

Investigate Chinese Immigrant Parent's Perceptions of Their Children's Literacy and Numeracy Acquisition and Development in Australia

Yumo Ding^{1, a}

¹Eastern Liaoning University, Liaoning 118000, China

^azixuan_ding@yahoo.com

Abstract: Literacy and numeracy are the fundamental elements that need to be developed in early childhood to enhance children's skills and future personal attainment. This research study focuses on investigating how Chinese immigrant parents think of conducting literacy and numeracy learning in early childhood as well as what they would like to do to promote their children's early literacy and numeracy acquisition and development. The findings present that Chinese traditional Confucianism values and learning beliefs are deep-rooted in Chinese immigrants parents' minds. Created favourable and supportive learning environments and various traditional activities are used to support their children's literacy and numeracy learning from an early age. Understanding Chinese immigrant families' learning beliefs and traditional cultural values could contribute to supporting children's personal development and future achievement within the Australian context for both Chinese and Australian educators.

Keywords: Early childhood, Parental perception, Literacy, Numeracy, Child development, Chinese immigrants, Australia.

1. Introduction

Understanding the needs and interests of children and families from diverse cultural backgrounds and mutually respecting their unique culture and traditions could positively affect on the creation of an inclusive learning environment, which could help both Chinese parents and children fit into the Australian early childhood education context and would be beneficial to their future study and development. Concerning literacy and numeracy acquisition and development, increasing the awareness and understanding of the Chinese learning styles and traditional values could help Australia's early childhood educators with their daily teaching work effectively, such as setting up literacy and numeracy-related activities, designing curriculums, having the effective and efficient communications with Chinese parents, and maximising the family-school information exchange with fewer misunderstandings or confusions caused by the different culture and values.

This qualitative research study expects to investigate Chinese immigrant parents' perspectives of their children's literacy and numeracy acquisition and development in early childhood in Australia. It will be underpinned by two different views on early childhood knowledge acquisition, the traditional Chinese Confucian culture and the Australian early childhood curriculum, through reasonable sample selection and scientific data analysis, with the following specific objective.

To evaluate Chinese parents' general ideas of literacy and numeracy acquisition and development in early childhood;

To identify the factors that affect Chinese immigrant parents' perceptions of their children's literacy and numeracy learning;

To analyze the ways and behaviours of supervision or intervention that Chinese immigrant parents are accustomed to using in promoting their children's literacy and numeracy acquisition and development;

To discover whether Chinese immigrant parents' attitudes towards their children's literacy and numeracy learning are able to be well integrated within the Australian curriculum system.

2. Literature Review

2.1. Chinese Learning Beliefs and Parenting Styles

Although the Chinese immigrant parents in Australia are currently living in a totally different culture where has its own unique child-rearing beliefs and goals, in general speaking, a majority of them still maintain the traditional Chinese beliefs and values in terms of fostering and cultivating young children grounded in Confucian philosophy (Ebbeck & Gokhale, 2004).

As the influence of traditional Chinese culture and Confucius's philosophy remains, many Chinese parents still follow the authoritative parenting style, which reflects on trying to control and monitor their children's learning all the time. The majority of Chinese parents are inclined to spend more time and energy giving instructions at home and follow the Chinese traditional parenting style which is to educate and inculcate their children in a much more rigorous and strict way (He, 2015). As the Chinese proverb says that 'the best never exists but only the better ones', they are more likely to push their children to learn more knowledge and be more hard working as early as they can to ensure 'running' in the success pathway and be the winner in the future competitions.

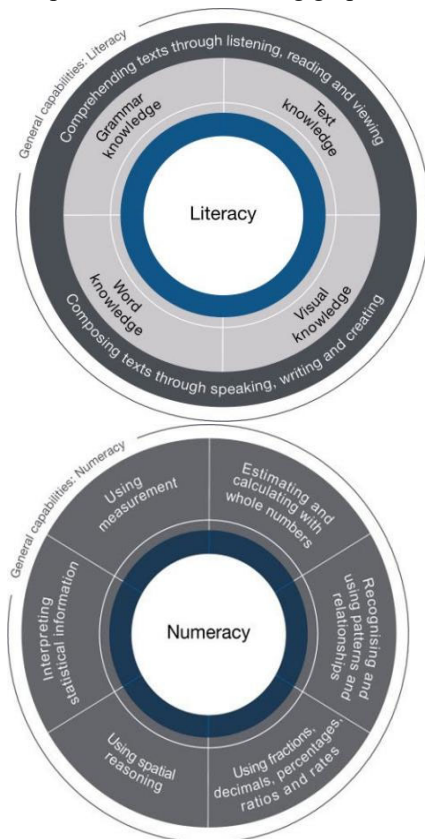
To a certain extent, filial piety is still the most vital family virtue of all the good moral virtues in accordance with Confucianism within the Chinese immigrant families. Children should respect their parents and follow their instructions all the time no matter what circumstances arise to meet their parents' high expectations, keep the family reputations, and achieve socially desirable and personal success (Chan, Chan, & Chan, 2013).

With regard to the Confucianism, it strongly stresses 'individual intellectual development' and 'skill acquisition', which means academic achievements and scholastic attainment are people's ultimate goals. Structured educating has been acknowledged in early childhood education among Chinese; instead of extending a young child's interests and creativeness in the early years, parents are mainly working with the aim of promoting and pushing their children to get better learning outcomes and achieve better learning goals. Chinese parents focus more on their children's efforts rather than their own innate natural talent and try to push their children a bit more.

In the Confucianism, it stresses that the role of external influences on children's development is much more important than on their own inner ability. This kind of belief affects Chinese immigrant parents' thoughts deeply, which could find expression in how strongly they are concerned about choosing the right learning places for children including the child care centres, extracurricular activities institutions and primary schools in terms of school rankings, the reputation of schools, teachers' abilities, and even the peer groups.

2.2. Australian Government Expectations

The early childhood education curriculum in Australia says literacy and numeracy skills are fundamental parts of the curriculum, and all children will be given the support they need to develop their learning skills with age-appropriate literacy and numeracy awareness and skills which the core concerns are stipulated in the following graphs.



(Australian Curriculum, n.d.)

Figure 1. General Capabilities of Literacy and Numeracy in the Australian Curriculum

The government believes children's everyday activities and daily environment play a crucial role in their literacy and

numeracy development, especially for people from age 0 to 8 (Department of Education and Childhood Department Victoria, 2010). It strongly emphasizes that the influence of parental involvement in helping children develop their literacy and numeracy capacity at a young age is a fundamental right and obligation (OECD, 2011). The Australian Department for Education and Child Development (2013) says that as the children's first teachers, parents could play an active role in helping their children to build a solid foundation for their future literacy and numeracy abilities development.

2.3. Literacy Acquisition and Development among Chinese

Western pedagogies and related attractive approaches are taking a place in Chinese children's early literacy learning and are highly accepted by Chinese immigrant parents; however, there are numbers of Chinese parents still think that early literacy means primarily teaching children Pinyin and recognizing and writing isolated Chinese characters, which is embodied in copying repeatedly as a kind of daily practice (Ouyang & Zhang, 2003).

Ethnic language is an important carrier of ethnic identity. Chinese parents with a Confucian heritage highly value early learning and believe that the Chinese language has a very demanding orthography to learn (Li, 2014). Like Zhang & Slaughter-Defoe (2009) states that Chinese immigrant parents generally regard their heritage language as a resource and take active actions to maintain the heritage language in the next generation, they are under a certain extent of pressure to teach their children Chinese at home from an early age in order to ensure that second generation of migrants are able to preserve the home language and maintain and develop their heritage identity.

2.4. Numeracy Acquisition and Development among Chinese

In contrast with the Australian numeracy acquisition and development in early childhood, Chinese people tend to concentrate more on academic-related development. Chinese parents acknowledge the idea that early numeracy learning plays a particularly essential role in the future individual's development and academic achievement, however, many of them still doubt the concept of 'learning through playing'. As I mentioned, Chinese traditional culture emphasizes that effort is the first factor in achieving success. Chinese parents are more likely to use the instillation method in terms of numeracy development and push children to practice more to promote their numeracy skills. For example, Chinese children are required to memorize mathematical rules directly without any explanation like the 'Jiu Jiu Cheng Fa Biao (Multiplication Table)' before they enrol in primary schools. Considering the unique culture, Chinese parents prefer to offer extra tasks to their children due to they believe numeracy skills could be built up gradually in early childhood through a certain amount of practice and repetition (Woodrow & Sham, 2001).

2.5. Relationship between Literacy and Numeracy

Traditionally, people think that early literacy and numeracy capacity construct separately and develop in separate areas. People try to use different kinds of tasks to assess children's

literacy and numeracy skills and they prefer to utilize different instructional practices and activities to promote capacity acquisition and development in these two areas (Hojboski, 2014). However, it is interesting to point out that many longitudinal research studies emphasize parents' and educators' broadly thinking about literacy and numeracy development in early childhood because of the strong links between early literacy learning and numeracy acquisition (Hojboski, 2014). Numbers of recent studies have shown that both cognitive and linguistic factors play a critical role in predicting future numeracy development, which could be partly understood as rather than the home numeracy environment, the home literacy environment predicts early numeracy (Segers, Kleemans & Verhoeven, 2015); such as the improvement of communication and oral language skills in early childhood will be the solid fundamental of children's literacy development and the ability to develop early

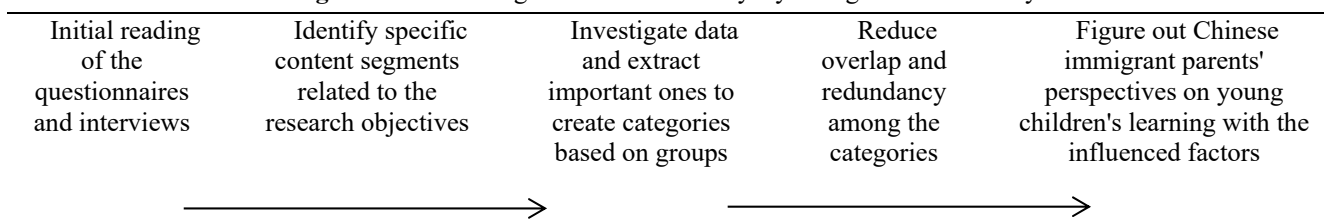
numeracy in terms of mathematical ideas.

3. Methodology

3.1. Theoretical Frameworks

As the main objective of this research topic is to find out people's personal ideas about a particular issue, therefore, this research study will be conducted on the basis of the qualitative research method due to it could help with understanding and exploring the participants' perceptions much more deeply. Throughout this qualitative research, an inductive research approach would be utilized as the main research approach, which provides an easily used and systematic set of procedures for analyzing the data in the study to produce reliable and valid findings on Chinese immigrant parents' ideas of children learning literacy and numeracy (as shown in Figure 2).

Figure 2. The Coding Process in the Study By Using Inductive Analysis



The primary goal of the research using the interpretive phenomenological analysis (IPA) approach as the methodological framework is to investigate in detail how individuals are making sense of their personal and social world about how they think about their children's early literacy and numeracy acquisition within the Australian context (as shown in Figure 3).

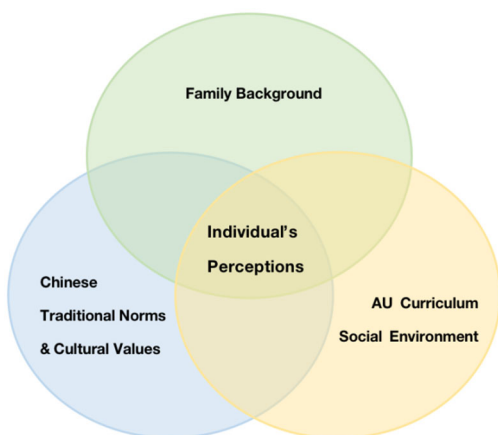


Figure 3. The Research Range of IPA in the Study

3.2. Data Collection

All the collected data in this research study is the primary

data, which means the raw data is gathered firsthand through experiments, surveys, questionnaires, conducting interviews and taking required measurements.

3.2.1. Target Group

To reduce the ambiguity of the collected data and ensure the validity of the study, the target group for this study will include families who are raising at least one child aged 0-10, and families with pregnant women. Because such a target group is usually familiar with the Australian curriculum on account of bringing up their children, and also has a deep understanding and feeling of parenting, which helps us to obtain more specific cases and more in-depth ideas and thoughts. According to the statistics, Chinese people have their first child at the age of 28.18 on average, (CBS, 2021) and each Chinese family living in Australia has an average of 1.8 children (ABS, 2016). Considering the comprehensiveness of the sample data, it is necessary to avoid the missing data of those who choose to have children at a younger age or at an advanced age. Hence, the target group will be defined as Chinese fathers and mothers living in Australia between the ages of 20 and 45.

It should be emphasized that the same ratio of questionnaires and interviews in each state (NSW, QLD, SA, TAS, VIC, WA) and territory (ACT, NT) in Australia will be gathered according to the proportion of Chinese immigrant population in different regions of Australia, for purpose of minimizing the sample data error. The list of the research variables is presented in the following table (Figure 4).

Variables	Definition
<i>Age</i>	Age 20-45, Every 5 Years As A Group
<i>Gender</i>	Male, Female
<i>Place of Residence</i>	
NSW	New South Wales
QLD	Queensland
SA	South Australia
TAS	Tasmania
VIC	Victoria
WA	Western Australia
ACT	Australian Capital Territory
NT	Northern Territory
<i>Education</i>	
Have a PhD in AU	PhD from Australia
Have a PhD from Abroad	PhD from Outside of Australia
Have Higher Education in AU	Bachelors and Masters from Australia
Have Higher Education from Abroad	Bachelors and Masters from Outside of Australia
Have other Specialization in AU	Other Type of Specialization from Australia
Have other Specialization from Abroad	Other Type of Specialization from Outside of Australia
<i>Length of Living in AU</i>	
Less than 3 Years	0 Year < Length of Living in AU < 3 years
3-6 Years	3 Years ≤ Length of Living in AU < 6 Years
6-8 Years	6 Years ≤ Length of Living in AU < 8 Years
8-10 Years	8 Years ≤ Length of Living in AU < 10 Years
More than 10 Years	Length of Living in AU ≥ 10 Years (reference category)
<i>Field of Specialization</i>	
Humanities	Languages, History, Philosophy, Theology, Archaeology, Art, etc.
Social Sciences	Economics, Sociology, Law, Education, etc.
Natural Sciences	Astronomy, Biology, Chemistry, Physics, Mathematics, etc.
Health	Medicine, Surgery, Dentistry, Pharmacy, Nursing, etc.
Engineering	Architecture, Civil Engineer, etc.
Entrepreneurship	
Others	Reference Category
<i>Experience of Raising Child</i>	
Less than 3 Years	0 Year ≤ Length of Living in AU < 3 years
3-6 Years	3 Years ≤ Length of Living in AU < 6 Years
6-8 Years	6 Years ≤ Length of Living in AU < 8 Years
8-10 Years	8 Years ≤ Length of Living in AU < 10 Years
More than 10 Years	Length of Living in AU ≥ 10 Years (reference category)
<i>Number of Kids</i>	
Zero	The mother in the family is pregnant.
One	Only One Child in A Family
Two	Two Kids in A Family
More than Two	More than Two Children in A Family (reference category)

Figure 4. List of Variable

3.2.2. Questionnaire

Given the better economical, favourable flexibility, strong adaptability, concise data analysis and other characteristics, utilizing a questionnaire as one of the data gathering methods in this research can effectively save time and manpower.

The stratified sampling method will be used as a means of drawing samples from the target group. To ensure the study

results will not be biased and be influenced by gender or age factors, the target group will be divided into ten groups based on different gender and age (shown in Figure 5), followed by randomly selecting the same number of participants in each group with a balanced male-to-female ratio to fill out the questionnaires, which will be administered by a professional website (Survey Monkey) for questionnaires.

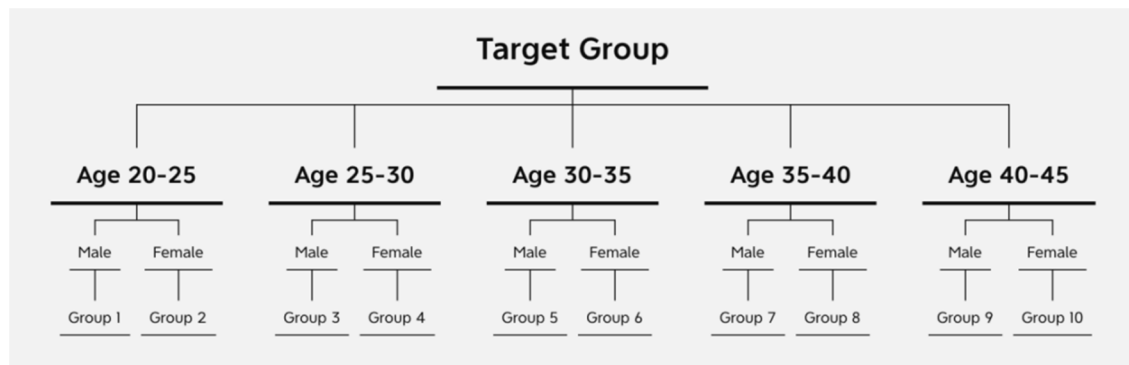


Figure 5. Sample Groups for Questionnaires

In addition to a large amount of sample data that could be quickly collected and analyzed automatically, the main reasons for choosing Survey Monkey are the large scale of the website, its high usage rate in Australia, and its professional ability to meet the format and requirements of most survey questions.

The questionnaire will be conducted in the form of choice questions, including single-choice and multiple-choice questions. The questionnaire will cover participants' basic information including age, gender, education, occupation, and immigration time to Australia, as well as detailed information about parents' opinions on literacy and numeracy and their preferred ways and behaviours in promoting their children's literacy and numeracy development.

3.2.3. Semi-Structured Interview

Considering the need for more detailed and informative data, the face-to-face interview method is utilized to give interviewees the floor to talk about their experiences and increase the mutual understanding and cooperation between the parties through well-designed interview questions and flexible ambience. More importantly, it allows the interviewer to capture the participants' non-verbal behaviours and reactions to help the interviewer to modify the interview tempo and questions at any time to maintain the respondents' interests and measure whether the answers are accurate and effective.

A certain amount of Chinese immigrant parents will be selected to take the interviews by using the systematic sampling method based on the grouping of questionnaires to ensure the randomness of the selected samples. All the face-to-face interviews will be recorded by a phone-recording app with the previous permissions from the interviewees. In comparison to the structured interview and narrative interview, the semi-structured interview method is selected in this study because of its flexibility. All the contained interview questions in this research are open-ended to cut down the limitations and obtain more useful information from the respondents including their attitudes and emotions.

In this study, the interview places and times are flexible and will be arranged a week before via phone calls and WeChat. Each interviewee will be allowed to choose the interview place that could let he/she feel comfortable to help with relieving their sense of unease or nervousness so that they would be more willing to talk about their personal perspectives and share their experience with the interviewer. Same as the interview place, all the interview times will be set based on advance communications with the interviewees to expect them not to be in a hurry during the interviews, otherwise, they might not provide any valid or reliable

information in detail that could be analyzed.

4. Discussions

4.1. 4.1 Results & Findings

A large number of educational-related beliefs and values directly come from the most influential Chinese traditional philosophy, Confucian. Chinese immigrant parents still stick to kind of Chinese traditional beliefs of parenting and values of learning. All of the participants in this study agree that paying attention to impart literacy and numeracy related knowledge to young children as well as improve their independent literacy and numeracy abilities are significant.

To summarize all the interviewees' expressions of what is contained in their children's early literacy acquisition, the English letter, English phonetics symbols and Chinese Pinyin are the three mentioned key parts that all the families expect their children to grasp in early childhood. Chinese parents not only require their children to know how to read them clearly and correctly but also need to have the ability to write them beautifully by using traditional learning approaches like 'copy'.

Over 60% of people stated that they would ask their children to memorize some Chinese unique traditional enlightenment books like <Di Zi Gui> and <San Zi Jing>, and some simple ancient poetries (Tang and Song poems) are also involved in the early literacy acquisition. Even though young children do not have any possibility to understand the content, they are still expected to do so because parents believe using the rote memorization method to learn new knowledge and skills could stimulate children's mental development and they will understand the content when they grow up. As for early numeracy development, 75% of the participants think that the ability of counting, dealing with the additions and subtractions within 100, and memorizing the 'Multiplication Table' are the main concerns in supporting their children's numeracy acquisition at the age of 3-8. The rest mentioned two more skills that they expect their children to gain in early childhood in terms of numeracy, which are the capacity for mental arithmetic and Chinese Zhusuan.

Following the Chinese proverb 'win at the starting line', all the participants recommend that early childhood is the best time in one's life to learn literacy and numeracy knowledge. Chinese immigrant parents believe that the earlier they have the awareness of conducting literacy and numeracy acquisition for their children, the earlier they have the possibility to find out their children's talents or weaknesses. An interviewee used the words 'cannot waste my child's gifts' to describe how much Chinese parents value early literacy

and numeracy learning. On the basis of a rootedness value among Chinese people could be summarized as an idiom called '勤能补拙' - diligence is the means by which one makes up for one's dullness, Chinese parents want to have a clear understanding of their children's talented areas to focus on training as well as their weakness parts to try to help them make improvements through extra practices and activities. Chinese parents often tell their children a Chinese motto saying '一分耕耘, 一分收获' (No Pains, No Gains) since they are at a very young age to let them have a deep understanding of the importance of hard-working. In addition, the results show that they expect literacy and numeracy learning in early childhood contributes to the children's 'brain development', 'logical thinking cultivation', 'future academic performances' and 'personal advancement'.

Through the analyzed data, parental involvement, learning environment, and the awareness of cultivating children's independent thinking and learning skills are the three most important elements in supporting children's literacy and numeracy development. Like the Chinese traditional literature in <San Zi Jing> shows 'to feed without teaching, is the parents' fault' (养不教, 父之过), they believe that one of the most essential reasons for maintaining parental involvement in children's early literacy and numeracy acquisition is to help children to form good learning habits, such as reading habits and logical thinking ways.

Due to the Chinese Confucius's belief pointing out the concerns about human malleability and potential for change, most Chinese parents think of Mencius's mother as an example to strive to create a favourable learning environment for their children and try their best to follow the example, like 'looking for some peers who have similar backgrounds to study together', 'buying school district houses', and 'finding a professional early childhood centre with fantastic teachers, resources and great reputations'.

Besides offering a good learning environment for their children, the participants also stressed that they are sure to provide the needed learning resources as much as possible to help with their children's early literacy and numeracy acquisition. According to the analyzed data, there are two main perspectives in terms of how to support their children's literacy and numeracy learning in early childhood at home. The first one emphasizes on involving technologies in early literacy and numeracy learning to 'increase children's interest in learning', 'cultivate subjective initiative', and 'lay a solid foundation for future development'. Besides, some participants of this research study pointed out that they prefer to create social interaction opportunities like 'bring my child to the English corners in the communities' for their children in order to boost their children's knowledge of both literacy and numeracy.

The deep-rooted Confucian culture and the traditional education concept have influenced Chinese parents deeply and most Chinese parents tend to have high expectations of their children. Competition with other people of similar ages is a crucial element in Chinese culture. As one of the interviewees said:

'If my child's performances are not as good as other children or even are better than others, my family members and I will feel lose face and have the thought of losing family reputation.'

Even though over 2/3 of the interviewees admit that

'learning by playing' is a good learning concept, especially in early childhood education, they still tend to ask their children to spend some time on systematic literacy and numeracy practice and exercise on daily basis due to in Chinese culture, parents believe that the accumulation of knowledge and skills every day could broaden their children's vision, enhance their confidence, and lay the solid foundation of their future development. Sometimes Australian early childhood educators do not suggest or allowed Chinese parents to push their children so hard in early literacy and numeracy learning, and this is the most concerning challenge and conflict which was mentioned in high frequency during the interviews.

4.2. Limitations of the Study

On the basis of the ethical restriction of this study, all the invited interviewees had or are having more than two-year study experience in Australia. On account of having similar overseas study experiences in Australia, they may have a relatively high level of acceptance of the Australian educational culture and context. Therefore, the involved group is somewhat limited which might lead to biased and limited data and results in terms of how Chinese immigrant parents think of their children's literacy and numeracy acquisition in early childhood. To mitigate the impact of this limitation on the research data and increase the data concreteness and comprehensiveness, I suggest that future related studies could evenly distribute some Chinese immigrants who do not have any overseas study experience, especially in Australia, to gain much purer perspectives in terms of Chinese learning styles and traditional Chinese culture of teaching and learning.

5. Conclusion

Early childhood educators must understand and respect diverse cultures because 'culture is the fundamental building block of identity and the development of a strong cultural identity is essential to children's healthy sense of who they are and where they belong' (Early Childhood Australia, 2011). Confucianism is not only the deep-rooted traditional cultural belief that is used to facilitate children's learning, but also the knowledge that Chinese parents expect their children to learn from an early age. Due to the high value of education in Chinese people's minds, Chinese immigrant parents generally attach great importance to their children's literacy and numeracy acquisition and development from an early stage. Having a clear understanding of how Chinese immigrant parents perceive their children's literacy and numeracy acquiring in early childhood and how they actually help with their children's early literacy and numeracy learning and development is typically necessary for Australian early childhood educators to organize their teaching strategies by considering the Chinese traditional learning beliefs and values as well as better the cooperation with Chinese immigrant parents with an aim of facilitating children's learning and overall personal attainment.

References

- [1] Australian Bureau of Statistics. (2016). Census of Population and Housing, Australia. Retrieved from <https://www.abs.gov.au/census/find-census-data/search-by-area>

- [2] Australian Curriculum. (n.d.). Literacy. Retrieved from <https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/literacy>
- [3] Australian Curriculum. (n.d.). Numeracy. Retrieved from <https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/numeracy>
- [4] Chan, D. W., Chan, L. K., & Chan, A. C. Y. (2013). Parenting gifted children among Hong Kong Chinese parents: what differences does westernization make?. *Roeper Review*, 35(3), 177-186.
- [5] Chines Bureau of Statistics. (2021). Census of Population in China. Retrieved from <http://www.stats.gov.cn/zjtj/zdtjgz/zgrkpc/>
- [6] Department for Education and Child Development SA. (2013). Numeracy and Literacy. Retrieved from <https://www.decd.sa.gov.au/sites/g/files/net691/f/numeracy-literacy-strategy-birth-to-18.pdf>
- [7] Department of Education and Early Childhood Development Victoria. (2010). Literacy and Numeracy in the Early Years. Research Monograph, 1.
- [8] Ebbeck, M., & Gokhale, N. (2004). Child-rearing practices in a selected sample of parents with children in childcare in Singapore. *Contemporary Issues in Early Childhood*, 5(2), 194-206.
- [9] Early Childhood Australia. (2011). The Early Years Learning Framework Professional Learning Program. Retrieved from http://www.earlychildhoodaustralia.org.au/nqsplp/wp-content/uploads/2012/05/EYLFPLP_E-Newsletter_No7.pdf
- [10] He, S. (2015). Chinese immigrant parental involvement in the United States public elementary school: A qualitative research study (Doctoral dissertation, Northwest Nazarene University).
- [11] Hojnoski, R. (2014). What Do the Connections between Early Literacy and Numeracy Mean in Preschool. *Pridobljeno*, 20(8), 2017.
- [12] Li, H. (2014). Teaching Chinese Literacy in the Early Years: Psychology, Pedagogy and Practice. Galliard: Graphicraft Limited.
- [13] OECD. (2011). Encouraging Quality in Early Childhood Education and Care (ECEC). Retrieved from <http://www.oecd.org/education/school/48483409.pdf>
- [14] Ouyang, X. & Zhang, L. (2003). An Investigation on Early Literacy Among Urban Preschool Teachers. *Early Childhood Education*, 7, 10-12.
- [15] Segers, E., Kleemans, T., & Verhoeven, L. (2015). Role of parent literacy and numeracy expectations and activities in predicting early numeracy skills. *Mathematical Thinking and Learning*, 17(2-3), 219-236.
- [16] Woodrow, D., & Sham, S. (2001). Chinese pupils and their learning preferences. *Race Ethnicity and Education*, 4(4), 377-394.
- [17] Zhang, D., & Slaughter-Defoe, D. T. (2009). Language attitudes and heritage language maintenance among Chinese immigrant families in the USA. *Language, culture and curriculum*, 22(2), 77-93.