RESEARCH ON THE VERIFICATION OF THE ELEMENTS OF KINDERGARTEN TEACHERS ' COMPETENCY QUALITY

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Abstract

The research on the elements of kindergarten teachers ' competency is the key to the construction of high-quality kindergarten teachers. Through the design of the questionnaire, through the content validity analysis of 29 experts, 326 valid questionnaires of kindergarten teachers were analyzed for reliability analysis and structural validity analysis. After revising the questionnaire, formal questionnaires were distributed to kindergarten teachers in 18 provinces and cities in China, and 683 valid questionnaires were collected. Through the questionnaire analysis of formal investigation, the research proves that the elements of kindergarten teachers ' competency obtained from the text coding of behavioral event interview are accurate, and proves that kindergarten teachers ' competency is a multi-dimensional hierarchical structure, including 8 first-level competency elements and 54 second-level competency elements. The research results can be applied to the investigation of kindergarten teachers ' competency, and can be used as the basis for kindergarten teachers ' training, training, recruitment and performance evaluation.

Keywords: kindergarten teachers; competent quality; verification research

Introduction

High-quality preschool education is crucial to the all-round development of people and the accumulation of social human capital. All countries in the world attach great importance to the quality of preschool education, and have formulated relevant, systematic and authoritative laws and regulations and quality control systems at the national level to ensure, standardize and promote the quality of the development of preschool education. The Chinese government also attaches great importance to the quality of preschool education, has issued on the preschool education deepening the reform specification development several opinions (2018), the kindergarten conservation education quality assessment guide (2022), the "difference" preschool education development promotion action plan (2021) and other policies and regulations, from the policy level to ensure the high quality of preschool education development, fully embodies the basic, strategic position and role of education. According to

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the investigation found, Kindergarten teachers' professional quality is uneven, In economically developed cities or public kindergartens, The overall professional quality and all dimensions of kindergarten teachers are at a high level, However, there are significant differences in the professional quality of kindergarten teachers in different kindergartens, regions and teaching age (Li Q., 2023), There are also obvious differences in the professional quality of kindergarten teachers with different income levels and whether they have an establishment (Leng X.J., 2020); In economically underdeveloped areas and increasingly large teachers, Teachers are generally less educated, Even some unqualified teachers also enter the kindergarten, Lead to various problems in the professional quality of kindergarten teachers, Especially for novice teachers in private kindergartens, Moreover, there are professional ideas and ethics to be improved, professional knowledge is weak, and professional ability is not high (Li L., 2022), etc. In the context of the high-quality development of preschool education, the phenomenon of uneven professional quality of kindergarten teachers should attract the attention of the government, universities, kindergartens and the majority of scholars, and jointly examine and study the elements and improvement strategies of kindergarten teachers' competence, so as to promote the high-quality development of preschool education. Through the validation of kindergarten teachers qualified quality components research, can further enrich and improve the teacher competency theory model research, can be for the administrative department of education, kindergarten human resource management to provide scientific basis, can provide a reference for higher education talent training, can effectively promote the promotion of kindergarten teachers' competent quality level.

Therefore, this study will design questionnaires to verify the components of kindergarten teachers based on the coding results of the behavioral event interview text. Through the pre-survey of the questionnaire, the content validity, structure validity and reliability of the questionnaire were analyzed, and the questionnaire of kindergarten teachers' competency components was revised. Through a formal questionnaire survey, to verify the effectiveness of the components of kindergarten teachers' competence.

Literature review

Teacher competence

In the early 1970s, Professor David McClelland was invited to select more excellent diplomats, to develop the test based on the competency framework to replace the traditional intelligence-based diplomat selection method, and in 1973 published "Testing for competence rather than for 'intelligence' ", using the bottom-up method to put forward the concept of "competence", set off a competency research boom, Initiked "Competencies Movement". Up to now, it has been developed from an auxiliary identification tool to a clear-goal and effective diagnostic system. In the field of education, the study of competency began with the competence of educational managers, and after the end of the 20th century, it gradually focused on teachers, such as Skinkfied A. T and Stufflebeam D (1995) believe that professional knowledge, professional skills or abilities, professional attitude or values constitute teacher competence. Danielson,C.(2007)proposed four dimensions: planning and preparation, teacher environmental monitoring, teaching and professional responsibility constitute teacher competence. The scholars research found that the concept of sustainable development, school support, training, reflection, build effective learning team measures can promote teachers 'competency, such as Goh P S C and Wong K T (2013) through the study of

Malaysia teacher competency, found that common method to improve teacher quality is given priority to, but is limited by school support and resources, and increase the investment in human resources, can provide teachers with education training opportunities, effectively improve teachers' teaching ability. Han R. (2021) believes that the improvement of kindergarten teachers' competence requires kindergarten teachers, pre-service education institutions, kindergartens and the society to jointly help kindergarten teachers as a part of the teacher group, Kindergarten teacher competence is the kindergarten teachers in order to adapt to the job, The sum of the necessary knowledge, ability, attitude, motivation, and quality, Including children's concept, teaching knowledge, teaching skills, class management ability, professional ethics, self-efficacy, motivation for achievement, music group, self-discipline and other corresponding personality traits, Is a necessary condition for preschool teachers engaged in successful teaching, It is also an important basis for post-service teacher training (Zhang C.Y., 2020). In the study of competency model for kindergarten teachers, Wang Q. & Song S.Q. (2008) used the behavioral event interview (BEI) technology to construct a competency model composed of 8 discriminative features such as preschool curriculum development and application, and 8 benchmark features such as kindergarten cultural adaptation and change. Huang, Q.Q., Li, X.L. &Su, Y.J. (2021) established a complete recessive competency model for preschool teachers, including the benchmark implicit competency and the identification of implicit competency, which effectively promoted the research on the construction of competency model for preschool teachers.

Conceptual Framework

This study in China G province C city, S city, J city, 20 kindergarten teachers as interview object, using behavior event interview method, get 211272 words interview text, using the theme content coding and get 54 competency factor, by clustering "personal traits, professional ethics, cultural literacy, professional knowledge and skills, communication, achievement ability, self image, the pursuit of excellence" eight level 1 competency factors. This study used a questionnaire survey to verify the following nine study hypotheses:

Hypothesis 1: The kindergarten teacher competency competency model is a multi-level structure of eight first-level competency elements: "personal traits, professional ethics, cultural literacy, professional knowledge and skills, communication, achievement ability, self-image, and pursuit of excellence".

Hypothesis 2: The personal traits dimension consists of five second-level competency factors: enthusiasm, tolerance, integrity, humility and persistence.

Hypothesis 3: The dimension of professional ethics consists of seven secondary competency factors: love, sense of responsibility, attention to detail, patience, love for early childhood education, respect, and teaching in accordance with the law.

Hypothesis 4: The dimension of cultural literacy consists of and composed of eight secondary competence characteristic factors: knowledge of local culture, cultural understanding ability, cultural excavation ability, cultural integration ability, cultural sensitivity, cultural identity, cultural belief, and cultural value cognition.

Hypothesis 5: The dimension of professional knowledge and skills consists of 11 secondary competency characteristic factors: education and teaching skills, adaptability, reflective ability, planning, professional knowledge, guidance ability, creativity, flexibility, analytical thinking, observation ability and organizational and management ability.

Hypothesis 6: The dimension of communication is composed of six second-level competence characteristic factors: ability to coordinate relationships, understanding of others, emotional awareness, independent insights, service awareness, and communication skills.

Hypothesis 7: The dimension of achievement ability consists of five secondary competence characteristic factors: decision-making ability, talent utilization, strategic thinking, transfer ability and critical thinking.

Hypothesis 8: The self-image dimension consists of six secondary competency characteristic factors: self-motivation, self-control, self-regulation, self-evaluation, self-confidence, and self-esteem.

Hypothesis 9: The dimension of excellence pursuit is composed of six second-level competency factors: challenge and support, diligence in research, motivation for improvement, lifelong learning, teamwork and sense of efficiency.

Research Methods

Questionnaire method: a method for researchers using a uniformly designed questionnaire to study a situation, seek advice or collect data. This study in the behavior event interview text coding kindergarten teachers competency elements, on the basis of design for kindergarten teachers design questionnaire, invite kindergarten teachers in China 18 provinces and cities answer questionnaire, through the analysis of questionnaire data and statistics, verify the results of the qualitative research, form a scientific and suitability of kindergarten teachers competent quality model.

Research design

This study design of kindergarten teachers to evaluate the importance of competent factor questionnaire, survey, content validity analysis, structure validity analysis and reliability analysis, correction, form the kindergarten teachers competent quality identity questionnaire, then for Chinese provinces and cities to implement formal investigation, verify the composition of kindergarten teachers competent quality elements is accurate.

Design questionnaire

The design framework of the questionnaire includes:

(1) Sample background information: including background information, age, education and other background information.

(2) Sample characteristic information items: including teaching age, professional title and other characteristic information.

(4) Competent characteristics of variables: the competency characteristics obtained from the code of behavioral event interview are described as variable information, in the form of five-point Likert scale.

Research result

1. Pre-investigation

(1) Content validity analysis 20 behavioral event interview interviewees and 6 universities and 3 kindergarten experts were invited to review the content validity of the "competency characteristic variable items".

Table 1 List of experts on content validity analysis

Respondents of the behavioral event interview		specialist	
Performance excellent group	Performance general group		
Y001	P001	H1	University, professor, master of Psychology
Y002	P002	H2	University, professor, doctor of education
Y003	P003	H3	University, professor, doctor of management
Y004	P004	H4	University, associate professor, master of Psychology
Y005	P005	H5	University, lecturer, doctor of management
Y006	P006	H6	University, lecturer, doctor of education
Y007		H7	Kindergarten, professor, preschool education undergraduate program
Y008		H8	Kindergarten, professor, preschool education undergraduate program
Y009		H9	Kindergarten, associate professor, preschool education undergraduate program
Y010			
Y011			
Y012			
Y013			
Y014			
14 Person	6 Person	9 Person	
29 Person			

According to the revision opinions proposed by 29 experts, the items with unclear expression and ambiguity were deleted and modified, and the questionnaire for the pre-survey was determined. Questionnaires were distributed to kindergarten teachers in C city, S City and J City of G Province, China, and a total of 326 valid questionnaires were collected to including reliability and structural validity analysis of the collected data using SPSS23.0.

(2) Reliability analysis

The reliability analysis of the pre-survey uses the internal consistency α coefficient. According to the view proposed by De Vellis(1991), when the α coefficient is located between 0.80 and 0.90, the reliability of the scale is good, and between 0.70 and 0.80, the reliability is good. The data analysis of the pre-survey showed that the overall consistency α coefficient of the competency questionnaire was 0.834, indicating that the overall reliability of the questionnaire is good; the α coefficient of the 8 first-level dimensions of the questionnaire is higher than 0.78, indicating that the measured reliability is good and the validity analysis can be conducted. As shown in Table 2 for details.

Table 2: The reliability analysis of the pre-survey questionnaire

dimension	The Cronbach's Alpha value	number of terms
personal traits	0.879	5
professional knowledge and skills	0.912	11
self-image	0.785	6
pursuit of excellence	0.875	6
achievement ability	0.891	5
communication	0.934	6
cultural literacy	0.886	8
professional ethics	0.879	7
Total reliability	0.834	54

(3) Structural validity analysis

Through the structural validity of the KMO test and Bartlett sphere test and the pre-survey questionnaire data analysis, the KMO value was 0.871 and the P-value corresponding to the Bartlett sphere test was 0.000, indicating the suitability for exploratory factor analysis.As shown in Table 3 for details.

Table 3 Results of KMO and Bartlett spherical tests for the pre-survey construct validity analysis

(Kaiser-Meyer-Olkin) The KMO metric		0.871
Bartlett Spherical test	Approximate chi square	1865.64
	df	102
	Sig	.000

Principal component analysis was used for factor extraction and maximum variance variation for factor rotation. The analysis results show that the correspondence of the 8 competency feature dimensions and the question items is expected, and the structure is relatively clear,

From the perspective of sample distribution data, the distribution is relatively uniform, and the results of the survey are representative and typical.

(2) Data analysis

After collection and analysis of formal questionnaire data information, it was found that KMO value =0.916, indicating the excellent structural validity of the scale; Bartlett spherical test results were significant, indicating that the questions of the scale had good structural validity and were suitable for exploratory factor analysis,

The principal component factor extraction method was selected by the maximum variance variation method. The total variance interpretation results show that 8 common factors are extracted, and the cumulative variance interpretation rate is 90.422%. It can be understood as 54 competent feature items finally extracted 8 factors, which can represent 90.422% of the information volume. Overall, the exploratory factor analysis showed good results.

After the data is standardized, the double load phenomenon does not appear in the exploratory factor analysis. The rotating score coefficient matrix of each factor is shown in Table 8, and the factor load of all items is greater than 0.4. hypothesis 1 is established, that is, the competency model of kindergarten teachers under the background of local cultural resources development is a multi-dimensional structure composed of eight dimensions.

Discussion

1. Design and implementation of the study questionnaire.

After the reliability analysis, content validity analysis and structure validity analysis, the pre-survey questionnaire was revised and a formal questionnaire was formed. A formal survey was carried out for kindergarten teachers in 18 provinces and cities including F Province, and a total of 683 were recovered.

2. Exploratory factor analysis of kindergarten teachers confirmed that:

(1) Hypothesis 1 is established, that is, the kindergarten teacher competency model is a multi-dimensional level structure, composed of eight first-level dimensions: professional knowledge and skills, cultural literacy, professional ethics, communication, pursuit of excellence, self-image, achievement ability, and personal traits.

(2) Hypothesis 2 is true, that is, the individual trait dimension is composed of five competency characteristic factors: enthusiasm, tolerance, integrity, humility, and persistence.

(3) Hypothesis 3 is established, that is, the professional ethics dimension consists of seven competence characteristic factors: love, sense of responsibility, attention to detail, patience, love for early childhood education, respect, and teaching in accordance with the law.

(4) Hypothesis 4 is established, that is, the cultural literacy dimension consists of eight competency characteristic factors: knowledge of local culture, cultural understanding ability, cultural excavation ability, cultural integration ability, cultural sensitivity, cultural identity, cultural belief, and cultural value cognition.

(5) Hypothesis 5 is established, that is, the professional knowledge and skills dimensions are composed of 11 competency characteristic factors: education and teaching skills, adaptability, reflective ability, planning, professional knowledge, guidance ability, creativity, flexibility, analytical thinking, observation ability, and organization and management ability.

(6) Hypothesis 6 is established, that is, the communication dimension is composed of six competency characteristic factors: ability to coordinate relationships, understanding of others, emotional awareness, independent insights, service awareness and communication skills.

(7) Hypothesis 7 is established, that is, the dimension of achievement ability is composed of five competency characteristic factors: decision-making ability, talent utilization, strategic thinking, transfer ability and critical thinking.

(8) Hypothesis 8 holds, that is, the self-image dimension consists of six competency characteristic factors: self-motivation, self-control, self-regulation, self-evaluation, self-confidence, and self-esteem.

(9) Hypothesis 9 is established, that is, the pursuit of excellence dimension is composed of six competency factors: challenge and support, diligence in research, motivation for improvement, lifelong learning, teamwork and sense of efficiency.

Summary and suggestion

1. Kindergarten teachers 'competence quality is a "professional knowledge and skills, cultural literacy, professional ethics, communication, the pursuit of excellence, self image, achievement ability, personal traits" eight level competent elements of multidimensional hierarchical structure, contains 54 secondary competency factor, proves that the behavior event interview text coding of kindergarten teachers' competent quality elements is accurate.

2. Competency model can become the focus of a series of work, such as recruitment, performance evaluation, training, and personal development planning, and can become one of the most potential common human resource management tools, the model of kindergarten teachers verified in this study can be widely used in local education administrative departments and kindergartens to provide decision support for selecting qualified talents; it can be used for training and training for preschool teachers and the assessment and evaluation of kindergarten teachers.

3. The competency model of kindergarten teachers constructed in this study can be used to investigate the competency level of kindergarten teachers in different regions, to explore the influence mechanism of kindergarten teachers' competence, and to provide a theoretical basis for how to improve the competence of kindergarten teachers.

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