# Holistic Competencies of Chinese Preschool Teachers: Psychological, Physical, and Educational Dimensions

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## Abstract

Preschool teacher training and development addresses the multiplicity of domains and competence areas important in the general development of young children. The psychological, physical and pedagogical aspects of holistic capabilities of preschool teachers have been discussed in this study carried out in China. The research utilized the Partial Least Squares Structural Equation Modeling (PLS-SEM) as well as a quantitative approach in collecting information from 325 preschool teachers located in different regions. Consequently, it is clear that there are significant relationships among the competences: psychological competences like stress management and emotional intelligence have an acceptable influence on educational and physical competences as well. Teachers' energy levels and physical health greatly affect their efficiency at teaching their pupils. These results emphasize the importance of an integrated approach to pedagogical development involving professional, emotional and psychical training for better instruction provision. This paper also underlines correlations between various capabilities, which is congruent with Gardner's Theory of Multiple Intelligences and Bronfenbrenner's Ecological Systems Theory. Some suggestions include creating inclusive teacher education programs; developing inspiring work settings; starting health initiative programs among others. Hence policy decision makers can understand that massive needs have to be met by facilitating holistic programmatic growths whilst rewarding continuous professional development in academics field. This study provides imperative insights into the diverse responsibilities of preschool teachers and lays the groundwork for future research probing longitudinal consequences and objective measures of teacher competence, despite its reliance on self-report data and a narrow geographic emphasis.

#### Keywords

Preschool Teachers, Holistic Competencies, Psychological Competencies, Physical Health, Educational Effectiveness.



#### 1. Introduction

A key component of human development, early childhood education (ECE) has a reflective effect on cognitive, social, emotional, and physical development. Children's early development is when they acquire imperative abilities and learning styles that will impact their performance in school and in life. Higher academic accomplishment, greater social skills, and increased school preparedness have all been linked to high-quality early childhood education, according to research (**Heckman**, 2006; **Barnett**, 1995). Furthermore, early intrusion through early childhood education (ECE) can lessen the impact of socioeconomic differences, giving every kid a fair start in life.

In early childhood education, preschool instructors are indispensable because they serve as the main agents who support the learning and growth of the young students. It is their duty to establish an environment that is both supportive and exhilarating in order to promote each child's overall development. This includes teaching children social and emotional skills to promote their social-emotional development, cheering play-based learning to foster cognitive development, and encouraging physical health through activities that advance motor abilities (**Pianta** *et al.*, 2012). In addition to being educators, preschool teachers are also the students' guides and caretakers as well as positive and responsible role models during the critical age of early childhood.

Preschool instructors must possess a varied range of competences covering psychological, physical, and educational aspects in order to carry out their multifaceted tasks (**Zdanevych** *et al.*, 2020). In order to satisfy the developmental requirements of young children and found the best possible learning environment, teachers must possess certain competences. Also, preschool teachers need to possess holistic capabilities as they tackle the many and diverse aspects of early childhood education (**Kwon** *et al.*, 2021). By mingling psychological, physical, and educational competencies, educators can guarantee that children receive grand care that takes into account every facet of their development.

An understanding and development of holistic competencies of preschool teachers have meaningful implications for Chinese educational policy and practice. This research underlines the importance of the policies that call for the development of the teachers both personally and professionally to respond to the demands of teaching young children. By including courses on emotional intelligence, stress management, and physical health in teacher training programs education student learning can be enhanced. This approach can also promote equality, especially in rural schools and underprivileged district where differences in teaching and learning quality are most significant.

However, there is one major limitation in the present knowledge of developing the person profile of the preschool teachers. Much research effort has been directed towards these areas of competencies, but there appears to be gaps in the literature where these areas are covered as a package, especially within the Chinese context. This study aims to fill that gap by examining the holistic competencies required by Chinese preschool teachers and understanding how these competencies influence the educational outcomes of their students. This research therefore stresses the need to adopt a teacher training and development model that addresses the different of development domains that children need to enhance in order to prepare them for early education settings.

#### 1.1. Research Objectives

The primary purpose of this research is to systematically analyze and comprehend the specific competencies that Chinese teachers working in preschool educational establishments require. Additionally, the goal of this research is to investigate and understand competencies of preschool instructors and to provide impartial analysis of the psychological, physical, and educational competencies' linkages. By using PLS-SEM to test the relationships between these competencies and the combined impact on the result indicators of students' performances and the effectiveness of teachers involved. The outcomes of this quantitative study will be useful in designing practical and effective approaches that will target preschool teachers and create ways for professional development. In addition, the study's findings will provide data about the importance of the comprehensive skill set.

In achieving these objectives, this study will contribute to the body of knowledge on the early childhood education and create usefulness in terms of improvement of the quality of preschool teaching in China.

#### 2. Literature Review

This systematic literature review focuses on the concurrent literature examining pre-service and in-service preschool teachers' comprehensive competencies considering psychological, physical, and pedagogical domains. It provides an understanding of the essential findings of earlier research for the present work and also provides understanding of skills required for preschool teachers and the limitations and drawbacks of the literature which could be fulfilled by this study.

#### 2.1. Psychological Competencies

#### 2.1.1. Emotional Intelligence, Stress Management and Interpersonal Skills

As seen in a study done by Jennings and Greenberg (2009), high emotional intelligences enable teachers to effectively deal

with own emotions – a factor that has positive effects on relations with pupils. With the use of this ability, they may find a nurturing learning atmosphere that promotes kids' social and emotional growth. In a similar vein, **Sutton and Wheatley** (2003) accentuated that emotional intelligence supports educators in managing stress in the classroom, fostering a healthy learning environment, and participating in reflective practice—all of which advance the caliber of instruction.

In order to preserve their wellbeing and their ability to instruct effectually, instructors must practice stress management, according to **Kyriacou** (2001). Time management, social support seeking, and relaxation techniques are all active stress management tactics. According to **Montgomery and Rupp**'s (2005) research, educators who engross in mindfulness and stress-reduction practices report feeling less burned out and having more job satisfaction.

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#### **2.2.** Physical Competencies

#### 2.2.1. Physical Health, Energy Levels and Managing Physical Demands

Teachers' energy levels, endurance, and capacity to actively participate with children are all strongly impacted by their physical health, as shown by **McGrath and Huntington**'s (2007) research. Physical health problems might pay to low teaching quality and absenteeism. **Hakanen** *et al.* (2006) stressed the significance of encouraging teachers to lead healthy lifestyles by establishing an association between physical well-being and decreased burnout and greater job satisfaction.

As **Chang** (2009) points out, preschool instructors must maintain high levels of physical endurance and energy to deal with the physical challenges inherent to their work, which includes maintaining a well-organized classroom and maintaining a strict eye on boisterous children. As with physical fitness, teachers' ability to manage day-to-day teaching issues is closely related to their overall usefulness and resilience.

According to **Pellegrini and Bohn** (2005), in order to evade injuries and preserve their physical ability to teach effectively, preschool teachers should use ergonomically sound practices and engage in consistent physical activity. In addition, measures should be taken to prevent accidents and to ensure physical self-care.

#### 2.3. Educational Competencies

#### 2.3.1. Pedagogical Knowledge, Classroom Management and Curriculum Planning

**Shulman** (1987) highlighted the need for pedagogical content knowledge which entails the ability of teaching specific content. This must be dear for it encapsulates the ability that is prerequisite in coming up with tests and learning activities that are age appropriate for students (**Parejo; Cortón-Heras**, 2023). **Darling-Hammond's** (2000) view regarding professional learning is that constant professional learning is central to teachers so as to remain informed on the latest in research on education and learning methodologies.

Effective classroom management techniques are crucial for developing a disciplined and encouraging learning environment, as demonstrated by **Marzano and Marzano** (2003). This covers methods for organizing, managing behavior, and fostering a supportive learning environment in the classroom. According to **Evertson and Weinstein** (2006), teachers who are adept at managing the classroom may make the most of instructional time and lessen interruptions, which improves student learning results.

The significance of varied instruction—in which educators modify their lesson plans and instructional resources to suit the various necessities of their students—was emphasized by **Tomlinson** (2001). This skill is essential to inclusive education. As stated by **Brown and Campione** (1994), the key features of curriculum advancement include setting accurate learning goals, Search Institute's interesting activities, and the formative assessment process of guiding instructions.

#### 2.4. Theoretical Framework

For the purpose of understanding the comprehensive competencies of the teachers themselves, the following theoretical model couples Gardner's Theory of Multiple Intelligences with the Bronfenbrenner's Ecological Systems Theory.

#### 2.5. Bronfenbrenner's Ecological Systems Theory

The 1979's Ecological Systems Theory also stressed the importance of understanding people in connection to various levels of environment systems by **Bronfenbrenner** (1979). Since it has considered several environmental factors, relating to the psychological, physical and educational aspects, this theory is relevant to the consideration of the competence of preschool teachers (**Ellala** *et al.*, 2022; **Aliane; Sadiq**, 2023). To the theory, there are five ecological systems of the macrosystem, microsystem, exosystem, macrosystem and chronosystem that shape humans'

development through the communication within the systems (**Vlahova-Vangelova** *et al.*, 2023). Perhaps, applying this theory and its tenets toward preschool instructors will help us understand how affiliations with families, coworkers, students, as well as the broader educational environment affect one's competencies.

#### 2.6. Gardner's Theory of Multiple Intelligences

The Multiple Intelligence Theory by **Gardner** (1983) details that there exists variation in intelligence and that all the varieties are essential to achieve the intended goal within a particular context. This concept recognizes the fact that operative teaching requires a diverse multitude of abilities and knowing which strengthens the notion of differential competencies (**Purwadi** *et al.*, 2022; **Yoserwan**, 2023; **Hussein** *et al.*, 2022; **Azcárate**, 2023). Linguistic, interpersonal, intrapersonal, and bodily-kinesthetic intelligences should be attributed to preschool teachers since they have to address young learners' specific needs in order to replace the inclusive classroom setting.

In this paper, these theoretical frameworks are applied together so as to offer a detailed synthesis of the variety of abilities possessed by preschool teachers and the complex interactions between the different types of intelligences in relation to the environmental conditions affecting teacher development.

# 3. Research Methodology

#### 3.1. Research Design

Intrinsic to this study is the examination of multifaceted proficiencies of Chinese preschool teachers through the use of quantitative research paradigm. The primary used analytical tool is Partial Least Squares Structural Equation Modeling (PLS-SEM). This method was chosen as it focuses on the competency-environment interaction analysis of multiple psychological, physical and educational competencies that for an integrated understanding of the competencies. Thus, the best model for this type of research is PLS-SEM since it is rather appropriate for balancing non-normal data distributions and managing complex interactions between frequent variables. It is evident that preschool teachers' psychological, physical and educational competencies, and their interactions can all be watched at once while using this method thus providing a comprehensive understanding of these competencies.

#### 3.2. Justification for Using PLS-SEM

PLS-SEM is chosen for several reasons:

- 1. **Complex Relationships:** Due to the complex task of discovering the relationships between formative and reflective constructs that are tightly connected with teacher skills, PLS-SEM is imperative.
- 2. **Flexibility:** PLS-SEM does not require the data to be normally distributed unlike the classic covariance-based SEM, and hence, the former is more appropriate when working with real-life datasets that very often do not have normal distribution.
- 3. **Predictive Power:** Due to the fact that PLS-SEM has rewarding predictive precision and usability for educational investigate in light of the fact that it optimizes the enlightened variation of the dependent variables. This tool was chosen purposely to suit the objective of the study to assess the multiple faceted competencies in educational setting.

#### 3.3. Sampling Method

The place of sampling was done randomly in different regions of China and involve a quota sample of preschool teachers. This methodology assures that the sample includes variety within the preschool settings (public, private, non-governmental) and geographical areas (urban, suburban, rural) and offers a comprehensive picture of the teacher competencies in preschools all over the country.

#### 3.4. Sample Size

To ensure that the analysis of PLS-SEM had enough power to test the hypotheses that were formulated, the sample size was determined based on a power analysis. Targeting a sample size of at least 300 participants was necessary due to the model's intricacy and the requirement to detect medium effect sizes. According to **Hair et al.** (2017), the lowest sample size for PLS-SEM should be ten times the number of indicators in the most complicated construct. This figure is in accordance with those guidelines.

#### 3.5. Data Collection: Survey Questionnaire

To assess the psychological, physical, and educational competencies of preschool teachers, a thorough questionnaire was created. The survey entailed of both open-ended questions to obtain qualitative insights into instructors' knowledges and viewpoints and closed-ended questions (using a Likert scale) to assess abilities statistically.

To encourage as many people as possible to partake, the poll was conducted both online and on paper. While paper surveys were given out in person to teachers who had restricted internet connection, online surveys were distributed via email and educational platforms. The questionnaire applied for this poll is provided in the Appendix A in order to create full disclosure and replicability of the research in question. Higher response rates and a wider reach were certain

by this dual strategy. Appendix A has the survey questionnaire attached.

#### **3.6. Data Collection Procedures**

- 1. **Pilot Testing:** To pledge clarity and significance, a small sample of preschool teachers participated in a pilot test of the survey to make necessary revisions. The survey was modified as needed based on input from the pilot test.
- 2. **Distribution:** Over the course of six weeks, participants established the final survey, and reminders were issued to endorse completion. Responses from both online and paper surveys were gathered and combined into a single dataset for examination.
- 3. **Confidentiality:** To indorse truthful and accurate reporting, participants were given the assurance that their answers would remain private and anonymous. In addition, specific ethical standards were followed when undertaking the studies including consent to participate and data privacy for the credibility of the studies.

#### 3.7. Data Screening and Preparation

To guarantee quality and accuracy, the data were checked and processed before analysis:

- 1. **Missing Data:** In order to minimize bias and reserve the greatest number of instances, missing data were addressed using multiple imputation approaches.
- 2. **Outliers:** To determine their influence on the analysis, outliers were located and evaluated. Severe anomalies that might skew the findings were suitably handled.
- 3. **Normality:** Although regularly distributed data are not necessary for PLS-SEM, they were examined for normality in order to realize the distribution characteristics and to guide the interpretation of the findings.

#### 3.8. PLS-SEM Analysis

Using SmartPLS software, the PLS-SEM analysis was carried out in accordance with the following methodical steps:

- 1. **Model Specification:** The theoretical framework and the literature review guided the creation of theoretical model aiming at summarizing the relations between psychological, physical, and educational skills.
- Assessment of the Measurement Model: Thus, the measurement model was assessed for validity and reliability. Although, in this process, the indicator loadings, composite reliability, average variance extracted (AVE) and discriminant validity were examined.
- 3. **Structural Model Assessment:** To understand how all the various constructions are connected, it was necessary to look at the structural model. With respect to the significance and strength of the correlation, path coefficients, R-squared, and effect size (f2) were computed.
- 4. **Model Fit:** Based on the PLS-SEM analysis, the GoF and the SRMR, which are often used to evaluate the overall model fit, were applied to assess the proposed model.

## 4. Results

#### **4.1. Descriptive Statistics**

A total of 325 preschool teachers from different parts of China completed the survey. Table 1 provides a summary of the participants' demographic data.

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	45	13.8
Genuer	Female	280	86.2
	Under 25	32	9.8
	25-34	112	34.5
Age	35-44	97	29.8
	45-54	62	19.1
	55 and above	22	6.8
	Less than 1 year	21	6.5
	1-5 years	85	26.2
Years of Teaching Experience	6-10 years	108	33.2
	11-15 years	64	19.7
	More than 15 years	47	14.5
	High school diploma	15	4.6
	Associate degree	72	22.2
Highest Level of Education	Bachelor's degree	175	53.8
	Master's degree	58	17.8
	Doctorate	5	1.5
	Public	185	56.9
Type of Preschool	Private	112	34.5
Type of Preschool	Non-governmental	18	5.5
	Other	10	3.1
	Urban	208	64.0
Location of Preschool	Suburban	82	25.2
	Rural	35	10.8

#### Table 1: Demographic Characteristics of Participants.

#### 4.2. Summary of Responses for Each Competency Dimension

Means and standard deviations were used to summarize the results for each competency dimension, as Table 2 illustrates.

Competency Dimension	Item	Mean	Standard Deviation
	I am aware of my own emotions as I experience them.	4.12	0.78
	I can handle stressful situations effectively.	3.94	0.82
	I understand how my emotions influence my teaching.	4.01	0.80
	I use relaxation techniques to manage stress.	3.65	0.91
Psychological Competencies	I have a good work-life balance.	3.48	1.01
	I seek support from colleagues when I feel stressed.	3.88	0.84
	I communicate effectively with my colleagues.	4.15	0.75
	I build strong relationships with the children in my class.	4.33	0.69
	I manage conflicts in the classroom effectively.	3.92	0.77
	I maintain a healthy lifestyle (e.g., balanced diet, regular exercise).	3.76	0.88
	I rarely get sick during the school year.	3.54	0.94
	I have enough energy to stay active throughout the school day.	3.71	0.87
	I feel energetic when teaching my classes.	3.82	0.83
Physical Competencies	I am able to keep up with the physical demands of my job.	3.85	0.81
	I participate in physical activities with my students.	3.91	0.79
	I use ergonomically sound practices to avoid injury.	3.62	0.89
	I am aware of techniques to manage physical stress and strain.	3.71	0.85
	I regularly take breaks to rest and recover during the day.	3.56	0.92
Educational Competencies	I am confident in my understanding of child development theories.	4.07	0.76
	I design age-appropriate learning activities for my students.	4.11	0.73
	I use a variety of teaching methods to meet the diverse needs of my students.	4.00	0.79
	I can effectively manage classroom behavior.	3.94	0.82
	I create a positive and supportive classroom environment.	4.20	0.70
	I maximize instructional time by minimizing disruptions.	3.88	0.84
	I set clear learning objectives for my students.	4.03	0.78
	I design engaging learning activities that meet curriculum standards.	4.06	0.76
	I use formative assessments to guide my instruction.	3.99	0.80

#### Table 2: Results of Competency Dimensions.

#### 4.3. Measurement Model Assessment

#### 4.3.1. Reliability and Validity of Constructs

To make sure the constructs were valid and reliable, the measurement model was evaluated. Table 3 displays the findings of the confirmatory factor analysis.

Table 3: Reliability and Validity.

Construct	Indicator	Loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
	PC1	0.78		
	PC2	0.81		
	PC3	0.75		
	PC4	0.72		
Psychological Competencies	PC5	0.79	0.89	0.57
	PC6	0.76		
	PC7	0.84		
	PC8	0.82		
	PC9	0.77		
	PHC1	0.75		
	PHC2	0.73		
	PHC3	0.77		
	PHC4	0.79		
Physical Competencies	PHC5	0.76	0.88	0.54
	PHC6	0.81	1	
	PHC7	0.74		
	PHC8	0.72		
	PHC9	0.75		
	EC1	0.80		
	EC2	0.83		
	EC3	0.79		
	EC4	0.77		
Educational Competencies	EC5	0.82	0.91	0.61
	EC6	0.78		
	EC7	0.81		
	EC8	0.84		
	EC9	0.79		

All of the constructions' composite dependability (CR) evaluations were above the 0.70 cutoff point, influencing strong internal consistency. Convergent validity was established by AVE values that were greater than 0.50. Each indicator loading was greater than 0.70, representing that each item's dependability was reinforced.

#### 4.3.2. Confirmatory Factor Analysis Results

The measurement model well-matched the data well, conferring to the results of the confirmatory factor analysis (CFA). A decent fit was revealed by the standardized root mean square residual (SRMR) of 0.053, which is less than the suggested criterion of 0.08. The model fit is further supported by the chi-square/df ratio of 2.35, which is inside the permissible range (less than 3).

## 4.4. Structural Model Assessment

## 4.4.1. Path Coefficients and Their Significance

In order to discover the acquaintances among psychological, physical, and educational aptitudes, the structural model was assessed. Table 4 displays the path coefficients composed with their significance levels.

Table 4: Path Coefficients.

Path	Coefficient	t-value	p-value
Psychological -> Physical	0.42	6.27	< 0.001
Psychological -> Educational	0.36	5.89	< 0.001
Physical -> Educational	0.29	4.78	< 0.001

Strong correlations amongst the capabilities were shown by the fact that all path coefficients were significant at the 0.001 level. Physical and educational capabilities were positively filled by psychological capabilities, and educational competencies were significantly obstructed by physical competencies as well.

#### 4.4.2. R-squared Values and Predictive Relevance

Table 5 displays the R-squared values for the model's endogenous constructs.

Construct	R-squared
Physical Competencies	0.18
Educational Competencies	0.43

Physical competencies had an R-squared value of 0.18, meaning that psychological competencies accounted for 18% of the variation in physical competencies. The psychological and physical competences composed accounted for 43% of the variance in educational competencies, according to the R-squared value of 0.43 for educational competencies. Significant explanatory power is indicated by these values, exclusively when it comes to educational competencies.

#### 4.4.3. Model Fit Indices

The conventional PLS-SEM criteria were used to assess the overall model fit. A good match was indicated by the standardized root mean square residual (SRMR) of 0.053. The comparative fit index (CFI) was 0.93, again suggesting an excellent fit, and the normed fit index (NFI) was 0.91, above the recommended cutoff of 0.90. All together, these directors' point to a good fit between the structural model and the data.

The study's findings found the important acquaintances between the cognitive, physical, and educational skills of Chinese preschool teachers. Physical and educational competences were start to be positively inclined by psychological competencies, while educational capabilities were found to be significantly positively wedged by physical competencies. The results are vigorous since the measurement and structural models displayed strong validity, fit, and reliability.

## 5. Discussion

## 5.1. Significant Relationships among Competencies

The study's conclusions show a strong correlation between the cognitive, physical, and psychological abilities of Chinese preschool teachers. The path coefficients show that psychological and educational capabilities are sturdily positively inclined by one another. This shows that educators are more probable to keep exceptional physical health and perform better in their errands as educators if they have better degrees of emotional intelligence, stress management skills, and interpersonal talents. Furthermore, it was exposed that physical competences significantly amended educational competencies. This recommends that teachers who are physically fit and enthusiastic may engross students more fruitfully and handle classroom activities more skillfully.

These findings highlight the value of a holistic approach to teacher development, since both physical and mental health are indispensable for good instruction. The interaction of these competences infers that cultivating teacher performance should take into account a variety of characteristics of their personal and professional lives.

## 5.2. Comparison with Previous Studies

The study's substantial correlations are steadfast with earlier research findings. Teachers with high emotional intelligence, for example, are well able to manage stress in the classroom and foster positive associations with pupils, which in turn progresses their performance as educators (**Jennings; Greenberg**, 2009). In a similar vein, **Montgomery and Rupp** (2005) and **Kyriacou** (2001) accentuated the vital part stress management plays in preserving teachers' effectiveness and well-being.

Regarding physical abilities, McGrath and Huntington (2007) and Hakanen et al. (2006) revealed a strong correlation between teachers' job happiness and their volume to interact with pupils and their physical health. These findings are

maintained by the study's observation of a positive suggestion amongst physical health and educational usefulness, which supports the notion that teachers who are in good physical health are more talented and resilient in their duties as educators.

It has been widely recognized that certain educational competences, counting pedagogical knowledge, classroom management, and curriculum preparation, are obligatory for successful teaching (Marzano; Marzano, 2003; Shulman, 1987). These skills are measured in this study. The hold of how psychological and physical competencies interrelate to enhance total teaching effectiveness is protracted by the noteworthy impact of these central skills on educational competencies.

#### 5.3. Explanation of Unexpected Findings

Even while the mainstream of the results is dependable with previous research, certain unexpected conclusions call for more discussion. A notable discovery is the comparatively low R-squared value (0.18) for physical competences, in place of that although psychological competencies have a widespread impact on physical health, additional elements might be involved that were not explored in this study. This could include features of one's lifestyle, the environment, or the larger socioeconomic circumstances that have an impact on one's physical health.

The high R-squared value (0.43) for educational competences is another astounding finding. It suggests that psychological and physical capabilities together account for a significant amount of the variance in educational success. This stresses how vital it is for teacher development programs to be combined, addressing professional skills in addition to mental and physical health.

The overall low coefficients of determination for physical competencies may be explained further by other variables which were beyond the scope of this study, for example environmental and socio demographic factors played critical roles in affecting physical health.

#### 5.4. Suggestions for Educational Policy Changes in China

The study's findings have significant ramifications for Chinese educational policy.

- 1. All-encompassing Policies for Teacher Development: The development of teachers should be move toward holistically, with strategies acknowledging the networks between psychological, physical, and educational competencies. It is central to set aside funds and resources to support exhaustive training initiatives that cover these topics.
- Health and Wellness Programs: To indorse the physical and emotional well-being of teachers, educational regulations should necessitate the launch of health and wellness programs in schools. This could comprise routine physical examinations, exercise schedules, and mental health services.
- 3. Incentives for Professional Development: Policies have to to offer rewards for educators who take part in enduring professional development. Financial assistance, chances for professional growth, and acknowledgment for ultimate more education in psychological and physical well-being are a few cases of this.

#### 5.5. Limitations

The use of self-report data, which is liable to biases including social attraction and erroneous self-evaluation, is one of the study's limitations. The legitimacy of the results could be obstructed if participants overvalued or underestimated their competencies. In order to supplement self-report data, future research could include objective measures of competences such as peer estimations, direct explanations, and performance assessments.

The study's concentration on Chinese preschool teachers may have inadequate the findings' applicability in other situations. Teacher aptitudes and their interrelationships can be inclined by cultural, social, and economic disparities. In order to associate results and pinpoint elements that are both context-specific and universal, future study could scrutinize equivalent studies led in numerous nations and areas.

#### 5.6. Suggestions for Further Research

- 1. Longitudinal Designs: To monitor changes in teacher aptitudes over time and investigate the long-term significances of interventions meant to advance psychological, physical, and educational skills, future research could make use of longitudinal designs.
- 2. **Objective Measures:** Including objective measures of teacher competencies can help deliver a more thorough knowledge of how these proficiencies distress the efficiency of instruction. Examples of these measures embrace health assessments, student performance statistics, and observations made in the classroom.
- 3. **Broader Contexts:** Including an extensive range of educational and cultural contexts in research can aid in identifying both shared and distinct elements affecting teacher abilities. When making customized interventions and strategies, proportional research might offer shrewd information.

## 6. Conclusion

This study engrossed on the psychological, physical, and educational aspects of the skills needed for preschool instructors in

China, with the goal line of methodically determining and understanding these necessities. Through the use of partial least squares structural equation modeling (PLS-SEM) and a quantitative research design, the study originates strong correlations between these competencies. This research also has important practice implications like that teacher preparation programmes should incorporate lessons on stress, emotional intelligence and physical health. Minimally, these competencies must be supported by ongoing professional development that enables them to hone such skills; formal and informal structures in institutions of learning should be put in place to assist teachers to cope with stress and other health problems.

Imperative discoveries include the considerable impact of psychological competencies on both physical and academic capabilities, including emotional intelligence, stress management, and interactive skills. Higher emotional intelligence and better stress management practices are linked with amended physical and academic outcomes for teachers. Physical skills, such as leading a healthy lifestyle and holding adequate energy, have a beneficial influence on scholastic skills. Physically fit and passionate teachers are better able to cooperate with their students and oversee classroom operations. Effective teaching necessitates a variability of educational competencies, counting curriculum planning, classroom management, and pedagogical expertise. A noteworthy amount of the variation in educational capabilities can be explained by the combined use of psychological and physical capabilities, accentuating the significance of integrated teacher development. The results are vigorous since the measurement and structural models showed strong validity, fit, and reliability. The vital networks between the competences that have been found highlight the need of an inclusive strategy for teacher development.

This study supports acknowledged theories and ideas in early childhood education by stressing the all-inclusive aspect of preschool instructors' jobs. The elaborate and multidimensional nature of teaching young children is mirrored in the integration of psychological, physical, and educational competencies. The adoption of a holistic viewpoint is vigorous in comprehending and catering to the assorted needs of preschool educators, so pledging the delivery of superior instruction and care. The results are consistent with Gardner's Theory of Multiple Intelligences, which acknowledges the range of skills and capacities needed for efficacious functioning in various contexts, and Bronfenbrenner's Ecological Systems Theory, which accentuates the significance of diverse environmental factors in human development. This study highpoints the importance of holistic development approaches and bids a thorough grasp of the competences mandatory of preschool teachers by assimilating different ideas.

Future studies should make use of longitudinal designs to display how teacher skills evolve over time and inspect the longterm consequences of treatments meant to improve these competencies. Studies that follow participants resolved time can offer more comprehensive insights into how teacher skills grow and endure. Furthermore, objective measurements of teacher abilities, such student performance data, health appraisals, and classroom observations, can be added to selfreport data to create a more comprehensive picture of how these competencies affect the efficiency of instruction. Finding shared and distinct elements impacting teacher skills may be facilitated by broadening the scope of research to incorporate various educational environments and cultural contexts. Comparative research shown in countless nations and areas might yield insightful information for creating interventions and policies that are specifically customized.

#### 6.1. Implications for Practice

#### 6.1.1. Recommendations for Improving Preschool Teacher Training Programs

The study's conclusions make the following useful suggestions for improving preschool teacher preparation programs:

- 1. Holistic Training Programs: Modules on stress management, emotional intelligence, and physical wellness should be included in teacher preparation programs. In addition to providing conventional pedagogical instruction, these programs have to embrace useful techniques for keeping mental and physical wellbeing.
- 2. **Continuous Professional Development:** To support teachers in continuously refining their psychological and physical aptitudes, opportunities for continuing professional development should be offered. Courses, seminars, and workshops on subjects like physical fitness, mindfulness, and a good work-life stability may be helpful.
- Support Systems: Educational establishments such as schools should set up systems of support for their teachers, such as peer support groups, analysis services, and health and wellness initiatives. Streamlining a supportive work environment can aid educators in stress management and health maintenance.

#### References

Aliane, Nadir; Sadiq, Muhammad. (2023). "Project Success Through High Performance Work Practices: Role of Project Manager Leadership Style and Team Performance". *The Journal of Modern Project Management*, v. 11, n. 2, pp. 188-205. https://journalmodernpm.com/manuscript/index.php/jmpm/article/view/672

Azcárate, Asun López-Varela. (2023). "A Call for Sustainable Actions: The Voice of Little Things in Tom McCarthy Microstory "Mermaid Figurine". Cultura, v. 20, n. 1, pp. 43-54. https://doi.org/10.3726/CUL012023.0004

**Barnett, W. Steven.** (1995). "Long-Term Effects of Early Childhood Programs on Cognitive and School Outcomes". *The Future of Children*, v. 5, n. 3, pp. 25-50. *https://doi.org/10.2307/1602366* 

**Bronfenbrenner, U.** (1979). The Ecology of Human Development: Experiments by Nature and Design. Harvard University Press. https://www.hup.harvard.edu/books/9780674224575

Brown, A. L.; Campione, J. C. (1994). "Guided Discovery in a Community of Learners." In: *Classroom Lessons: Integrating Cognitive Theory and Classroom Practice*. McGilly, K. (Ed.), pp. 229-270. The MIT Press. *https://doi.org/10.7551/mitpress/1861.003.0016* 

**Chang, Mei-Lin.** (2009). "An Appraisal Perspective of Teacher Burnout: Examining the Emotional Work of Teachers". *Educational Psychology Review*, v. 21, n. 3, pp. 193-218. *https://doi.org/10.1007/s10648-009-9106-y* 

**Darling-Hammond, Linda.** (2000). "Teacher Quality and Student Achievement". *Education Policy Analysis Archives,* v. 8, n. 1, pp. 1-44. *https://doi.org/10.14507/epaa.v8n1.2000* 

Ellala, Ziyad Kamel; Alsalhi, Najeh Rajeh; Attiyeh, Jamal Hassan Abu; Alqudah, Hatem; Alakashee, Bushra; Al-Qatawneh, Sami; Gad, Salah Mohamed. (2022). "The Impact of Superstitious Ideas on the Students' Failure: An Empirical Investigation of Al-Ain University, United Arab Emirates". *Przestrzeń Społeczna (Social Space)*, v. 22, n. 2, pp. 368-390. *https://socialspacejournal.eu/menu-script/index.php/ssj/article/view/83* 

**Evertson, C. M.; Weinstein, C. S.** (2006). "Classroom Management as a Field of Inquiry." In: *Handbook of Classroom Management: Research, Practice, and Contemporary Issues*. Evertson, C. M.; Weinstein, C. S. (Eds.), pp. 3-15. Lawrence Erlbaum Associates Publishers. *https://doi.org/10.4324/9780203874783-6* 

Gardner, H. E. (1983). Frames of Mind: The Theory of Multiple Intelligences. Basic Books. https://www.basicbooks.com /titles/howard-e-gardner/frames-of-mind/9780465024346

Hair, J. F.; Hult, G. T. M.; Ringle, C. M.; Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). Sage Publications. https://uk.sagepub.com/en-gb/eur/a-primer-on-partial-least-squares-structural-equation-modeling-pls-sem/book270548

Hakanen, Jari J.; Bakker, Arnold B.; Schaufeli, Wilmar B. (2006). "Burnout and Work Engagement Among Teachers". *Journal of School Psychology*, v. 43, n. 6, pp. 495-513. *https://doi.org/10.1016/j.jsp.2005.11.001* 

Heckman, James J. (2006). "Skill Formation and the Economics of Investing in Disadvantaged Children". *Science*, v. 312, n. 5782, pp. 1900-1902. *https://doi.org/10.1126/science.1128898* 

Hussein, Abbas Hameed Abdul; Hasan, Ayad Abas; Taha, Ali; Hasan, Saif Yaseen; Mustafa, Anfal Nabeel; Sahib, Ahmed Abbas; Noori, Sarmd D. (2022). "Meta-Analysis of Efficiency of Medicines Prescribed in Metastatic Cancer: Focusing on Quality of Life and Life Span". *Journal of Carcinogenesis*, v. 21, n. 1, pp. 9-19. *https://submissions.carcinogenesis.com/index. php/Carcinog/article/view/27* 

Jennings, Patricia A; Greenberg, Mark T. (2009). "The Prosocial Classroom: Teacher Social and Emotional Competence in Relation to Student and Classroom Outcomes". *Review of Educational Research*, v. 79, n. 1, pp. 491-525. *https://doi.org/10.3102/0034654308325693* 

Kwon, Kyong-Ah; Ford, Timothy G.; Jeon, Lieny; Malek-Lasater, Adrien; Ellis, Natalie; Randall, Ken; Kile, Mia; Salvatore, Alicia L. (2021). "Testing a holistic conceptual framework for early childhood teacher well-being". *Journal of School Psychology*, v. 86, pp. 178-197. https://doi.org/10.1016/j.jsp.2021.03.006

Kyriacou, Chris. (2001). "Teacher Stress: Directions for future research". *Educational Review*, v. 53, n. 1, pp. 27-35. https://doi.org/10.1080/00131910120033628

Marzano, Robert J; Marzano, Jana S. (2003). "The Key to Classroom Management". *Educational Leadership*, v. 61, n. 1, pp. 6-13. *https://ascd.org/el/articles/the-key-to-classroom-management* 

**McGrath, Belinda J.; Huntington, Annette D.** (2007). "The Health and Wellbeing of Adults Working in Early Childhood Education". *Australasian Journal of Early Childhood*, v. 32, n. 3, pp. 33-38. *https://doi.org/10.1177/183693910703200306* 

Montgomery, Cameron; Rupp, André A. (2005). "A Meta-Analysis for Exploring the Diverse Causes and Effects of Stress in Teachers". *Canadian Journal of Education*, v. 28, n. 3, pp. 458-486. https://doi.org/10.2307/4126479

Parejo, José-Luis; Cortón-Heras, María-O. (2023). "Analysis of an Intergenerational Music Education Project in Initial Teacher Training: A Case Study". *Electronic Journal of Music in Education*, n. 52, pp. 158-177. *https://doi.org/10.7203/LEEME.52.27473* 

**Pellegrini, Anthony D.; Bohn, Catherine M.** (2005). "The Role of Recess in Children's Cognitive Performance and School Adjustment". *Educational Researcher,* v. 34, n. 1, pp. 13-19. *https://doi.org/10.3102/0013189x034001013* 

**Pianta, Robert C; Barnett, W Steven; Justice, Laura M; Sheridan, Susan M.** (2012). Handbook of Early Childhood Education. Guilford Press. https://www.guilford.com/books/Handbook-of-Early-Childhood-Education/Barnett-Justice-Sheridan/9781462523733

**Purwadi, Ari; Serfiyani, Cita Yustisia; Serfiyani, Citi Rahmati.** (2022). "Legal Landscape on National Cybersecurity Capacity in Combating Cyberterrorism Using Deep Fake Technology in Indonesia". *International Journal of Cyber Criminology,* v. 16, n. 1, pp. 123-140. *https://cybercrimejournal.com/menuscript/index.php/cybercrimejournal/article/view/80* 

Shulman, Lee. (1987). "Knowledge and Teaching:Foundations of the New Reform". *Harvard Educational Review*, v. 57, n. 1, pp. 1-23. *https://doi.org/10.17763/haer.57.1.j463w79r56455411* 

Sutton, Rosemary E.; Wheatley, Karl F. (2003). "Teachers' Emotions and Teaching: A Review of the Literature and Directions for Future Research". *Educational Psychology Review*, v. 15, n. 4, pp. 327-358. https://doi.org/10.1023/A:1026131715856

**Tomlinson, Carol Ann.** (2001). *How to Differentiate Instruction in Mixed-Ability Classrooms*. ASCD. *https://ascd. org/books/how-to-differentiate-instruction-in-academically-diverse-classrooms-3rd-edition* 

Vlahova-Vangelova, Desislava; Balev, Desislav; Kolev, Nikolay. (2023). "Cricket Powder (Acheta Domesticus) as a Lean Pork Meat Replacer in Cooked Sausages". *Future of Food: Journal on Food, Agriculture & Society,* v. 11, n. 4. *https://doi.org/10.17170/kobra-202210056951* 

**Yoserwan.** (2023). "Notary Official Secret and Obligation to Report Suspicious Transactions: An Indonesian Criminal Law Perspective". *International Journal of Criminal Justice Sciences*, v. 18, n. 2, pp. 127-138. *https://ijcjs.com/menu-script/index.php/ijcjs/article/view/693* 

Zdanevych, Larysa V; Chaika, Volodymyr M; Pysarchuk, Oksana T; Tsehelnyk, Tetiana M; Ratushniak, Natalia O. (2020). "Training of Future Teachers for Work With Children Under the Conditions of Preschool Inclusive Education". *Revista Tempos E Espaços Em Educação*, v. 13, n. 32, pp. 1-15. *https://doi.org/10.20952/revtee.v13i32.14943* 

# Appendix A

## **Survey Questionnaire Instrument**

Part	Item	Response Options		
Part 1: Demographic Information				
	- Male	- Male		
Gender	- Female	- Female		
	- Prefer not to say	- Prefer not to say		
	- Under 25	- Under 25		
	- 25-34	- 25-34		
Age	- 35-44	- 35-44		
	- 45-54	- 45-54		
	- 55 and above	- 55 and above		
	- Less than 1 year	- Less than 1 year		
	- 1-5 years	- 1-5 years		
Years of Teaching Experience	- 6-10 years	- 6-10 years		
	- 11-15 years	- 11-15 years		
	- More than 15 years	- More than 15 years		
	- High school diploma	- High school diploma		
	- Associate degree	- Associate degree		
Highest Level of Education	- Bachelor's degree	- Bachelor's degree		
	- Master's degree	- Master's degree		
	- Doctorate	- Doctorate		
	- Public	- Public		
Type of Preschool	- Private	- Private		
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- Non-governmental	- Non-governmental		
	- Other (please specify)	- Other (please specify)		
	- Urban	- Urban		
Location of Preschool	- Suburban	- Suburban		
	- Rural	- Rural		
	Part 2: Psychological Competencies			
	I am aware of my own emotions as I experience them.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Emotional Intelligence	I can handle stressful situations effectively.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I understand how my emotions influence my teaching.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I use relaxation techniques to manage stress.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Stress Management	I have a good work-life balance.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I seek support from colleagues when I feel stressed.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I communicate effectively with my colleagues.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Interpersonal Skills	I build strong relationships with the children in my class.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I manage conflicts in the classroom effectively.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	Part 3: Physical Competencies	Strengly Disagree Disagree Neutral Agree Strengly Agree		
Physical Health and Well-	I maintain a healthy lifestyle (e.g., balanced diet, regular exercise). I rarely get sick during the school year.	<ul> <li>Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree</li> <li>Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree</li> </ul>		
being	I have enough energy to stay active throughout the school day.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I feel energetic when teaching my classes.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Energy Loyals and Stamina	I am able to keep up with the physical demands of my job.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Energy Levels and Stamina	I participate in physical activities with my students.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I use ergonomically sound practices to avoid injury.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Managing Physical Demands	I am aware of techniques to manage physical stress and strain.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Wanaging Thysical Demands	I regularly take breaks to rest and recover during the day.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	Part 4: Educational Competencies	Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I am confident in my understanding of child development theories.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I design age-appropriate learning activities for my students.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Pedagogical Knowledge	I use a variety of teaching methods to meet the diverse needs of	Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	my students.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I can effectively manage classroom behavior.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Classroom Management	I create a positive and supportive classroom environment.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I maximize instructional time by minimizing disruptions.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I set clear learning objectives for my students.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Curriculum Planning and Implementation	I design engaging learning activities that meet curriculum standards.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
	I use formative assessments to guide my instruction.	- Strongly Disagree, Disagree, Neutral, Agree, Strongly Agree		
Part 5: Open-ended Questions				
In your opinion, what are the most important compatencies a				
Important Competencies	preschool teacher should have?	(Open-ended)		
Impact of Physical Health	How do you think your physical health impacts your teaching?	(Open-ended)		
Challenging Situation	Describe a challenging situation you have faced in the classroom	(Open-ended)		
	and how you handled it. What professional development opportunities would help you			
Professional Development	improve your competencies as a preschool teacher?	(Open-ended)		