The Eurasia Proceedings of
Educational & Social Sciences (EPESS)
ISSN: 2587-1730

The Eurasia Proceedings of Educational & Social Sciences (EPESS), 2020

Volume 16, Pages 38-49

ICEMST 2020: International Conference on Education in Mathematics, Science and Technology

The First Model of Family Education on the Delivery of Bilingual British NCC Digital Literacy Qualifications in Dalian, China – Engaging and Motivating Children

Ying WANG
Tulip Community Academy

Xuemei LIU
Tulip Community Academy

Yingdi ZHANG
Tulip Community Academy

Xiaohua SANG
Tulip Community Academy

Mengjie WANG
Tulip Community Academy

Ying LIU
China's Education Ministry

Abstract: It is well known that economic change in China has been both huge and rapid. Emerging children's education in technology has seen a significant challenge. As parents become more involved and busier with their work matters, their children run the risk of either being neglected to a degree of pressure that is applied on them to do better in exams, so as to "climb the social ladder" more easily. How to motivate children in technology education is an even more critical challenge. Having synthesised the relevant theories that underpin the Family Education Model, this paper reports Tulip Community Academy (China) as a social service organisation; shares its successful experience on how to undertake social responsibility to support children education in digital literacy, as well as illustrates the model using various cases including the one on how to understand data and data analysis. Tulip regulated its organisation and then achieved the accreditation awarded by British NCC Education Digi Programmes as a partner centre. The innovation began with the digital literacy delivery for 5-9 years old as well as their parents. Some of their parents are mothers who used to be teachers but have not been back to work since their childcare commitments; some are fathers who work in IT/Software industries. Tulip Family Education model consists of macro teaching technologies, whilst the micro teaching enabling better communicating to children.

Keywords: Children education, Digital literacy, Social community, ICT, Motivation

Introduction

As a social service organisation, Tulip shares the successful experience on how to undertake the social responsibility to engage and motivate children to learn by a new model of Family Education. Tulip regulated its organisation and then achieved the accreditation awarded by British NCC Education Digi Programmes (www.nccedu.com) as a partner centre based in Dalian City, China. The innovation began with the digital literacy delivery for 5-9 years old together with their parents. Some of their parents are mothers who used to be

- This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

- Selection and peer-review under responsibility of the Organizing Committee of the Conference

© 2020 Published by ISRES Publishing: www.isres.org

teachers but have not been back to work since their childcare commitments; some are fathers who work in IT/Software industries.

However, we also encounter some disadvantages of China's Family Education. It is well known that China has undertaken an enormous scale of change at astonishing speed and from many aspects. Amongst many, and sometimes challenging problems that education reform encounters (Chao, 1994; Barajas, 2011; Zhang et al, 2017; Li & Hein, 2019) is the increasing and wide spread commercialism which has been heavily influencing the national education policies, as well as overall school pedagogies and management. The model reported here tackles two such issues:

1) There are still many school traditional normative assessment systems, where the aim of teaching and learning practices are only to get children prepared to undertake the national school admission exams. This has led to flourishing commercial classes of tutorials out of schools paid by the parents (Wu, 2013 in Chinese; Zhang, 2019 in Chinese, Zhu, 2019). The expectations of parents for their children and their financial affordability to the classes drive such commercial development. Children's own interests and motivations in learning needs are, by and large, underdeveloped or even neglected (Zhou et al, 2008).
2) The relationships between schools and parents have become more complex, because the tutorial class out of school should play as a partner to facilitate the engagement with children, parents and schools (, rather than a mere medium connection that parents expect from the commercial market. In respect of digital literacy education, the national curriculums of digital literacy have not been fully developed. Whilst a massive scale of commercial courses led by AI robots coding is on sale, both schools and parents have already taken a commercial stake. All this is causing a great amount of anxiety - Parents only expect and believe what technical coding skills as sold by the commercial classes; they have been unable to realise how digital literacy will impact their children's future from many ways.

Tulip's research question is:

> How to develop a family education pedagogy engaging and motivating children between 5-9 years old in learning digital literacy?"

Method

To answer the question, Tulip has formulated a system approach to conduct a multi-method of research and development mapping the sub questions. A system approach is a way to identifying the most relevancies regarding the goal needed to be achieved; then concentrate on the relevant problem domains as a whole, rather than just studying each individual domain in isolation, i.e., "the whole is greater than the sum of its parts", so to say. The following section of literature review differentiates the problem domains that are largely associated with the use of multiple methods to enable us to investigate complex subject matter and, above all, to establish our model. As stated in (Lavrakas & Roller, 2015, p. 89)

> "Multi-method research enables the qualitative researcher to study relatively complex entities or phenomena in a way that is holistic and retains meaning. The purpose is to tackle the research objective from all the methodological sides. Rather than pigeonholing the research into a series of focus groups, or observations, the multi-method approach frees the researcher into total immersion with the subject matter."

The following section reviews the relevant literature, where we include the following problem domains and raise the rest of sub questions:

1) Action Based Research to innovate a model engaging and sustaining stakeholders, as well as Tulip' s development towards itself being a Learning Organisation.
2) Learning Centred Pedagogy to implement the curriculum, engage and motivate children.
3) Family Education and Parenting to innovate and facilitate the pedagogy.
4) Project Reflected Method to develop and sustain teacher training and other teaching resources.

Literature Review

There has been increasing research and development on social welfare agencies focusing on evidence-based interventions to help improve parenting skills; many such programmes are also developed consistently with family and client values (NASEM, 2016; CWIG, 2019). Whilst an enormous amount of literature exists in research areas of social services facilitating children's education, there is also much work found in the subject of parenting – its role in education, child wellbeing development, social policies, its relationships with schools, and its own education (e.g., Alkahtani, 2016; Daily et al, 2018). Family education generally refers to the process that parents and their adults in the family have the responsibility to educate their younger children (Liggett-Creel et al, 2017).

.

Over several thousand years, China's Family Education has laid the good foundation for receiving kindergarten and school education; it is still widely believed that good family education is the catalyst to optimise children's mind; the family is the cell of the society (Sun & Huang, 2019). China's Family Education has helped in stabilizing society. We believe that we need to further enhance and sustain all the advantages of China's Family Education (Huang & Gove, 2012).

In particular, the overall exam orientated environment has driving learners to overburden their studies to prepare exams. The government has indeed realised this, i.e., such study suppresses the interest and personality of the children, limits their imagination and creativity and can even damage their physical and mental health (Zhou & Zhou, 2019). But the situation has not changed. Commercial tutorial classes are overwhelming, suggesting parents pay for their children to attend in order to get better exam outcomes (Liu, 2019 in Chinese). Parents must be guided, so as to perceive the various human value aspects of digital literacy education; so must many others who live in an environment where the distribution of educational resources is unreasonable; they cannot afford the cost of such after school classes. We agree with what Cara & Brooks (2012, p. 4) pointed that

> "[the] base for the wider benefits to parents of participating in family learning is thin … Most of the evidence came from studies of family literacy, with less from family language or numeracy, and hardly any from wider family learning. The range of benefits mentioned was multifarious, with very few covered in more than a handful of studies, even within the prior empirical work covered by the reviews."

In respect of the rapid economic development, we need to view Parenting Role in contexts of schools, learning and training centres in the commercial market; therefore, parents and their children are also viewed as stakeholders; many of these stakeholders have been surrounded by the emerging commercial environment (see the similar research: Lloyd et al, 2017). We raise the first research sub-question:

> How to enable the stakeholders to commonly focus on the human value aspect of digital literacy education v.s. what can be technically sold to the parents?

Action research method is applied. Action research is also known as Participatory Action Research (PAR), community-based study, co-operative enquiry, action science and action learning, to serve our purpose for improving the stakeholders' communications and participations from a range of different backgrounds in our digital literacy education (Constantinou & Ainscow, 2020). We adopt Action research to conduct systematic enquiries in order to improve the stakeholders' own practices, which, in turn to enable them to enhance their teaching and learning environment. We then develop a model to provide practical solutions, implementations, so as to empower stakeholders.

The human value aspects of digital literacy include skills for using, understanding and innovating digital technologies, as well as capabilities in managing ethics and empath, privacy and security, community engagement, digital health, consumer awareness, finding and verifying information, making and remixing digital content. Enabling the stakeholders to commonly focus on the human value requires, in theory, the processes of pre- and perinatal (PPN) parenting education which has been defined as "the knowledge, skills, and instructions provided to parents on how they can most effectively contribute to a problem's and later child's ... development" (Mckee et al, 2018).

Although stakeholders are perceiving the value of digital literacy education, learning from foreign advanced teaching concepts of digital literacy, is a great contrast from the current Chinese teaching concepts in particular. Here we need to address this further from two viewpoints.

Firstly, China's Family Education has its great advantages that we feel need to be enhanced and sustained. Family education generally refers to the process that parents and their adults in the family have the responsibility to educate their younger children. Therefore, China's Family Education is the starting point of educating people. Its educational goal should be to ensure the healthy development of children's body and mind before they enter the society to receive collective education (kindergarten, school education). Good family education is the catalyst to optimise children's mind. That is, the social activities that parents consciously influence their children through their own words, deeds and family life practices. Over the years, this had laid such foundation and has helped in stabilising society. However, China's Family Education is not in isolation. Here comes to the second viewpoint.

Secondly, parent are the stakeholders in school education and social education. Speaking of Chinese Family Education, most people will come up with that kind of rigid, mechanical teaching picture. When they talk about foreign education, what they think of is a relaxed, free, vivid and interesting picture.

Tulip has developed the method to establish an agreed basis for such education to be carried out, which will be presented in the next section. However, before introducing Family Education as a model to engage and motivate children, we need to raise the second research sub-question.

> How to transform the parent's mindset from China's traditional teacher led classroom view to advanced view of learning centred pedagogy?

Parenting pedagogy constitutes several research programmes for the 21st century on the topic of so called Pre- and Perinatal (PPN) parenting training, which has been defined as a teaching method by which "the knowledge, skills, and instructions are provided to parents on how they can most effectively achieve their role as parents" (Ponzetti, 2016). This includes "ways to positively contribute to a pre-born' and later child's emotional, cognitive, social, and physical development" (Ponzetti, 2016; also see McKee et al, 2018 formulated a historical overview of PPN parenting pedagogy dating from the 1300s to early 2000s).

It can be concluded, so far, that the most up to date parenting pedagogical models or programmes, e.g., the use of the National Extension Parenting Education Model (NEPEM) (DeBord, 2016), all appear to incorporate content areas of specific parenting skills; skills of care for self, guidance to understand, nurture, motivate, and advocate something, see: Collins, 2012) are still ongoing being taught by qualified parenting educators.

The current research of Tulip's team has identified:

1) There is a significant overlapped area between Tulip's expertise and empirical practices and the parenting post-birth and beyond reported in literature.
2) There is a timely and critical need for transforming parenting mindset into educational settings associating with curriculums, not just limiting the research to a framework level aligning with evolving theories.

We need to broaden such approaches to meet stakeholders' changing needs, e.g., engaging and motivating children in learning digital literacy, before any of the "best" practices can be carried out. Therefore, we have been approaching learning by applying Learning Centred or Student Participatory methodology to construct the pedagogy. In the west, a variety of constructivist and student-centred learning approaches have been widely implemented at the classroom and general social service level. On this dimension of our research, we are aiming to

1) Investigate learners in the holistic and meaningful activities that are interesting to them.
2) Follow the digital literacy curriculum.
3) Assess the learners' needs, questions, experiences and reflections.
4) Develop Scheme of Work.
5) Use Project Reflected Method to develop and sustain teacher training and other teaching resources
6) Provide or improve learning opportunities for learners.

Results and Discussion

Tulip has undertaken a system approach to enable us to use multi-methodology including Action Based Method to tackle various issues.

Re-orientate parent's own expectations

This is on the ethical dimension of the model to re-orientate the stakeholders commonly concerned with the so called human value aspect of education, i.e., the mission of education in development of human wellbeing in the spirit of love and social community (Miovska-Spaseva, 2013). Miovska-Spaseva re-opened in the complex role of education with the pedagogical ideas of Maria Montessori, as well as her concept of education for peace as an instrument for reconstruction of the society and for improvement of human living. As discussed already, due to fact that contemporary society is distracting the education by the economic or consuming value, we found that we need to re-orientate the stakeholders before developing any suitable pedagogy.

Most of the parents in today's society look forward to their children achieving great things, which is also true in a typical family education within China. Aiming to obtain high exam scores has almost become the pillar of a child's family; parents' joys and sorrows are almost related to their children's test scores and enrollment. Many parents invite "tutors" and buy reference books for their children. Parents are even willing to suffer and suffer, with only one objective for their lives - all for their children, all for their children's learning and all for their children's scores.

There is another significant reason to re-orientate parent's expectations. Because of China's historical reasons, parents often put all kinds of "regrets" in the growing up process on their children with the best "hope". This means they have high expectations of their children's "success". There is nothing more concerning regarding children than their examination grades. Many parents think that as long as their children can get high marks, they will be successful. In addition to instructing the children to do exams well, they also accompany the children to participate in after school classes in their spare time, such as composition class, calligraphy class, English class, art class, and/or music class.

Tulip has developed the re-orientation programmes to establish its centres across the country. Participative parents are interested in incubating a business as a value added service to children's education such as after school care centre, tutorial centre, nutrition, health and physical training advisory centre, children's club, to

name but few. Training "Seeding Members" with the qualification of Tulip's ethics. Seeding Members organise their group online meetings regularly via WeChat (a type of social media).

The basis for common interest shared among parents and their children has been established for the following reasons:

1) The social media groups themselves form the markets that are interesting to parents.
2) Many problems arising from the exam-driven education background are explained in cause-effective manors and shared within the group. So are the many learned lessons and problem-solving experience shared as well.
3) Guidelines for what and how can be done are clearly outlined. Parents have been following the guidelines and supervised by Seeding Members in order to carry out such professional practices.

Enabling the stakeholders to commonly focus on the human value aspect of digital literacy education v.s. what can be technically sold to the parents

On this dimension, an action based research has been undertaken to

1) Innovating a bilingual computing education with British Ofqual regulated NCC Digi qualifications for children between 5 to 9 years old.
2) Re-orientating stakeholders' learner centred pedagogy to engage with parents.
3) Involving parents in teaching and learning to engage and motivate children.

Thus, the engagement can motivate learning from three aspects:

1) Digital Literacy.
2) Linking STEAM (Science, Technology, Engineering, Arts, Mathematics) education.
3) Teaching in class involving parents as an effective extension to cross family children communication.

We refer "Digital Literacy" as (Eshet, 2004, p.2)

> "Digital literacy involves more than the mere ability to use software or operate a digital device; it includes a large variety of complex cognitive, motor, sociological, and emotional skills, which users need in order to function effectively in digital environments. The tasks required in this context include, for example, "reading" instructions from graphical displays in user interfaces; using digital reproduction to create new, meaningful materials from existing ones; constructing knowledge from a non-linear, hypertextual navigation; evaluating the quality and validity of information; and have a mature and realistic understanding of the "rules" that prevail in the cyberspace."

NCC Education, originally a division of the National Computing Centre, was first established as an IT initiative by the British Government in 1966. NCC Education started offering IT qualifications in 1976 and from 1997 developed its higher education portfolio to include Business, English language and Foundation level qualifications. In 1997, NCC Education was incorporated as an awarding body of British qualifications. We established our NCC centre at Dalian City (China) delivering Digi qualification programmes. Digi is a suite of primary and secondary school Computing programmes developed by NCC Education and launched in 2017. Our mission with Digi is to assist schools in their delivery of the English National Computing Curriculum at Key Stages 1-4.

Tulip's Seeding Members have applied the following key approach to re-orientate parents on the human value aspect of education in digital literacy.

1) Tulip's Seeding Members organise online seminars to share the emerging problems and challenges that parents have encountered under the current examination result driven education approach. The problems drive parents to realise the causes of such problems, what and why the current education systems cannot solve these problems, and therefore, by and large, limit the child development. After taking part in extra-curricular counseling, there are problems in the emotional communication between parents and children. When parents only expect their children to succeed in examinations, parents think that it is the best choice for children to go to after school's tutoring classes. Children have little spare time. Parents and students spend less time together, and therefore lack emotional communication between them. If parents don't know their children's behavior and habits, it is not conducive to assisting the teaching of teachers in school.
2) Bilingual NCC Digi curriculum can used as a tool symbolically illustrate what a modern education "looks like". Introducing a good international brand in education can indeed break the ice in the communication among stakeholders. Many institutions and after school tutorial classes also collaborate with international education curriculums. However, most of these collaborators appear to attract the elite groups aiming to enable learners to study abroad.
3) The NCC curriculum can also be used as a tool to re-orientate parents from the so called "mastery motivation" to "intrinsic motivation" which is based on "children's intrinsic tendency to interact with the environment and to continually adapt to it", because of the curriculum's different education cultural and education system background.

Transforming the parent's mindset from China's traditional teacher led classroom view to advanced view of learning centred pedagogy

After re-orientating stakeholders on the human value aspect of digital literacy, the teaching team developed bilingual Scheme of Work to design the learner centred pedagogy. We refer the term pedagogy as a range of methods such as inquiry-based, problem-based, activity-based and learning that are used to organise a class, as well as deliver a curriculum and instruct teaching. Such pedagogy is widely adopted internationally as one of the 'best practice' pedagogies.

Tulip developed the pedagogy by six elements:

1) A standard of Scheme of Work.
2) A class consists of Macro and Micro Teaching. Macro teaching manages and controls teaching underlined by digital literacy knowledge, technological notions, comprehensive uses of technologies, general practical and systematic operation procedures. Micro teaching supports learners' English learning, digital tool based practices, facilitates learners' cognitive processes and individual learning processes.
3) Scenario and picturesque enabled tools in bilingual such as word cards, digital games, activity games, quiz, videos, etc.
4) Class appraisal system.

5) Learners' class folder to enable learners to follow what need to be done on the class and what is on the next class.
6) End class feedback from the parents.

Interesting and Motivating Cases

Case A： Introducing the Concept of Data

The main objective was to enable children to have some ideas about Primary and Secondary Data based on the NCC Education syllabus. We see this as a greater challenge on:

1) it isn't something that the China's Education and Culture system would teach conventionally at a young age;
2) it is, however, an essential step to enable children to engage with data and begin to "see" data that could provide interesting information from many ways.

In addition, teaching the concepts are complex and the learning is usually very dry and boring. Tulip's model engaged children and parents with activities - assigning them to undertake a small social questionnaire research to obtain primary data. Having understood the concept of Primary Data that they collected by themselves, they were asked to consider: what happened if they need to interview many, many people? Or what would they do if they need to collect a lot more data in real time? Children and parents then bring their collected data to the class, and then use WeChat (a type of social media in China) to send the data to the teacher. The teacher then uses an Excel sheet allowing all the data collected from all the parties – this is plotted into graphs and charts. Once the collected data has been reported by individuals to the rest of the class, the teacher asks other questions - such as 'What would be the effect if a large number of people were interviewed?, or the data collected in real time?'

Case B： Stimulating Children's Interests in Digital Technology Applied to Arts

This is also the first computing course of Tulip innovation, connecting with the STEAM education concerned worldwide. STEAM is the abbreviation of the first letter of the following interdisciplinary fields in Science, Technology, Engineering, Arts, Mathematics. The main purpose of the Tulip's project is not limiting children to participate in skill based competition in the future, but to broaden views and stimulate curiosities to Computing and Arts, Culture and Social Applications, e.g., we shall show the videos: digital virtual reproduction of world music heritage at the University of Central Lancashire, 2019; bilingual Italy returns to Chinese cultural heritage, 2019; and Jiangxi Museum 3D virtual exhibition, 2019.

Case C：Project of Social Community Digital Presentation - My Daily Life

Tulip bilingual 5-9-year-old family education computing course will enable children to design digital media reflecting "community digital presentation - my daily life". At present, we have begun to experience the features and forms of digital information presentations, including bilingual annotation, text, color, video, film production, animation, background sound, life music, etc.

The purpose of this project is to develop a joint digital technology project with an international counterpart. Project participants are pupils from schools, learning centres or social communities, where they have been learning digital technology in the areas of Animation, Filming, Comic, Digital Image and/or Sound Recording. Tulip's teaching centre is based in Dalian City where the programme is delivered by a unique family education approach including pupils and their mothers or fathers. Hence, to the extent of any safety concern, the project is carried out in a secure environment, because the mothers and fathers are not only our students to participate, but together with our teachers, supervise pupils in the project.

We would set up a common criteria and assessment method for the project, so as to carry out the project as a kind of formative assessment of their study programme similar to Tulip's NCC Digital Qualification on Explorer Level. As an example, the multimedia would have to include Animation, Filming, Comic, Digital Image and Sound Recording, as well as English subtitles.

The collaboration and communication of the project would be carried out online. In addition to encouraging exchanging technical and problem-solving skills during the project development processes. Each group must exchange their multimedia presentation and integrate the two presentations together towards a "comparative and narrative" story.

Conclusion

We have reported our family education model as an effective pedagogy engaging children and parents with digital literacy education. The outcomes of this development, so far, are overwhelming from the following three aspects.

Firstly, the pedagogical engagement is not just giving to learners, but it also demands, from them, a relatively high level of communication and interaction in a class. The pedagogy must have the capacity to re-orientate the stakeholders, actively control over the curriculum, delivery content, process of learning, as well as what is learnt, and how. All this therefore must be based on the common interest of human value aspect of education, and then possibly shaped by learners' needs, capacities and interests.

Secondly, Tulip has undertaken a system approach to adopt multi-methodologies to develop the model. Parents, schools and current after school commercial tutorial classes are stakeholders who do not have the capacities of reforming the education systems quickly enough for modern requirements. As a social service organisation, Tulip shares these successful experiences on how to undertake the social responsibility to support these children by a new model of Family Education. Tulip used system approach to identify the key problems domains in action-based method, parenting education, and learner centered pedagogy. Using an action-based method, Tulip developed Seeding Member leaderships to re-orientate parents back to the human value of education.

Thirdly, Tulip is using learner centred pedagogy and standard of Scheme of Work to stimulate or motivate the learning needs, foster the teaching methods, teaching and learning tools, as well as learning projects to actively manage and control the learning processes. Tulip has further developed the Learner-centered pedagogy from

constructivist views, where the most critical task is to innovate an environment that is conducive to children's learning. Tulip regulated its organisation and then achieved the accreditation awarded by British NCC Education Digi Programmes as a partner centre. Some of their parents are mothers who used to be teachers but have not been back to work since their childcare commitments; some are fathers who work in IT/Software industries. The teaching practices are underlined by macro and micro teaching providing synergies between complex processes. Tulip Family Education model consists of macro teaching through the fathers to support teaching technologies, while the micro teaching by the mothers enabling better communication with children. The model has enabled children to

- have a earning space where they learning by doing their own activities
- have different activities available in the parenting environment
- learn from direct experiences from teachers and parents
- learn from practical experiences
- learn from explorative experiences
- learn through physically active experiences
- engage with different learning areas/activities
- learn while be indoors and outdoors.
- have parents extend children thinking by asking open (rather than closed) questions
- have parents encouraging children
- have parents monitor children's progress
- have collaborative and teach based learning opportunities

Acknowledgements or Notes

Many Tulip community members have supported the development of the model overwhelmingly. Special thanks to Mr Xun Yan and Mr Hui Liu who supported the IT system and software set up at the initial stage.

References

Alkahtani, M. A. (2016) Review of the Literature on Children with Special Educational Needs, *Journal of Education and Practice*, 7-35

Avvisati, F., Besbas, B. & Guyon, N. (2010). Parental Involvement in School: A Literature Review. *Revue d'économie politique*, l-120(5):759-778

Barajas, M. S. (2011) Academic Achievement of Children in Single Parent Homes: A Critical Review, T*he Hilltop Review:* 5(1), Article 4. http://scholarworks.wmich.edu/hilltopreview/vol5/iss1/4

Bilingual Italy returns to Chinese cultural heritage (2019) https://webapp.vizen.cn/backhome/index.html

Cara, O & Brooks, G. (2012) Evidence of the Wider Benefits of Family Learning: A Scoping Review, *BIS RESEARCH PAPER NUMBER* 93, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/34666/12-1238-evidence-benefits-of-family-learning-scoping.pdf

Chao, R. (1994) Beyond Parental Control and Authoritarian Parenting Style: Understanding Chinese parenting through the cultural notion of training, *Child Development* 45: 1111-1119.

Collins, C. L. (2012) A Review and Critique of 16 Major Parent Education Programs, *Journal of Extension*, August

Constantinou, E. & Ainscow, M. (2020) Using Collaborative Action Research to Achieve School-led Change within a Centralised Education System: Perspectives from the inside, *Educational Action Research*, 28(1):4-21

CWIG (2019) Child Welfare Information Gateway: *Parent education to strengthen families and reduce the risk of maltreatment*. Washington, DC: U.S. Department of Health and Human Services, Children's Bureau.

Daily, S., Douglass, A., Halle, T., Agosti, T., Partika, A. & Doyle, S. (2018) Culture of Continuous Learning Project: A Literature Review of the Breakthrough Series Collaborative (BSC) https://www.acf.hhs.gov/sites/default/files/opre/ccl_literature_review_03082018_508_compliant_508.pdf

Desforges, C. & Abouchaar, A. (2003) The Impact of Parental Involvement, Parental Support and Family Education on Pupil Achievements and Adjustment: A Literature Review https://www.nationalnumeracy.org.uk/sites/default/files/the_impact_of_parental_involvement.pdf

Eshet, Y. (2004) A Conceptual Framework for Survival Skills in the Digital Era, *International Journal of Educational Multimedia and Hypermedia* (2004) 13(1),93-106

Feldman, A. (2020) On behalf of the Editors: Insiders and Outsiders – The Place of Second-order Action Research in Educational Action Research, *Educational Action Research*, 28:1, 1-3

Huang, G. H-C. & Gove, M. (2012) Confucianism and Chinese Families: Values and Practices in Education, *International Journal of Humanities and Social Science*, 2 (3), February

Jiangxi Museum 3D virtual exhibition (2019) http://www.jxmuseum.cn/xnbz/html/xnbz.html

Lavrakas, P. J. & Roller, M. R. (2015) *Applied Qualitative Research Design: A Total Quality Framework Approach*, The Guilford Press

Li, N. & Hein, S. (2019) Parenting, Autonomy in Learning, and Development During Adolescence in China. *New Child Adolesc Dev.* (163):67-80

Liggett-Creel, K., Barth, R. P., Mayden, B., & Pitts, B. E. (2017) The Parent University Program: Factors Predicting Change in Responsive Parenting Behaviors. *Children and Youth Services Review, 81*, 10–20. doi: 10.1016/j.childyouth.2017.07.017

Liu，Y-T. (2019) 刘玥彤 (2019) 家长送幼儿参加兴趣班的心理分析与建议,《黑龙江教育学院学报》2019年第10期

Lloyd, J., McHugh, C., Minton, J. *et al* (2017) The impact of active stakeholder involvement on recruitment, retention and engagement of schools, children and their families in the cluster randomised controlled trial of the Healthy Lifestyles Programme (HeLP): a school-based intervention to prevent obesity. *Trials* 18, 378. https://doi.org/10.1186/s13063-017-2122-1

Mckee, C., Stapleton, P. & Pidgeon, A. (2018) History of Pre and Perinatal (PPN) Parenting Education A literature review, Journal of Prenatal & Perinatal Psychology & Health, 32(3) · March

Miovska-Spaseva, S. (2013) Development of Primary Teacher Schooling in Macedonia (1869-1963)： Roots and fruits of a century-long tradition. *History of Education and Children's Literature, 8*(1), 129-146.

NASEM (2016) National Academies of Science, Engineering, and Medicine: *Parenting matters: Supporting parents of children ages 0–8*. Retrieved from https://www.nap. edu/catalog/21868/ parenting-matters-supporting-parents-of-children- ages-0-8

Ponzetti, J. J. (2016) Evidence-based Parenting Education: A global perspective. In J. J. Ponzetti (Ed.), *Overview and History of Parenting Education* (pp. 3-11). New York, NY: Routledge.

Sun, X.G. and Huang, A.L. (2019) Analysis of Chinese Family Education Investment and Its Demographic Variables. *Open Journal of Social Sciences*, 7, 15-35.

University of Central Lancashire (2019) https://www.globalsoundmovement.com/;

Wu, C-H. (2013) 吴翠华（2013）让学生的兴趣成为学习的动力，考试周刊 第101期

Zhang, W., Wei, X., Ji, L. *et al.* (2017) Reconsidering Parenting in Chinese Culture: Subtypes, Stability, and Change of Maternal Parenting Style During Early Adolescence. *J Youth Adolescence* 46, 1117–1136 (2017).

Zhang, Y-Q.（2019） 张一奇 （2019）给娃报班是家长圈的流行病 把教育焦虑传导给了孩子，人民日报海外版 12月16日http://www.chinanews.com/sh/2019/12-16/9034571.shtml

Zhou, G. & Zhou, X. (2019) *Education Policy and Reform in China*, China Renmin University Press.

Zhou, Q., Wang, Y., Deng, X., Eisenberg, N., Wolcnik, S. A. & Tein, J. (2008) Relations of Parenting and Temperament to Chinese Children's Experience of Negative Life Events, Coping Efficacy, and Externalizing Problems, *Child Development*, 79(3):493-513

Zhu, J. (2019) Early Childhood Education and Relative Policies in China, *International Journal of Child Care and Education Policy*, 3:51-60.

Author Information

Ying Wang
Tulip Community Room 101, Unit 1,
Building #39, XinhaiRejia, Fuguo Street,
Shahekou District,Dalian City, 116000,
Liaoning Province,China

Xuemei Liu
Tulip Community Room 101, Unit 1,
Building #39, XinhaiRejia, Fuguo Street,
Shahekou District,Dalian City, 116000,
Liaoning Province,China

Yingdi Zhang
Tulip Community Room 101, Unit 1,
Building #39, XinhaiRejia, Fuguo Street,
Shahekou District,Dalian City, 116000,
Liaoning Province,China

Xiaohua Sang
Tulip Community Room 101, Unit 1,
Building #39, XinhaiRejia, Fuguo Street,
Shahekou District,Dalian City, 116000,
Liaoning Province,China

Mengjie Wang
Tulip Community Room 101, Unit 1,
Building #39, XinhaiRejia, Fuguo Street,
Shahekou District,Dalian City, 116000,
Liaoning Province,China

Ying Liu
Advisor of International Project, Dept of Schooling Planning and Development,
China's Education Ministry,
China
Contact E-mail: *ying30s@yahoo.co.uk*