

Development of the Life Emotions Rating Scale for Older Children and its Reliability Tests

Feiyue Zhou

Correspondence: Feiyue Zhou, Chengdu University, Chengdu, China.

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Abstract

The cultivation of the emotion of life is the core of life education, which truly conforms to the logic of life education and truly reflects the value of life education. However, limited to the monistic characteristics of the evaluation of the kindergarten and the abstract characteristics of the emotion of life, the cultivation of the emotion of life of young children in the kindergarten has been neglected, and it is difficult for life education to play the real value. Based on an extensive literature review, we developed the "Kindergarten Children's Life Emotions Assessment Scale," designed to visualize life emotions. This assessment aims at enhance the feasibility of cultivating these emotions by making them more visible. The development process included conducting initial and formal measurements with 148 questionnaires, performing item analyses, and conducting reliability tests. The results show that the reliability and validity of the Kindergarten Early Childhood Life Emotions Assessment Scale meets the requirements of psychometrics, and that this assessment scale has good statistical significance.

Keywords: life emotions; scale development; reliability and validity

1. Introduction

1.1 Introduce the Problem

Life is the logical starting point of education; the harmonious development of life is the ultimate goal of education; and life education is an educational orientation that embodies life care, it is defined as educational activities centered around natural life, social life, and spiritual life, aimed at enhancing life cognition, experiencing life emotions, and realizing life value (FengJianjun, 2018). A series of policies, such as the *Guidelines for the Learning and Development of Children Aged 3-6*, the *Guidelines for Kindergarten Education (for Trial Implementation)*, and the *Opinions of the Central Committee of the Communist Party of China and the State Council on the Deepening of the Reform and Standardising of the Development of Pre-school Education*, all refer to the need to ensure the health and safety of young children's lives. The implementation of life education is a response to the requirements of the policy, which enables young children to learn about themselves, interact with others, come into contact with nature and understand life, thus planting the seeds of protection, reverence and love of life in their hearts. Sukhomlinsky said: "It is impossible to really know the world if one approaches, interprets and understands it with indifference and without enthusiasm. The first thing that education should cultivate is human emotion..." It can be seen that the cultivation of life emotion is the core of life education. Life emotions can enhance an individual's life cognition, including knowledge, meaning, and values, as well as influence life behaviors, such as positive actions. Cultivating positive life emotions is crucial for young children, as it fosters the development of a positive worldview and forms the foundation for self-worth, self-protection, and kindness towards others.

1.2 Explore Importance of the Problem

The emotion of life is the individual's recognition, affirmation, acceptance, and cherishing of self-life, the consciousness, joy, and intoxication of the meaning of life, as well as the compassionate care and love for the lives of others and for the whole world of life. The study of the emotion of life in China has been more limited than in other countries. In China, there are fewer studies on the emotion of life alone, and some studies have extracted the factors of the emotion of life to study the sense of meaning of life, emphasising that the individual's recognition and affirmation of the meaning of his or her own life is aimed at prompting the individual to be aware of the purpose and mission of life, and to be willing to continuously enhance the awareness and understanding of the meaning, purpose and mission of life (ZhuJiahao, 2022). We also investigate the current situation of the sense of meaning of life in different groups and explore the

corresponding cultivation measures. The current situation of the sense of meaning of life in different groups is investigated and the corresponding measures are explored. The cultivation of the sense of the emotion of life has been recognised by some scholars and penetrated into different disciplines. For example, the interpretation of the meaning of the emotion of life in the textbooks of the language discipline (WangRuirui, 2023).

Cultivation of the emotion of life at the pre-school stage is regarded as a part of life education and the core of life education, but combing through the relevant literature, we can see that most of the existing life education activities for young children are inclined to take a structured form, and in terms of the objectives, they reflect the traditional tendency to emphasise the teaching of knowledge and skills of life, and the cultivation of the emotion of life is neglected. One reason for this is that the evaluation of kindergarten education often has a clear monistic character, favoring indicators that are easy to quantify, such as knowledge and skills, while indicators such as emotions and attitudes are outside of the evaluation system due to their abstract nature and difficulty in quantification. Evaluation orientation has a profound impact on educational practice, under such an evaluation system, the cultivation of young children's life emotion is neglected by teachers, and life education is difficult to give full play to its value. The cultivation of emotion should be paid attention to by kindergartens, and the construction of evaluation system should be more comprehensive and diversified. At present, there are relatively few evaluation scales related to the emotion of life in our country, and the measurement of the emotion of life of young children is mostly expressed in the aspects of life care and attitude towards life and death (XuYuzhen, 2012). The current evaluation lacks comprehensiveness and employs inappropriate methods. There is also a shortage of tools to facilitate the use of "evaluation" to enhance "teaching" of life emotions. To address these gaps, this study developed the "Evaluation Scale of Life Emotions for Kindergarten Children," based on previous research. This scale is designed for use by front-line teachers and aims at support the cultivation of life emotions in young children.

2. Scale Development and Data Analysis

2.1 Initial Scale Development

Based on the conceptual definitions of "life education" and "emotion of life" by scholars at home and abroad, and with reference to the existing practical contents of the cultivation of the emotion of life and the series of objectives of life education for young children, the study initially drew up the general structure of the evaluation scale of the emotion of life for young children of older classes. The scale is structured around four primary dimensions: individual life, others' life, social life, and natural life. These primary dimensions are further divided into eleven secondary dimensions based on principles of practical relevance, systematic structure, and comprehensive content. Each secondary dimension corresponds to specific behavioral indicators for evaluation. The secondary dimensions include self-acceptance, self-care, enjoyment of life, gratitude to others, empathy for others, appropriate response to death, sense of belonging to the collective, sense of collective honour, kindness to animals and plants, protection of nature, and reverence for nature.

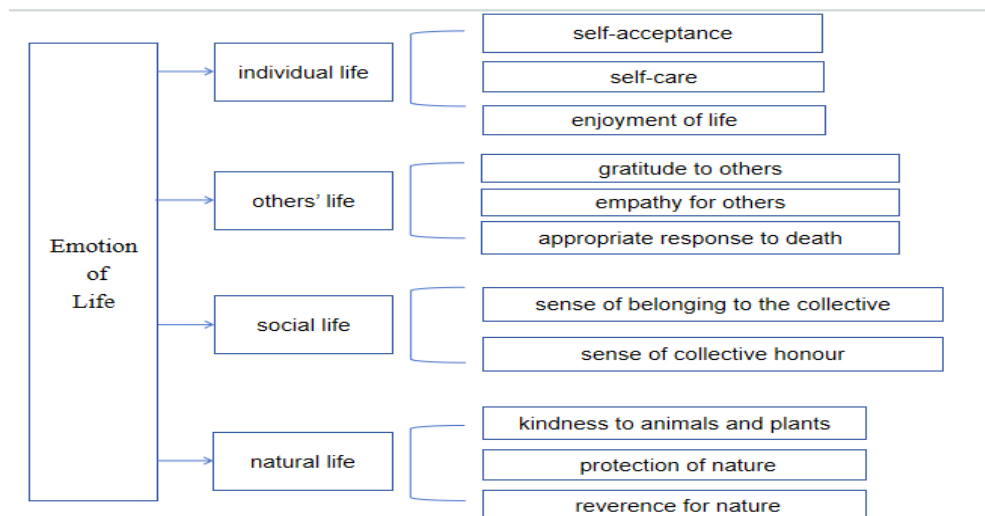


Figure 1. Structure of the Life Emotions Rating Scale for older children

Based on the above framework, the researcher analysed each of the secondary dimensions, combined the goal system of life education proposed by Wang Bing (2021) who write in *The Foundation of Early Childhood Life Education Theory and the Path of Practice*, and then referred to *Early Childhood Life Attitude Rating Scale* and *Early Childhood Life Attitude Questionnaire for Children Aged 5-7*, to delineate a number of behavioural indicators that can be practically measured contained under each of the secondary dimensions, and carried out the initial scale preparation. The initial

scale was based on a five-point Likert-type scale with a total of 32 items, and the target respondents rated the children on the basis of the items, with a range of 1-5 points, with higher scores indicating higher levels of life-emotional development of the children.

After the initial scale was formed, relevant experts from universities were asked to evaluate the questionnaire items and the kindergarten teachers were asked to try using it. Based on the feedback from university experts and kindergarten teachers, the questionnaire items that were ambiguous or difficult to understand were revised. Consequently, the final scale was developed into a format that can be used effectively.

2.2 Initial Scale Administration

The main purpose of the initial scale is to test the self-developed assessment scale through item analysis and to provide a basis for further adjustment and modification of the assessment tool. After the initial scale was compiled, the researcher selected two kindergarten classes for questionnaire distribution by convenience sampling method, with parents of kindergarten children as the target group, and a total of 58 questionnaires were recovered, and the remaining sample of 46 questionnaires was excluded from the invalid samples, so that item tests were carried out within the small sample.

After analysing the reasons for the deletion of the Levene test of variance equation for variance chi-square questions and non-chi-square questions the results of which are not significantly differentiated ($p > 0.05$), the remaining 31 items. By controlling the data of the results of the first questionnaire, it showed that the differentiation between the samples was low, in order to exclude the limitations of scoring ambiguity that interferes with the effect of the questionnaire testing. The researcher modified the scoring method of the scale by employing a seven-point Likert-type scale for the 31 items evaluated during the initial measurement phase. This adjustment led to additional refinements of the original scale.

2.3 Formal Scale Administration

Through item analysis, the structure, content and scoring method of the preliminary scale were optimised. In order to further test the science, validity and applicability of the scale, this study randomly selected five large classes in two kindergartens for questionnaire distribution and re-administration (without duplicating the sample of the previous administration). The Likert-type scale was adopted, and the formal version of the "Life Emotions Assessment Scale for Kindergarten Children" was used to rate the kindergarten children, with a range of 1-7 points, and the higher the score, the higher the children's life-emotional development level. A total of 138 samples were recovered from the distribution of the questionnaire, and 102 samples remained after invalid samples were excluded. The measured data were entered into SPSS18.0 for data analysis, which was used as a sample for item testing and reliability analysis.

2.3.1 Project Analysis

The study used item tests for item analysis. Item analysis is the process of analysing the differences between high and low scorers on each question or testing for homogeneity across items, and its results can be used as a basis for individual item screening or modification. In this study, item tests were conducted on 31 items of the scale. The study aggregated the sample scores and ranked the scores in order of high and low, with the top 27% of the sample being the high group and the bottom 27% of the sample being the low group, and independent samples t-tests were conducted with the high and low groups as variables. The results showed that the test value of $p < 0.00$ for each question item, which indicates that all 31 question items are significantly differentiated from each other. Therefore, at this step, all the questions were retained.

2.3.2 Validity Analysis

The study used exploratory factor analysis to test the internal structural validity of the scale. Firstly, Bartlett's test of sphericity was used to test the correlations between the questions and between the questions and the total score, i.e. to test the suitability of factor analysis. The results showed that the KMO coefficient of the 31 questions of the Life Emotions Rating Scale for Kindergarteners was 0.922, which is ideal, and the Bartlett's test of sphericity result of p was 0.00, $p < 0.01$, which is at a highly significant level, which leads to the statistical decision that the next step of factor analysis can be carried out. Subsequently, the data were subjected to principal component analysis combined with the principle of taking the larger factor loadings, and the cumulative variance explained was 72.509%, which meets the criterion of explaining more than 50%, indicating that these 32 questions can explain 72.509%, with good validity.

2.3.3 Reliability Analysis

The study analysed the reliability of the scales with Cronbach's alpha coefficient. In terms of reliability, the Cronbach's alpha coefficient for the first subscale was 0.894, for the second subscale was 0.936, for the third subscale was 0.884, for the fourth subscale was 0.933, and the Cronbach's alpha coefficient for the total scale is 0.971. It meets the criteria

that the reliability coefficient of each dimension subscale is greater than 0.60, the overall is greater than 0.80, and the reliability coefficient of the subscale is less than the reliability coefficient of the total scale, which means that these 31 questions have good consistency and the scale is reliable.

3. Results

The Life Emotion Scale for Kindergarten Children is structured around four primary dimensions: individual life, others' life, social life, and natural life. Each primary dimension encompasses several secondary dimensions. These secondary dimensions include self-acceptance, self-care, enjoyment of life, gratitude towards others, empathy for others, appropriate response to death, sense of belonging to the collective, sense of collective honor, kindness to animals and plants, protection of nature, and reverence for nature. Altogether, the scale comprises 31 questions, which is able to reflect the development level of young children's emotion of life in a more comprehensive way, with high reliability and validity, and can be used as a scientific tool to measure young children's emotion of life. The scale is applicable to 5-6 year old children in older classes, and is scored by the parents with the children as the target. When administering the test, parents should rate their toddlers based on their daily understanding of their toddlers and in conjunction with actual questioning of their toddlers. The administration of this scale provides a comprehensive reflection of the varying levels of life emotions among different young children. However, in the process of scale development, due to the limitations of manpower, material resources and time, the sampling range of the sample is small, and the sampling range can be further expanded in the future. In conclusion, the variables of the scale are comprehensive and have been tested to have good reliability and validity, and it can be used as a tool for assessing the life emotion of young children in older classes within a certain range.

4. Research Recommendations

With rapid social development and the increasing pressure on individuals, there is a growing demand for a better quality of life and positive emotional experiences. We have entered an era characterized by a heightened call for emotional connection and care. In response to this need, life education serves as a crucial intervention. However, in the process of education, life education has been intentionally or unintentionally neglected or alienated, life education is trapped in the dilemma of "first" concept, "zero" landing. This situation indicates that life education is difficult to implement, life education is difficult to play the value of life education. How can we overcome the perceived "sacred" barrier surrounding life education? How can we translate its abstract concepts into practical realities, ensuring that life education becomes a tangible and grounded practice rather than remaining merely theoretical? It has become an important direction for life education research. Cultivation of life emotion is the core of life education, which is really in line with the underlying logic of life education and reflects the value of life education, and it is an important topic that should be researched even though the research on life education is relatively weak.

The compilation of the Life Emotion Assessment Scale is a preliminary attempt made by the researcher to study the cultivation of life emotion, and its aims at enhance the feasibility of cultivating these emotions by making them more visible. Kindergartens can use this scale to comprehensively observe and assess the development of the emotion of life in kindergarten children and take effective measures to promote the development of the emotion of life, and can start from the following aspects during the process of using this scale:

4.1 Organic Integration of Parent Assessment and Teacher Guidance

In the process of using the scale, on the one hand, teachers should provide effective guidance on the content of the parental assessment, interpret the indicators of the scale to parents, so that parents can assess on the basis of understanding, to avoid understanding bias; on the other hand, teachers should provide effective guidance on the scoring of the parental assessment, explaining the criteria for scoring to parents, so that parents can unify the basis of scoring, to avoid subjective deviation in scoring.

4.2 Life Emotions Assessment and Nurture Closely Linked

In the process of using the scale, teachers should realise that assessment is only a tool, evaluation is not the goal, and promoting teaching is the purpose. Teachers should closely link the assessment of the emotion of life and the cultivation of the emotion of life, grasp the goal of the cultivation of the emotion of life according to the evaluation index of the emotion of life, formulate corresponding programmes to cultivate the emotion of life of young children based on the evaluation, and realize the effective cycle of the assessment of the emotion of life and the cultivation of the emotion of life.

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