (Finnish National Board of Education, 2016), while the term of Core Competencies has been used in China when identifying future skills in Core Competencies and Values for Chinese Students Development (林崇德, 2017), which includes (1) cultural literacy; (2) scientific thinking; (3) learn to learn; (4) healthy lifestyle and managing daily life; (5) responsibility for society and Chinese identity; (6) innovation and creativity (中国学生发展核心素养, 2016). It is shown that there are commonalities among these different definitions. As Niemi et al (2016) agree that the core factor behind different concepts is the same, all of which are to emphasize the capacity of lifelong learning both individually and collaboratively. It is necessary to address what are the core objectives of Chinese teachers to teach for in 21st century.

The second part is a case study of traditional teacher-directed lesson plans in China, whose topic is The View of my Father's Back (《背影》, see details in appendix 2) from a Chinese textbook for lower secondary school students. The



article is used nationwide and almost all Chinese teachers need to teach it wherever their schools are located. It is expected that though analysing a common lesson plan they are familiar with, teachers can clearly see the differences, resources and challenges they face when implementing a student-centred approach.

In the last part, Chinese teachers will do lesson plans and do teaching practices on how the case mentioned above could be carried out in a student-centred way and towards Chinese core competencies for students' holistic development. Student-centred pedagogy obviously benefits many dimensions of children's development and skills, but it is vital to combine it with the Chinese curriculum and Chinese textbooks when localizing it in China. So, this part is a practical transition from teacher-directed to student-centred instruction for Chinese teachers.

The lesson plan is designed but not limited with the following seven dimensions: learning goal, learning materials, learning environment, structure and instructions, teaching process and learning methods, tasks and time as well as evaluation methods (see detail in Table 8).

Table 8 Lesson plan for The View of my Father's Back

General information	
Topic	The View of my Father's Back
Grade	8th grade
Time	40mins * 3
How many students	35-40
Teachers	Two (subject teacher and assistant teacher)
Learning materials	Text of The View of my Father's Back, iPad or computer, paper
Learning environment	Classroom and space for group work
Learning goals based on three- dimensional objectives theory and Chinese Core Competencies: C1 Cultural literacy; C2 scientific thinking; C3 learn to learn; C4 healthy lifestyle and managing daily life; C5 responsibility for society and Chinese identity; C6 innovation and creativity.	

Knowledge & skills	<p>After this lesson, students are able to</p> <ol style="list-style-type: none"> <li>1. Understand the story and explain it in their own words (<a href="#">learn to learn</a>).</li> <li>2. Accumulate vocabulary on describing characters' movements and looks;</li> <li>3. Learn to retrieve and select information on internet (<a href="#">C3 learn to learn</a>);</li> <li>4. Foster critical thinking and scientific thinking on texts and others thoughts (<a href="#">C2 scientific thinking</a>);</li> <li>5. Improve the capability of self-evaluation and peer evaluation (<a href="#">C3 learn to learn</a>);</li> </ol>
Process & methods	<p>During this lesson, students are able to</p> <ol style="list-style-type: none"> <li>1. Learn to be constructive critical thinking on texts from internet, textbook and others' thoughts based on evidence (<a href="#">C2 scientific thinking</a>);</li> <li>2. Learn to work independently and have autonomy on his/her own learning and reading (<a href="#">C3 learn to learn</a>);</li> <li>3. Learn to work collaboratively in groups (<a href="#">C3 learn to learn</a>);</li> <li>4. Present group work in front of whole class with their own way (<a href="#">C6 innovation and creativity</a>);</li> </ol>
Emotional & attitude	<p>After this lesson, students are able to</p> <ol style="list-style-type: none"> <li>1. Understand the parent-child relationship in the context of traditional Chinese culture (<a href="#">C1 cultural literacy</a>);</li> <li>2. Be capable to recognize and accept your own emotions and mind growth (<a href="#">C4 healthy lifestyle and managing daily life</a>);</li> <li>3. Feel the love and death in the world.</li> </ol>
The progression of teaching process and learning methods:	
Independent work and teacher-directed	<ol style="list-style-type: none"> <li>1. Ask students to read the text of The View of my Father's Back and ask students to explain it in their own words.</li> </ol>
Inquiry learning independently	<ol style="list-style-type: none"> <li>1. Ask students to search for 5 articles on the internet about the same topic and select 1 article as a final one which will be brought to the group work.</li> <li>2. Teachers instruct clearly that the articles must be: <ol style="list-style-type: none"> <li>a. about family love: parents and grandparents are both ok;</li> <li>b. this article must be prose;</li> <li>c. the words are within 1500 words.</li> </ol> </li> </ol>
Group work	<ol style="list-style-type: none"> <li>1. Teachers give instruction on how to divide students into groups with 5 people in each group. Each student brings his/ her final article to the group.</li> <li>2. Teachers tell students the schedule and place where they can do group work and when they need to come back to the classroom.</li> <li>3. Teachers give clear instructions on how to choose the final one among five in the group: <ol style="list-style-type: none"> <li>a. Each member of the group must read all 5 articles;</li> <li>b. Use self-assessment to recommend why your article is good;</li> <li>c. Use peer-review to tell what the advantages are</li> </ol> </li> </ol>

	<p>and what the disadvantages are in others' articles.</p> <ol style="list-style-type: none"> <li>4. Ask students to study again the text of The View of my Father's Back in a group with problems-orientation. Teachers give clear instructions on what problems needed be discussed in group:             <ol style="list-style-type: none"> <li>a. Think about how the author describe his father's movements looks and feelings;</li> <li>b. If our emotion is a river, how does the son's emotion flow? Please draw a mind map of son's emotional river;</li> <li>c. Think about the relationship between the son and his father. Is there a gap between the father and the son? Please explain it.</li> <li>d. Think about: What makes the son really sad about? Love or death?</li> <li>e. In the article, there are several parts about the father's back. What do you think of the meaning of "back" written by the author? Please illustrate it.</li> </ol> </li> <li>5. When the students work in groups, teachers can walk around to give instructions and supports, to ask and answer questions, and to give suggestions if needed. Give students as much freedom to plan their work and to work in their own ways as possible.</li> <li>6. In the end, each group chooses the better article between The View of my Father's Back and the final one of their own group. Finally, present it to the whole class as a group.</li> </ol>
Presentations to the whole class	<ol style="list-style-type: none"> <li>1. Teachers give clear instructions on how to present the final article:             <ol style="list-style-type: none"> <li>a. Students can choose among the following ways: a mind map, a poster, a story or a drama play.</li> <li>b. 10 mins for each group;</li> <li>c. Teachers give instructions on group work, eg. the role of organizer, the host, the time keeper and the order to present.</li> </ol> </li> <li>2. Students present their work and explain it in their own words.</li> <li>3. Teachers support presentations and ask questions.</li> </ol>
Assessment	
Teacher 's assessment	<ol style="list-style-type: none"> <li>1. Give formative assessment in the progression of stages to support, to guide and to encourage them move forward;</li> <li>2. Give formative and summative assessment on their final presentations;</li> <li>3. Teachers also need to tell students what will be assessed and how to assess.             <ol style="list-style-type: none"> <li>a. Teachers can choose a self-assessment form, ask students to fill it and then discuss the answers.</li> <li>b. Teachers can ask questions to make student reflection on the work.</li> </ol> </li> </ol>
Self-assessment	<p>One way is to fill a self-assessment form. Another way is to ask questions:</p> <ol style="list-style-type: none"> <li>1. What did I learn from the topic?</li> </ol>

	<ol style="list-style-type: none"> <li>2. What did I learn in group work?</li> <li>3. What challenges did I have during the process?</li> </ol>
Peer-assessment	<p>One way is to fill a peer-assessment form. Another way is to ask questions:</p> <ol style="list-style-type: none"> <li>1. What were the things your peer did really well?</li> <li>2. Was his/her work easy to read?</li> <li>3. How could your peers improve their work?</li> </ol>

To summarize, it is always needed to draw attention to the accurate “level” when using a student-centred method: not every topic, not the whole teaching time (It is 45 mins for a course in Finland while 35 or 40 mins in China) and not all the level of children are suitable for student-centred pedagogies. It varies from the skill domains, the age and skills level of students (Poikkeus et al., 2011). In fact, the typical classroom in Finland mixes student-centred and teacher-directed as shown in the above lesson plan.

It will also be a big challenge for Chinese teachers in shifting between student-centred approach and teacher-directed approach. Peer support from local professional learning community is needed to overcome this difficulty in order to encourage them to learn from peers as much as possible.

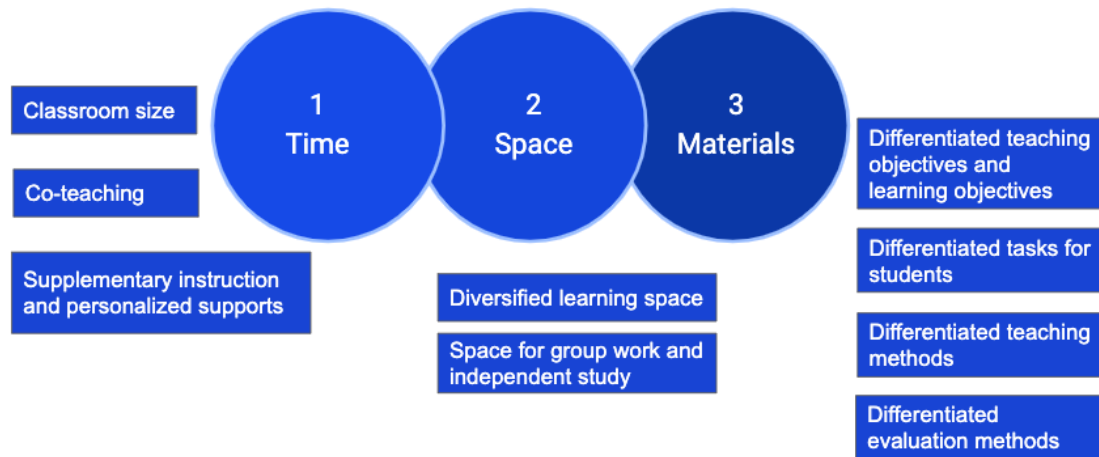
## 5.5 Challenges in implementing the training project

In addition to the challenges mentioned above, the whole training project faces more systemic challenges.

Firstly, Chinese teachers might argue the definition of learning and teaching based on constructivist approach which goes far away from Chinese evaluation system and standardized tests, even though they agree the holistic of learning benefits students’ core competences for the 21st century.

Secondly, Chinese teachers face harsh challenges in implementing student-centred approach, e.g. time, learning space and learning materials (see details in Figure 6). A student-centred approach costs time and causes students’ active movement in the classroom. However, the reality is that in a Chinese classroom, students are hardly able to move due to the proximity of desks and chairs. In addition, Chinese teachers need to finish the fixed content in the textbook within

a certain time. If they concentrate much on implementing student-centred approach, they may not be able to complete their teaching tasks.



**Figure 6 Challenges faced by Chinese teachers in implementing differentiated teaching**

Lastly, Finland is a small country with high level of homogeneity and its educational reform is consistent from government to local. Therefore, Finnish teachers could get support systematically. However, on the one hand, this kind of educational reform in China is too slow due to the Chinese large population and high level of differentiation in different areas. On the other hand, it puts a heavy burden on teachers if the pedagogical transform is led by teachers from bottom to up.

In the near future, the possible solutions to these challenges will be co-created by participants and trainers in the dynamic process.

## 6 DISCUSSION

PISA 2018 showed that Finland is the only country in the world with leading academic performance while students spend the least time on study in the world. It means that Finland has the highest learning efficiency in the world. Additionally, Finnish students has the highest level of life satisfaction in the world (OECD, 2019). As research directed that teaching practices greatly contribute to pupils' motivation, academic outcomes as well as wellbeing (Poikkeus et al., 2011). But the proportion of teaching methods learned in pre-service teacher education varies between China and Finland. This article has introduced the differences of teacher education between the two countries, especially the special characteristics behind Finnish high-quality teacher education are outlined.

When taking the lens in Finnish classrooms, we could see Finnish classrooms are mixed with different teaching practices including teacher-directed and student-centred (Tang et al, 2017). Therefore, this research has clearly made comparisons between teacher-directed and student-centred and how different teaching methods resulted in different learning outcomes and school climate (Tang et al., 2017).

Specially, this research has designed a training project consisting of five modules for helping Chinese education transformation from teacher-directed to student-centred paradigm. It has also explored how to learn from Finland in practice despite cultural differences and educational context.

### 6.1 Research implication

This research contributes to demonstrating how teacher education differs culturally between Finland and China, and clearly addresses what are the specific characteristics of Finnish pre-service teacher education (Krokkfors et al., 2011; Niemi & Nevgi, 2014). Furthermore, it is the first research which tries to localize Finnish model of student-centred pedagogy for Chinese teachers in basic

education, although there are a lot of articles comparing teacher education of these two countries (张晓光 2016; 周钧 & 公辰, 2016; 朱小虎 & 张民选, 2017; Mengru, 2017; 徐艺心, 2018).

The second contribution is that it creates a new teacher training project to implement meaningful student-centred teaching practices in China which is considering the specific characteristics of Finnish teacher education. The new training project fills the research gaps on student-centred pedagogy between Finland and China. Previous researches either focused on analyzing Finnish teacher education (Kansanen, 2003; Westbury et al., 2005; Niemi & Jakku-Sihvonen, 2011; Sahlberg, 2013; Mengru, 2017) or just compared Finnish teacher education with that of China (Tonga et al., 2019). What these researches did was only theoretical analysis. However, for the first time, this research has designed a structural training project beyond theoretical analysis. In addition, some research showed that the difficulties of learning Finnish experience since education is an ecosystem which is rooted deeply in its culture, and some other studies listed the possibilities to learn from Finland (张晓光 2016; 周钧 & 公辰, 2016; 朱小虎, & 张民选, 2017). But how to learn from Finnish education? Previous research did not tell the answers. In a way, this study fills the research gap and tells how.

The last contribution is that it offers a hands-on product for helping teachers transfer from teacher-directed paradigm to student-centred paradigm, which is specially targeted for Chinese teachers in basic education. In the last decade, more and more Chinese teachers have come to Finland for teacher training, even the Faculty of Education and Psychology in University of Jyväskylä has become the training base for Shanghai teachers. However, the majority of training courses developed by Finns stop at introducing Finnish education, rather than providing solutions based on Chinese education challenges. This is because, on the one hand, Finnish educators are not familiar with Chinese education system, on the other hand, Chinese educators are strangers to Finnish education. Luckily, the designer of this research has multiple identities and perspectives: a former Shanghai teacher who is now studying a Master's Degree in Educational Sciences

at a Finnish university, at the same time, working in Chinese teachers' training projects in Finland. These multiple identities enable the innovation for incorporating multiple perspectives in this training project.

## **6.2 Research limitations**

This research was done by using a scientific framework on student-centred pedagogy, analysing Finnish teacher education and integrating Finnish Engaging Learning Environment Model (Lonka, 2012). However, it could be more beneficial if Chinese teachers' learning motivation can be considered, since a significant amount of in-service training and professional development projects have put heavy workload on teachers and decreased their motivation for extra training. In addition, time constraint is another concern for Chinese teachers. It is important to design the duration and length based on teachers' wishes.

It is also important to notice that Finnish student teachers for basic education are all underling Master degree programs in academic universities and they are high quality human capital resources. However, although some Chinese teachers hold Master degree in China, most of Chinese teachers in elementary schools and lower secondary schools, especially in small cities, are undergraduates. It is reasonable to worry about how big the challenges are that Chinese teachers will face even though the training project has already considered the zone of proximal development.

This research does provide structural in-service training modules on student-centred pedagogy for Chinese teachers. However, it is good to keep in mind that there might be a gap between pre-service teachers' education and in-service teacher training, since this research takes Finnish pre-service teacher education as the framework when designing the training project.

## **6.3 Considerations for future research**

As this research makes a theoretical contribution to designing student-centred pedagogy training for Chinese basic education teachers which tries to localize the



Finnish model in China, further steps would be needed to apply and update the courses.

Firstly, it requires to find ways of applying the student-centred pedagogy training project in China. A pilot study will be developed in which several schools can be chosen from big cities like Shanghai and Beijing. The targeted group of teachers will be from top performance schools or international schools in China, because teachers in these school are of higher quality and they value students' core competences much more than other ordinary public schools. In addition, there is a need to design a scale or questionnaire to assess the effectiveness of the training project. It would be helpful to see both the pros and cons of the project. Besides, teachers' self-evaluation scale should be included to judge whether they grasp the skills or not.

Furthermore, there is a need to do classroom observation or interviews in Chinese schools, which would be useful to see the effectiveness of the present training project. Additionally, it would be helpful to diagnose Chinese teacher skills on student-centred approaches and collect data for the next level training project.

No one can deny that Finnish teacher education is at the top level in the world, even if it has its own need to be sustainable development. What if Finnish teachers teach in Chinese schools? It would be interesting and necessary to show cases in which Finnish teachers do lesson planning as well as teaching practice in China according to Chinese textbook and Chinese curriculum. Once the teaching content is fixed and student numbers in the class are as large as over 40, it will be interesting to conducting comparative studies on autonomy and pedagogical leadership between Finnish teachers and Chinese teachers.

Lastly, student-centred pedagogy is a dynamic process that evolves continuously, as students continuously develop their needs and skills. In the future, a series of sustainable research-based teacher training on student-centred pedagogy based on Chinese teachers' needs will be developed, which can not only provide in-depth understanding and practical tools on the topic, but also solve problems arising from Chinese schools' step by step.

## REFERENCES

- Azlina, N. N. (2010). CETLs: Supporting collaborative activities among students and teachers through the use of Think-Pair-Share techniques. *International Journal of Computer Science Issues*, 7(5), 18.
- Altmiller, G., Deal, B., Ebersole, N., Flexner, R., Jordan, J., Jowell, V., ... & Vottero, B. (2018). Constructive feedback teaching strategy: A multisite study of its effectiveness. *Nursing education perspectives*, 39(5), 291-296.
- Bransford, J. D., Brown, A. L., & Rodney, C. R. (2000). *How People Learn: Brain, Mind, Experience, and School: Expanded Edition* (2nd ed.). National Academies Press.
- Chen, J. (2015). Teachers' Conceptions of Approaches to Teaching: A Chinese Perspective. *The Asia-Pacific Education Researcher*, 24(2), 341-351.  
<https://doi.org/10.1007/s40299-014-0184-3>
- Cheng, Y. C. (2006). *New paradigm for re-engineering education: Globalization, localization and individualization* (Vol. 6). Springer Science & Business Media.
- CHENG, Y. Y., WANG, W., LI, X. Y., LIANG, X. Y., & ZHANG, Z. (2008). The Construction of Three-dimensional Innovative Experimental Teaching System and Model [J]. *Research and Exploration in Laboratory*, 7. Available from [http://en.cnki.com.cn/Article\\_en/CJFDTotal-SYSY200807031.htm](http://en.cnki.com.cn/Article_en/CJFDTotal-SYSY200807031.htm)
- Chun Li & Meng Jiang. (2018). Problems and Countermeasures in the Construction of the Evaluation Index System of the Teaching Effect of Online Course in Colleges and Universities-Reflection based on three-dimensional teaching objectives. Available from <https://doi.org/10.2991/iceiss-18.2018.84>
- Chapman, C., King, R., & King, R. M. (2005). *Differentiated assessment strategies: One tool doesn't fit all*. Corwin Press.
- Curriculum plans for students pursuing the Primary School Teacher Education Programme 2014-2017. Department of teacher education, University of Jyväskylä, Finland. Retrieved from <https://www.jyu.fi/edupsy/fi/laitokset/okl/en/curriculum/curriculum2014/view>

- Design-Based Research Collective. (2003). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher*, 32(1), 5-8.
- Deslauriers, L., McCarty, L. S., Miller, K., Callaghan, K., & Kestin, G. (2019). Measuring actual learning versus feeling of learning in response to being actively engaged in the classroom. *Proceedings of the National Academy of Sciences*, 116(39), 19251-19257. Available from <https://www.pnas.org/content/116/39/19251>
- Driscoll, M. P. (2005). *Psychology of learning for instruction, 3rd Edition*. Pearson.
- Distribution of lesson hours in Espoo basic education 2016. Available from [https://www.espoo.fi/en-US/Childcare\\_and\\_education/Comprehensive\\_education/Studying\\_in\\_comprehensive\\_school/Curriculum/Subjects\\_and\\_distribution\\_of\\_lesson\\_hours](https://www.espoo.fi/en-US/Childcare_and_education/Comprehensive_education/Studying_in_comprehensive_school/Curriculum/Subjects_and_distribution_of_lesson_hours)
- Emmer, E. T., & Stough, L. M. (2001). Classroom management: A critical part of educational psychology, with implications for teacher education. *Educational Psychologist*, 36, 103-112.
- European Commission (2010). Developing coherent and system-wide induction programmes for beginning teachers: a handbook for policymakers. Staff Working Document SEC (2010) 538 final, Directorate-General for Education and Culture. Brussels.
- Ertmer, P. A., & Newby, T. J. (1993). Behaviorism, cognitivism, constructivism: Comparing critical features from an instructional design perspective. *Performance Improvement Quarterly*, 6, 50-72.
- Eccles, J. S., & Wigfield, A. (2002). Motivational beliefs, values, and goals. *Annual review of psychology*, 53(1), 109-132.
- Finnish National Board of Education (2010). Amendments and additions to the National Core Curriculum for Basic Education. Available from [https://finlandiaccg.files.wordpress.com/2016/04/132551\\_amendments\\_and\\_additions\\_to\\_national\\_core\\_curriculum\\_basic\\_education.pdf](https://finlandiaccg.files.wordpress.com/2016/04/132551_amendments_and_additions_to_national_core_curriculum_basic_education.pdf)
- Finnish National Board of Education. (2016). National core curriculum for basic education.
- Finnish National Board for Education. (2017). Finnish National Board for Education - Current issues.
- F., Coughlan, R. W., Kanze, B., & Tyner-Mullings, A. R. (2017). Progressive education in the 21st Century: The enduring influence of John Dewey. *The Journal of the Gilded Age and Progressive Era*, 16(4), 515-530.

- Geeraerts, K., Tynjälä, P., Heikkinen, H. L., Markkanen, I., Pennanen, M., & Gijbels, D. (2015). Peer-group mentoring as a tool for teacher development. *European Journal of Teacher Education*, 38(3), 358-377. Retrieved from <https://doi.org/10.1080/02619768.2014.983068>
- Government of Shanghai. (2020). 中共上海市委上海市人民政府关于贯彻《中共中央、国务院关于深化教育教学改革全面提高义务教育质量的意见》的实施意见. Retrieved from <http://www.shanghai.gov.cn/nw2/nw2314/nw2319/nw12344/u26aw63449.html>
- Government of P.R.C. (2019). 《中共中央国务院关于深化教育教学改革全面提高义务教育质量的意见》. Retrieved from [http://www.gov.cn/xinwen/2019-07/11/content\\_5408394.htm](http://www.gov.cn/xinwen/2019-07/11/content_5408394.htm)
- Gui, Q., & Cheng, X-H. (2018). Research on teaching reform centered on learning. *Journal of Higher Education*, 35(9), 133-135.
- Guney, A., & Al, S. (2012). Effective learning environments in relation to different learning theories. *Procedia-Social and Behavioral Sciences*, 46, 2334-2338.
- Guo, Shao-dong. (2008). An Overview of Researches on Curriculum Localization since Reform and Opening in China [J]. *Jiangsu Education Research*, 13.
- Hargreaves, A., & Fullan, M. (2015). *Professional capital: Transforming teaching in every school*. Teachers College Press.
- Halinen, I., & Järvinen, R. (2008). Towards inclusive education: the case of Finland. *Prospects*, 38(1), 77-97.
- Harju, V., & Multisilta, J. (2014). Angry Birds for Fun in Learning. In *Finnish Innovations and Technologies in Schools* (pp. 67-76). Brill Sense.
- Harju, V., Viitanen, K., & Vivitsou, M. (2014). Digital storytelling in Finnish schools. In *Finnish Innovations and Technologies in Schools* (pp. 49-56). Brill Sense.
- Halpin, D. (2014). Teaching and Learning in Chinese Schools: Core Values and Pedagogic Philosophy. *Chinese Studies*, 3(1), 1-3. <https://doi.org/10.4236/chnstd.2014.31001>
- Häkkinen, P., Arvaja, M., Häimäläinen, R., & Pöysä, J. (2010). Scripting computer-supported collaborative learning: A review of SCORE studies. In B. Ertl (Ed.), *E-collaborative knowledge construction: Learning from*

computer-supported and virtual environments (pp. 180-194). New York, NY: IGI Global.

Heikkinen, H. L., Jokinen, H., & Tynjälä, P. (Eds.). (2012). *Teacher education and development as lifelong and life wide learning. Peer-group mentoring for teacher development*. Routledge.

Häkkinen, P., Järvelä, S., Mäkitalo-Siegl, K., Ahonen, A., Näykki, P., & Valtonen, T. (2017). Preparing teacher-students for twenty-first-century learning practices (PREP 21): a framework for enhancing collaborative problem-solving and strategic learning skills. *Teachers and Teaching*, 23(1), 25-41.

Heikkinen, H. L., Wilkinson, J., Aspfors, J., & Bristol, L. (2018). Understanding mentoring of new teachers: Communicative and strategic practices in Australia and Finland. *Teaching and Teacher Education*, 71(April 2018), 1-11.

何克抗. (1997). 建构主义: 革新传统教学的理论基础(上). 《电化教育研究》1997年第3期. Available from <http://file.snnu.net/res/20125/31/bc3c561d-82aa-41bf-a0e1-a06200b15bfd.pdf>

Jäppinen, A. K., Leclerc, M., & Tubin, D. (2016). Collaborativeness as the core of professional learning communities beyond culture and context: evidence from Canada, Finland, and Israel. *School Effectiveness and School Improvement*, 27(3), 315-332.  
<https://doi.org/10.1080/09243453.2015.1067235>

Kansanen, P. (2003). Teacher education in Finland: Current models and new developments. *Institutional approaches to teacher education within higher education in Europe: Current models and new developments*, 85-108.

Kansanen, P. (2014). Teaching as a master's level profession in Finland: Theoretical reflections and practical solutions. *In Workplace learning in teacher education* (pp. 279-292). Springer, Dordrecht.

Kaddoura, M. (2013). Think pair share: A teaching learning strategy to enhance students' critical thinking. *Educational Research Quarterly*, 36(4), 3-24.

Keski-Mäenpää, Kati. (2018). Towards student-centred pedagogy : action research with Ethiopian village school teachers. 2018. Retrieved from <https://jyx.jyu.fi/handle/123456789/56983>

Kimonen, E., Nevalainen, R., & Schoen, L. T. (2017). Active Learning for Educational Change: Finnish Students and Teachers as Active Learners. *In Reforming Teaching and Teacher Education* (pp. 225-252). Brill Sense.

Available from

<https://brill.com/view/book/edcoll/9789463009171/BP000010.xml>

- Kothiyal, A., Majumdar, R., Murthy, S., & Iyer, S. (2013, August). Effect of think-pair-share in a large CS1 class: 83% sustained engagement. In Proceedings of the ninth annual international ACM conference on International computing education research (pp. 137-144).
- Krokfors, L., Kynäslahti, H., Stenberg, K., Toom, A., Maaranen, K., Jyrhämä, R., ... & Kansanen, P. (2011). Investigating Finnish teacher educators' views on research - based teacher education. *Teaching Education*, 22(1), 1-13.
- Lavonen, J. (2016). Educating professional teachers through the master's level teacher education programme in Finland. *Bordón. Revista de pedagogía*, 68(2), 51-68.
- Lerkkanen, M.-K., Kiuru, N., Pakarinen, E., Poikkeus, A.-M., Rasku-Puttonen, H., Siekkinen, M., & Nurmi, J.-E. (2016). Child-centered versus teacher-directed teaching practices: Associations with the development of academic skills in the first grade at school. *Early Childhood Research Quarterly*, 36, 145-156. <https://doi.org/10.1016/j.ecresq.2015.12.023>
- Leena Krokfors, Heikki Kynäslahti, Katariina Stenberg, Auli Toom, Katriina Maaranen, Riitta Jyrhämä, Reijo Byman & Pertti Kansanen (2011) Investigating Finnish teacher educators' views on research - based teacher education, *Teaching Education*, 22:1, 1-13.
- Litmanen, T., Lonka, K., Inkinen, M., Lipponen, L., & Hakkarainen, K. (2012). Capturing teacher students' emotional experiences in context: does inquiry-based learning make a difference?. *Instructional Science*, 40(6), 1083-1101.
- Li, L., & Wegerif, R. (2014). What does it mean to teach thinking in China? Challenging and developing notions of 'Confucian education'. *Thinking skills and creativity*, 11, 22-32. <https://doi.org/10.1016/j.tsc.2013.09.003>
- Li, D., Remedios, L., & Clarke, D. (2014). Chinese students' groupwork practices and experiences in China. *Higher Education*, 68(2), 227-241.
- Lo, L. N. (2019). Teachers and teaching in China: a critical reflection. *Teachers and Teaching*, 25(5), 553-573. <https://doi.org/10.1080/13540602.2019.1632823>
- Lonka, K., & Saarinen, E. (2000). Think fearlessly: How to activate a group of 700 students? A workshop in Innovations in Higher Education 2000 Conference, Helsinki, Finland, August 30-Sept 2, 2000.

- Lonka, K., & Ketonen, E. (2012). How to make a lecture course an engaging learning experience? *Studies for the learning society*, 2(2-3), 63-74.
- Luo, Y., Guo, F., & Shi, J. (2018). Expansion and inequality of higher education in China: How likely would Chinese poor students get to success? *Higher Education Research & Development*, 37(5), 1015-1034.
- Lyman, F.T. 1981. The responsive classroom discussion: The inclusion of all students. In *Mainstreaming Digest*, ed. A. Anderson, 109-113. College Park: University of Maryland Press.
- 林崇德. (2017). 构建中国化的学生发展核心素养. *北京师范大学学报 (社会科学版)*, 1, 66-73.
- Marita kontoniemi & Olli-Pekka Salo. (Eds). *Educating teachers in the PISA paradise: Perspectives on teacher education at a Finnish university*.
- Mäkelä, T. (2018). A design framework and principles for co-designing learning environments fostering learning and wellbeing. *Jyväskylä studies in education, psychology and social research*, (603).
- Mäkitalo-Siegl, K., Stegmann, K., Frete, A., & Streng, S. (2012). Orchestrating technology- enhanced collaborative learning: Effects of knowledge sharing and shared knowledge. In S. Abramovich (Eds.), *Computers and education*. (Vol. 1, pp. 75-91). New York: Nova Science.
- Mengru, L. I. (2017). Research-based Teacher Education Mode in Finland and Inspirations for China. *Journal of Teacher Education*, (3), 15.
- Munthe, E., & Rogne, M. (2015). Research based teacher education. *Teaching and teacher education*, 46, 17-24.
- Ministry of Education of the People's Republic of China. (2001). The National Outline for Basic Education Curriculum Reform. Available from [http://www.moe.gov.cn/srcsite/A26/jcj\\_kcjcggh/200106/t20010608\\_167343.html](http://www.moe.gov.cn/srcsite/A26/jcj_kcjcggh/200106/t20010608_167343.html)
- Ministry of Education of the People's Republic of China. (2010). The National Outline for Medium and Long-term Education Reform and Development Plan (2010-2020). Available from <http://old.moe.gov.cn/publicfiles/business/htmlfiles/moe/s3501/index.html>
- Ministry of Education of the People's Republic of China. (2010). Notice of the Ministry of Education and the Ministry of Finance on the Implementation of the "National Training Program for Primary and Secondary School Teachers". Retrieved from

[http://www.moe.gov.cn/srcsite/A10/s7034/201006/t20100630\\_146071.html](http://www.moe.gov.cn/srcsite/A10/s7034/201006/t20100630_146071.html)

Ministry of Education of the People's Republic of China. 教育部关于印发义务教育语文等学科课程标准（2011年版）的通知. Retrieved from [http://www.moe.gov.cn/srcsite/A26/s8001/201112/t20111228\\_167340.html](http://www.moe.gov.cn/srcsite/A26/s8001/201112/t20111228_167340.html)

Munthe, E., & Rogne, M. (2015). Research based teacher education. *Teaching and teacher education*, 46, 17-24.

Ministry of Education of the People's Republic of China. (2016). Notice of the Ministry of Education and the Ministry of Finance on the Implementation of the "National Training Program for Primary and Secondary School Teachers". Retrieved from [http://www.moe.gov.cn/srcsite/A10/s7034/201601/t20160126\\_228911.html](http://www.moe.gov.cn/srcsite/A10/s7034/201601/t20160126_228911.html)

Niemi, H., & Jakku-Sihvonen, R. (2011). Teacher education in Finland. *European dimensions of teacher education: Similarities and differences*, 33-51.

Niemi, H. (2012). "The Societal Factors Contributing to Education and Schooling in Finland." In *Miracle of Education*, edited by H. Niemi, A. Toom, A. Kallioniemi, and H. Niemi, 19-38. Rotterdam: Sense Publishers. 10.1007/978-94-6091-811-7

Niemi, H., & Nevgi, A. (2014). Research studies and active learning promoting professional competences in Finnish teacher education. *Teaching and Teacher Education*, 43, 131-142.

Niemi, H., Multisilta, J., & Löfström, E. (Eds.). (2014). *Crossing Boundaries for Learning-Through Technology and Human Efforts*. Helsinki, Finland: Cicero Learning Network, University of Helsinki.

Niemi, H., & Nevgi, A. (2014). Research studies and active learning promoting professional competences in Finnish teacher education. *Teaching and Teacher Education*, 43, 131-142. Retrieved from <https://doi.org/10.1016/j.tate.2014.07.006>

Niemi, H. (2015). Teacher professional development in Finland: Towards a more holistic approach. *Psychology, Society, & Education*. Vol. 7(3), pp. 279-294.

Niemi, H., Toom, A., & Kallioniemi, A. (Eds.). (2016). *Miracle of education: The principles and practices of teaching and learning in Finnish schools*. Springer.



- Niemi, H., Nevgi, A., & Aksit, F. (2016). Active learning promoting student teachers' professional competences in Finland and Turkey. *European Journal of Teacher Education*, 39(4), 471-490. Available from <https://www.tandfonline.com/doi/pdf/10.1080/02619768.2016.1212835?needAccess=true>
- OECD. (2010). *PISA 2009 Results: What Students Know and Can Do*. OECD Publishing. <https://doi.org/10.1787/9789264091450-en>
- OECD. (2014). *Education at a Glance 2014: OECD Indicators*. Paris. <https://www.oecd.org/edu/Education-at-a-Glance-2014.pdf>
- OECD. (2014). *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014)*. OECD Publishing. <https://doi.org/10.1787/9789264208780-en>
- OECD. (2016a). *Education in China: A snapshot*. Retrieved April 17, 2018, from <https://www.oecd.org/china/Education-in-China-a-snapshot.pdf>
- OECD. (2016b). *PISA 2015 high performers: China*. Retrieved April 17, 2018, from <https://www.oecd.org/pisa/PISA-2015-china.pdf>
- OECD. (2018) *Education at a glance: Educational attainment and labour-force status*. <https://doi.org/10.1787/19991487>
- Ormrod, J. E. (2012). *Human Learning, 6th Edition*. Boston: Pearson.
- Poikkeus, Anna-Maija ; Lerkkanen, Marja-Kristiina ; Rasku-Puttonen, Helena (2011). The role of classroom interactional quality and teaching practices in the development of children's academic skills and motivation - findings from the first steps study. *Educating teachers in the PISA paradise: Perspectives on teacher education at a Finnish university*.
- Penttilä, J., Kallunki, V., & Ojalainen, J. (2014). Science through the camera lens. In *Finnish Innovations and Technologies in Schools* (pp. 57-66). Brill Sense.
- PISA 2018 Insights and Interpretations. Available from <https://www.oecd.org/pisa/PISA%202018%20Insights%20and%20Interpretations%20FINAL%20PDE.pdf>
- PISA 2018 first results - Finland among the top performers. Available from <http://julkaisut.valtioneuvosto.fi/handle/10024/161921>
- PISA 2018 Sneak Preview. Available from [https://www.slideshare.net/OECD/edu/pisa-2018-sneak-preview?from\\_action=save](https://www.slideshare.net/OECD/edu/pisa-2018-sneak-preview?from_action=save)

- Penttilä, J., Kallunki, V., & Ojalainen, J. (2014). Science through the camera lens. In *Finnish Innovations and Technologies in Schools* (pp. 57-66). Brill Sense.
- Pietarinen, J., Pyhältö, K., & Soini, T. (2017). Large-scale curriculum reform in Finland—exploring the interrelation between implementation strategy, the function of the reform, and curriculum coherence. *The Curriculum Journal*, 28(1), 22-40.
- Prawat, R. S., & Floden, R. E. (1994). Philosophical perspectives on constructivist views of learning. *Educational Psychologist*, 29, 37–48.
- Peña-López, I. (2009). Creating effective teaching and learning environments: First results from TALIS. Available from <http://www.oecd.org/education/school/creatingeffectiveteachingandlearningenvironmentsfirstresultsfromtalish.htm>
- Rasku-Puttonen, H., Pakarinen, E., Trossmann, K., Lerkkanen, M.-K., Kikas, E., & Poikkeus, A.-M. (2011). Classroom practices in Finnish and Estonian preschools: Subgroups of observed teaching practices. In M. Veisson, E. Hujala, P. K. Smith, M. Waniganayake, & E. Kikas (Eds.), *Global perspectives in early childhood education: Diversity, challenges and possibilities* (pp. 313–331). Frankfurt am Main: Peter Lang.
- Reinikka, R., Niemi, H., & Tulivuori, J. (2018). *Stepping Up Finland’s Global Role in Education*.
- Richards, J. C. (2001). *Curriculum development in language teaching*. Ernst Klett Sprachen.
- Reinikainen, P. 2012. “Amazing PISA Results in Finnish Comprehensive Schools.” In *Miracle of Education*, edited by H. Niemi, A. Toom, A. Kallioniemi, and H. Niemi, 3–18. Rotterdam: Sense Publishers.10.1007/978-94-6091-811-7
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
- Sahlberg, P. (2011). *Finnish lessons: What can the world learn from educational change in Finland?* New York: Teacher College Press.
- Sahlberg, P. (2013). The most wanted: Teachers and teacher education in Finland. In *Teacher education around the world* (pp. 15-35). Routledge.
- Sahlberg, P. (2014). *Finnish lessons 2.0: What can the world learn from educational change in Finland?* Teachers College Press.

- Sampsel, A. (2013). Finding the effects of think-pair-share on student confidence and participation.
- Säntti, J., & Kauko, J. (2019). Learning to Teach in Finland: Historical Contingency and Professional Autonomy. Knowledge, Policy and Practice in Teacher Education: A Cross-National Study, 81.
- Säntti, J & Salminen, J (2015). Development of Teacher Education in Finland 1945-2015. Hungarian educational research journal, vol. 5, no. 3, pp. 1-18.
- Simola, H. (2005). The Finnish miracle of PISA: Historical and sociological remarks on teaching and teacher education. *Comparative education*, 41(4), 455-470. <https://doi.org/10.1080/03050060500317810>
- Simola, H., Rinne, R., Varjo, J., Pitkänen, H., & Kauko, J. (2009). Quality assurance and evaluation (QAE) in Finnish compulsory schooling: a national model or just unintended effects of radical decentralisation?. *Journal of Education Policy*, 24(2), 163-178.
- Statistics Finland (2011) Official Statistics of Finland: Concepts. Available from [https://www.stat.fi/meta/kas/erityisop\\_siir\\_en.html](https://www.stat.fi/meta/kas/erityisop_siir_en.html)
- Stipek, D., & Byler, P. (2004). The early childhood classroom observation measure. *Early Childhood Research Quarterly*, 19, 375–397.
- Stipek, D., & Byler, P. (2005). *The early childhood classroom observation measure*. Unpublished coding manual, School of Education, Stanford University.
- Suprayogi, M. N., Valcke, M., & Godwin, R. (2017). Teachers and their implementation of differentiated instruction in the classroom. *Teaching and Teacher Education*, 67, 291-301.
- Tan, C. (2012). Learning from Shanghai: Lessons on Achieving Educational Success. Springer. Retrieved from <http://books.google.fi/books?id=9QQ-IY2qQuAC>
- Tan, C. (2017). Constructivism and pedagogical reform in China: Issues and challenges. *Globalisation, Societies and Education*, 15(2), 238-247. <https://doi.org/10.1080/14767724.2015.1105737>
- Tang, X. (2015). Untangling the complex reasons behind success in the PISA test – An essay on Finnish education and Chinese education. CEREC Working Paper Series.
- Tang, X., Kikas, E., Pakarinen, E., Lerkkanen, M.-K., Muotka, J., & Nurmi, J.-E. (2017). Profiles of teaching practices and reading skills at the first and third grade in Finland and Estonia. *Teaching and Teacher Education*, 64, 150–161. <https://doi.org/10.1016/j.tate.2017.01.020>

- Tirri, K., & Puolimatka, T. (2000). Teacher Authority in Schools: a case study from Finland. *Journal of Education for Teaching*, 26(2), 157-165. Available from <https://doi.org/10.1080/02607470050127072>
- Tirri, K. (2014). The last 40 years in Finnish teacher education. *Journal of Education for Teaching*, 40(5), 600-609. Available from <https://doi.org/10.1080/02607476.2014.956545>
- Tirri, K. (2016). Holistic perspectives on gifted education for the 21st century. In *Giftedness and Talent in the 21st Century* (pp. 101-110). Brill Sense.
- Toom, A., Kynäslähti, H., Krokfors, L., Jyrhämä, R., Byman, R., Stenberg, K., ...& Kansanen, P. (2010). Experiences of a Research - based Approach to Teacher Education: suggestions for future policies. *European Journal of Education*, 45(2), 331-344.
- Tonga, F. E., Eryiğit, S., Yalçın, F. A., & Erden, F. T. (2019). Professional development of teachers in PISA achiever countries: Finland, Estonia, Japan, Singapore and China. *Professional Development in Education*, 1-17.
- Tomlinson, C. A. (2014). *The differentiated classroom: Responding to the needs of all learners*. Ascd.
- Tao, Y., Oliver, M., & Venville, G. (2013). A comparison of approaches to the teaching and learning of science in Chinese and Australian elementary classrooms: Cultural and socioeconomic complexities. *Journal of Research in Science Teaching*, 50(1), 33-61. <https://doi.org/10.1002/tea.21064>
- Toom, A., Kynäslähti, H., Krokfors, L., Jyrhämä, R., Byman, R., Stenberg, K., ...& Kansanen, P. (2010). Experiences of a Research - based Approach to Teacher Education: suggestions for future policies. *European Journal of Education*, 45(2), 331-344.
- Toivanen, T. (2016). Drama Education in the Finnish School System—Past, Present and Future. In *Miracle of Education* (pp. 227-240). Brill Sense.
- Väljjarvi, J., Kupari, P., Linnakylä, P., Reinikainen, P., Sulkunen, S., Törnroos, J., & Arffman, I. (2007). The Finnish success in PISA – and some reasons behind it 2: PISA 2003. Jyväskylä, Finland: Institute for Educational Research, University of Jyväskylä. Retrieved from <https://ktl.jyu.fi/julkaisut/julkaisuluettelo/julkaisut/2007/d084>
- Väljjarvi, J. (2004). The system and how does it work: Some curricular and pedagogical characteristics of the Finnish comprehensive school. *Education Journal*, 32(1), 31-55.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

- Wang, N., Zhang, J-Y, & Chen, J-W. (2018). Five transformations: break the dilemma in the 'learning-centered' classroom teaching. *Modern Educational Technology*, 28(7), 79-84.
- Wan, J. (2013). Localization of the English public speaking course in China's EFL curriculum. *Asian Social Science*, 9(1), 94.
- Westbury, I., Hansén, S. E., Kansanen, P., & Björkvist, O. (2005). Teacher education for research - based practice in expanded roles: Finland's experience. *Scandinavian Journal of educational research*, 49(5), 475-485.
- Whitney, T., & Ackerman, K. B. (2020). Acknowledging Student Behavior: A Review of Methods Promoting Positive and Constructive Feedback. *Beyond Behavior*, 1074295620902474.
- 徐艺心. (2018). 芬兰与我国中小学教师培养的比较研究. *基础教育研究*, 000(022), 13-14.
- Zhao, Y. (2013). Reading the PISA Tea Leaves: Who Is Responsible for Finland's Decline and the Asian Magic. Retrieved March 11, 2014, from <http://zhaolearning.com/2013/12/02/reading-the-pisa-tea-leaves-who-is-responsible-for-finland's-decline-and-the-asian-magic/>
- Zhou, J. (2014). Teacher education changes in China: 1974-2014. *Journal of Education for Teaching*, 40(5), 507-523.
- Zhou, Jun, Yiyang Tang, and Aiyu Gong. 2011. "A Study on Teacher Education Curriculum at Undergraduate Level in China." *Teacher Education Research* 23 (4): 44-50
- Zhao, J. (2018). Reforming the instruction in the experimental course: applying the learner-centered approach. *Journal of Higher Education*, 18(1), 132-134.
- 朱小虎, & 张民选. (2017). 教师专业发展的可能路径——基于 TALIS 2013 上海和芬兰的比较分析. *中国教育学刊*, (9), 1-8.
- 周钧, & 公辰. (2016). 培养反思-探究型教师: 芬兰研究取向教师教育探析. *比较教育研究*, (11), 34-39.
- 张晓光. (2016). 研究取向的中小学教师职前教育探析——以芬兰为例. *教育研究*, 37(10), 143-149.
- 中华人民共和国国务院新闻办公室. (2016). 中国学生发展核心素养.

## APPENDICES

## Appendix 1

## Distribution of lesson hours in Espoo basic education 2016

Hyväksytty Espoon kaupungin opetus- ja varhaiskasvatuslautakunnassa 25.2.2015 § 15

Espoon suomenkielisen opetuksen tuntijako 1.8.2016 alkaen											
Peruskoulut											
Valtakunnan tuntijako											
Kertymä Espoossa											
Voidaan opettaa, jos opetus suunnitelmassa niin määrätään xxxxx											
Vuosisuorat	1	2	3	4	5	6	7	8	9	yht.	
Aidinkieli ja kirjallisuus(VN)	14					18		10			42
Aidinkieli ja kirjallisuus	7	7	5	5	4	4	3	4	3	42	
A1-kieli (VN)	xxxxxx	xxxxxx				9		7			16
A-kieli	xxxxxx	xxxxxx	3	2	2	2	2	2	3	16	
B1-kieli (VN)	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	2		4			6
B-kieli	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	2	1	1	2	6	
Matematiikka (VN)	6					15		11			32
Matematiikka	3	3	4	4	4	3	3	4	4	32	
Ympäristöoppi (VN)	4					10					14
Ympäristöoppi	2	2	3	2	3	2				14	
Biologia ja maantieto (VN)								7			7
Biologia ja maantieto								2	3	2	7
Fysiikka ja kemia (VN)								7			7
Fysiikka ja kemia								2	3	2	7
Terveystieto (VN)								3			3
Terveystieto								0,5*	1,5**	1***	3
Uskonto/Elämäntutkimus (VN)	2					5		3			10
Uskonto/Elämäntutkimus-tieto	1	1	1	1	1	2	1	1	1	10	
Historia ja yhteiskuntaoppi (VN)	xxxxxx	xxxxxx	xxxxxx				5		7		12
Historia ja yhteiskuntaoppi	xxxxxx	xxxxxx	xxxxxx	1	2	2	2	2	3	12	
Musiikki (VN)	2					4		2			8
Musiikki	1	1	1	1	1	1	2	0	0	8	
Kuvataide (VN)	2					5		2			9
Kuvataide	1	1	1	2	1	1	2	0	0	9	
Käsityö (VN)	4					5		2			11
Käsityö	2	2	1	2	1	1	2	0	0	11	
Liikunta (VN)	4					9		7			20
Liikunta	2	2	2	2	3	2	2	2	3	20	
Kotitalous (VN)	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx				3	3
Kotitalous	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	3	0	0	3	
Taide- ja taitoaineiden valinnaiset (VN)						6		5			11
Taide- ja taitoaineiden valinnaiset	0	0	1	1	2	2	0	2	3	11	
Taide- ja taitoaineet yhteensä (VN)						41		21			62
Taide- ja taitoaineet yhteensä						41		21			62
Oppilaanohjaus (VN)	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx				2	2
Oppilaanohjaus	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0,5*	0,5**	1***	2	
Valinnaiset aineet (VN)						9		9			9
Valinnaiset aineet	0	0	0	1	1	1	1	3	2	9	
Oppilaan vähimmäistuntimäärä (VN)	19	19	22	24	25	25	29	29	30	222	
Oppilaan vähimmäistuntimäärä	19	19	22	24	25	25	29	29	30	222	
(A2-kieli vapaaehtoinen)	xxxxxx	xxxxxx						(12)			(12)
(A2-kieli vapaaehtoinen)	xxxxxx	xxxxxx						(12)			(12)
(B2-kieli vapaaehtoinen)	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx				(4)	(4)
(B2-kieli vapaaehtoinen)	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	0	2	2	(4)	
* yhteensä 1 vvt      ** yhteensä 2 vvt      *** yhteensä 2 vvt											
Espoo-tunnit	1	1	1							3	
VN:n mahdolliset lisätunnit								1	1	1	3
Ylin mahdollinen kokonaistuntimäärä	20	20	23	24/26	25/27	25/27	29/31(31)	29(30)	30(31)	225/233 -235	

## Appendix 2

### The View of my Father's Back

Zhu Ziqing

It has been over two years since I last saw my father. It is the view of his back that is most unforgettable to me.

That winter was a double tragedy for us as grandmother passed away and father was dismissed from his position. I left Beijing for Xuzhou to meet up with my father to go back home for the funeral. In Xuzhou, when I saw my father, and a total mess of disorderly placed items in his yard, memories of grandma came flooding back, and my tears poured down out of control.

Father said, "Things which happen cannot be changed. Don't be so sad. There is always a way out."

Back home, by pawning and selling possessions, father paid off the debts and borrowed more money for the funeral. Those were gloomy days for the family, partly because of the funeral, and partly because father was now unemployed.

After the funeral, my father headed for Nanjing to seek a job and I went to Beijing to finish my study. Therefore, we traveled together for a while.

In Nanjing, a friend showed me around for a day. And the next morning, I was supposed to ferry to Pukou and take the train north that afternoon to Beijing. Father was busy and had decided not to see me off. Instead he asked a waiter who was an acquaintance, to accompany me. He repeatedly instructed the waiter on how to take care of me. Nevertheless, he still felt unsure, worrying that the waiter was not reliable, and reconsidered what to do for a while. Actually, I was already 20 years old then and had been traveling to and from Beijing several times on my own already. There was nothing really to worry about. He thought for a while, and finally decided to see me off himself. I tried several times to persuade him not to, but he only said: "It is fine. I don't trust him with you."

We crossed the river and entered the station where I bought the ticket while he took care of the baggage. As there were so many pieces of luggage, we had to give some tips to the porter in order to enter. Father busied himself bargaining with the porters. Back then, I was quite the smart aleck, thinking he wasn't a good negotiator, and had to restrain myself from butting in. Eventually, he finished the bargaining and took me onto the train. He picked a seat by the door, and I spread on the seat the expensive fur lined coat that he had made especially for me. He urged me to take care of myself and not to get cold at night. Then he asked the attendants to take care of me. I laughed at his silliness in my heart because those people cared only for money, and it was useless to ask a favor from them. Besides, am I not old enough to take care of myself? Ai, in retrospect, I was really a smart aleck back then!

I said: "Father, you can go."

He took a look out of the window, and said: "Let me buy some tangerines for you. You stay here. Don't move."

I saw that beyond the railings on the other side of the platform, there were a couple of vendors waiting for customers. To get to the other side, however, one must jump down and climb up to get to that side of the railway. Father was rather fat and it was no small feat for him to get there. I wanted to go, but he wouldn't allow me. so I had no choice but to let him go. I saw him with a black cap on his head, in a black jacket and a dark blue turquoise cotton padded robe, stumble to the railway and slowly make his way down, which wasn't too difficult. But after he crossed the railway and tried to climb up onto the platform on the other side, it was not easy. His hands clung to the top, legs contracted up, his overweight body tilted to the left, as he painstakingly pulled himself up. Looking at his back, my tears flowed. I rushed to wipe away the tears, afraid of being seen by him, or by any others.

When I looked out again, he was already on his way back, carrying the tangerines. At the railway, he placed the tangerines gently on the ground, slowly climbed down, then picked them up and moved on. When he got back, I rushed to help him. As he and I got back onto the train, he placed all the tangerines on my fur coat, patted the dirt off his jacket, and looked very satisfied. After a moment, he said to me: "I am leaving now. Remember to write to me!" I watched him get off the train. After a few steps, he turned back and saw me, saying "Go back. Your things are unattended." I waited until he disappeared into the bustling crowd, and went back in and sat down.

My tears came again.

In recent years, my father and I led separate lives due to our need to travel separate ways to make a living. The family financial situation deteriorated day by day. When my father was young, he left his home to make his living. He had many admirable accomplishments by his own efforts. Who would have guessed that he would turn out a failure in his old age. It is no surprise that as he looks back on his life, he feels sad and disappointed that life has not been kind to him. Due to these circumstances, his feelings made him very temperamental and he vented his anger over even trivialities at home. He also treated me differently. But after 2 years of separation, he forgot all my failings that angered him and showed more interest in me and my son. After I settled in the north, he wrote a letter to me stating that: "I am okay but my shoulder hurts very badly, the pain causes me difficulties in using chopsticks or even lifting my writing brush. I think the end of my life is not too distant."

As I read this, through my glistening eyes, I again see my father's heavy back in that dark blue turquoise robe. Ai, I wonder when shall I meet him again.