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Construction of a Positive Psychology Oriented Campus Psychology Curriculum System

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SUMMARY: *Colleges and universities should focus on cultivating students' comprehensive ability when teaching, not only focusing on the improvement of students' professional ability, but also paying more attention to students' mental health. This paper takes the general education course of mental health education, the activity course of mental health education, and the comprehensive course of mental health education as the entry point to construct the campus psychological course system under the perspective of positive psychology. Immediately after that, according to the principle of evaluation index selection, the evaluation indexes of campus psychological course system under positive psychology perspective are determined, followed by the entropy weight method to calculate the evaluation index weights of campus psychological course system under positive psychology perspective, and the weight values are substituted into the cloud model as inputs, so that the comprehensive evaluation values of campus psychological course system under positive psychology perspective can be calculated. The comprehensive evaluation cloud of campus psychology course system is between "E" [40, 60) and "F" [60, 80), and the numerical values are obviously biased toward the left endpoint of the interval [40, 60) and part of the values fall into the interval [50, 60), which indicates that the positive psychology program system from the perspective of positive psychology has been evaluated. Psychology perspective of the campus psychology program system is in the middle primary stage. This study not only promotes the self-growth of college students, but also helps students to establish a correct state of mental health.*

KEYWORDS: *entropy weighting method; cloud model; weighting; positive psychology; campus psychology curriculum system*

1 Introduction

In the rapid development of Chinese society, people pay more attention to the psychological aspects of health, which makes the status of campus psychological education has been significantly improved [1]. However, the traditional teaching of psychological courses often focuses on problem solving, and this kind of correction often forms a negative mindset, which is unfavorable to the cultivation of a good mindset. At the same time, influenced by Western culture, the concept of "positive psychology" has been introduced into the country, providing a new perspective and method for the construction of campus psychology program system.

Positive psychology emerged in the United States at the end of the last century, is one of the latest advances in contemporary psychology, and once proposed, it has caused a strong reaction [2]. Positive psychology is committed to reversing and compensating for traditional psychology's excessive focus on and correction of psychological problems, advocating the

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development of positive human strengths and virtues, as well as the ultimate realization of happiness and joy as the ultimate goal [3, 4]. The construction of a positive psychology-oriented campus psychology curriculum system is not simply adding and piecing together positive elements in the curriculum, but rather to deeply integrate the core concepts of positive psychology into every aspect of the curriculum system [5, 6]. From the precise anchoring of the course objectives, the careful arrangement of the course content, the skillful design of the teaching methods, to the professional shaping of the faculty and the scientific development of the course evaluation, all of them are centered on the core mission of stimulating the students' inherent positive strengths and potentials, and promoting their psychological growth and overall development [7-9]. The ultimate goal of the curriculum system is to cultivate students' sound psychological quality in all aspects, so that they can have a positive and optimistic attitude towards life, perseverance, harmonious interpersonal relationships, as well as clear self-knowledge and career planning ability [10-12]. Thus, they can comfortably cope with various challenges encountered in the process of growth and lay a solid foundation for their lifelong happiness [13]. Only in this way can we truly realize the transformation of campus psychological education from the traditional problem response mode to the positive cultivation mode.

In this paper, under the perspective of positive psychology, the campus psychological curriculum system under the perspective of positive psychology is established, which consists of the general education course of mental health education, the activity course of mental health education, and the comprehensive course of mental health education. On this basis, based on the principle of evaluation index selection, the evaluation indexes of the campus psychological curriculum system under the perspective of positive psychology are determined, and the data of this research are obtained through the questionnaire scale test. Subsequently, the entropy weight method is used to calculate the weights of the evaluation indexes of the campus psychological course system under the perspective of positive psychology, and the weight values are imported into the cloud model for training and calculation in order to realize the evaluation and analysis of the campus psychological course system, thus demonstrating the actual development level of the current psychological course system in colleges and universities and providing theoretical guidance for the construction of the campus psychological course system oriented by positive psychology.

2 Exploration on the construction of psychological course system in colleges and universities

Under the theoretical guidance of Positive Psychology, the campus psychology curriculum system under the perspective of Positive Psychology is established from three aspects, namely, the general education program of mental health education, the activity program of mental health education, and the comprehensive program of mental health education, and the theoretical support is provided for the development of the following research work.

2.1 Positive psychology

(1) Research Content

Positive psychology studies three main levels: subjective, individual and group. The subjective level studies positive subjective experiences, happiness and fulfillment for the past, hope for the future, and joy for the present. The individual level studies positive personal traits, the ability to love and work, interpersonal skills, a sense of beauty, perseverance, tolerance, creativity, and talent. The group level examines civic virtues and various social organizations,

including family, community, school, media, etc., and how these organizations enable individuals to become responsible, courteous, altruistic, tolerant, and ethical citizens.

(2) Mental Health Thought

In terms of mental health prevention, positive psychology believes that the systematic molding of a variety of good qualities within the individual is the best prevention of mental health, not a cure for disease. What should be done is to measure these qualities reliably and validly, to figure out the process and pathway of formation of these qualities, and to intervene appropriately at the right time so that these qualities can be better shaped. In terms of psychotherapy, positive psychology advocates the use of positive means and methods to promote change in the visitor, such as positive attention, rapport, verbal skills, and trust skills. Compared with previous psychotherapeutic approaches, positive psychology emphasizes the development of new qualities rather than trying to change existing cognitive and behavioral habits.

2.2 Psychology Curriculum System from the Perspective of Positive Psychology

The construction of the psychological course system under the perspective of positive psychology should first take into account the characteristics of colleges and universities and the needs of students, it is a course system that covers the whole process of college life, and it is targeted to set up the course content for the psychological characteristics and psychological needs of students, and it is an overall construction of the college students' mental health education course system, and the psychological course system under the perspective of positive psychology is shown in Figure 1. The system includes three types of mental health education general education courses, mental health education activity courses, and mental health education comprehensive courses, and the combination of the three types of courses forms a complete mental health education course system.

(1) Mental Health Education Liberal Studies Program

The specific contents of the general education course on mental health include: first, the popularization of mental health knowledge, with the teaching focusing on the introduction of the basic viewpoints of the main psychological schools and how to correctly look at psychological problems. The second is personal growth and adaptation. The teaching focuses on understanding the development of self-awareness, discovering the great self, recognizing life and cherishing life through the discussion of life and death. Third, method and skill development, teaching focuses on introducing the characteristics of university life, introducing the importance and necessity of time management for college students, the process of interpersonal communication, factors affecting communication and common types of interpersonal communication.

(2) Mental health education activity programs

There are several main situations in which group counseling is carried out in colleges and universities. First, it is used for the treatment of people with certain psychological disorders. Students facing the same kind of psychological problems participate in group activities, and the effective interaction between group members enables them to talk to each other, identify with each other and understand each other, thus allowing such students to realize that his psychological disorder is not unique. Secondly, it is used for developmental group counseling to improve a certain aspect of psychological quality, such as lack of confidence in the future, lack of self-confidence in oneself, self-abandonment, weak self-management and monitoring ability, distorted self-evaluation and poor interpersonal skills. Thirdly, it is used for class meeting activities to improve the psychological quality of all students.

(3) Comprehensive Course on Mental Health Education

Comprehensive courses emphasize students' personal experience, students' participation and commitment, and multi-directional communication between teachers and students, and between students and teachers, and are the main form of mental health education courses. To treat various psychological problems with a scientific attitude and to improve the ability to solve psychological problems. To form a network of in-class and out-of-class, education and guidance, counseling and self-help. To make the comprehensive curriculum of mental health education courses based on general education and group counseling activities as the main line, so as to enhance the wholeness and effectiveness of mental health education.

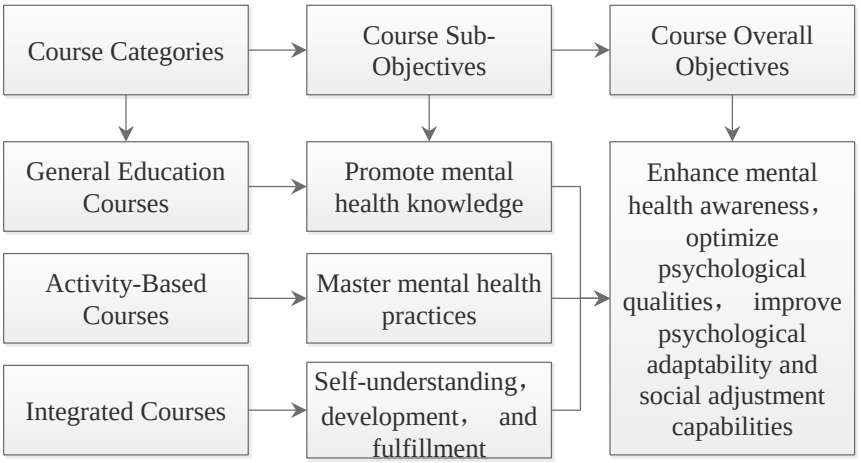

Figure 1: Psychological curriculum system

3 Programs for building the psychological curriculum system in colleges and universities

On the basis of establishing the campus psychological course system under the perspective of positive psychology, based on the principle of evaluating index selection, the evaluation indexes of the campus psychological course system under the perspective of positive psychology are determined, and then the entropy power method and cloud model are combined to formulate the construction plan of the psychological course system in colleges and universities, aiming at demonstrating the current level of development of the campus psychological course system.

3.1 Evaluation indicators

The concept of college mental health education program system refers to the viewpoints, opinions and beliefs held by the college mental health education program, the establishment of a set of correct conceptual system will help to establish a scientific and reasonable college psychological program system, without the correct conceptual system as a guide, even if a momentary fluke can be gained, but ultimately it will bring failure. The principles for selecting evaluation indexes for the psychological course system in colleges and universities include:

(1) Combination of qualitative evaluation and quantitative evaluation.
(2) Combination of static evaluation and dynamic evaluation.
(3) Combination of comprehensive evaluation and single evaluation.
(4) Student-centered.
(5) Drawing on the characteristics of traditional and modern psychology.
(6) Combining evaluation and construction, promoting construction by evaluation.

Finally, under the guidance of the principle of evaluation index selection, 5 first-level

indexes and 22 second-level indexes were selected to constitute the evaluation indexes of the psychological curriculum system in colleges and universities, and the evaluation indexes of the psychological curriculum system are shown in Table 1. The first-level indicators are background evaluation, teacher evaluation, teaching materials evaluation, process evaluation, and effectiveness evaluation, which are set as A1, A2, A3, A4, and A5. The second-level indicators are institutional setup and system construction, campus culture construction, curriculum, teaching input, student management system, teacher qualification, teaching level, mental health status, teaching attitude, teaching materials objectives, technical characteristics, and content characteristics, Policy implementation, implementation of teaching programs, interface between classroom and outside the classroom, use of teaching tools, classroom atmosphere, individual student benefits, collective student benefits, teacher growth, sustainability of the curriculum building experience, and generalizability of the curriculum building experience, set as B1, B2, B3, B4, B5, B6, B7, B8, B9, B10, B11, B12, B13, B14, B15, B16, B17, B18, B19, B20, B21, B22.

Table 1: Evaluation indicators of the psychological curriculum system

First-level indicator	Symbol	Secondary indicators	Symbol
Background evaluation	A1	Institutional setup and system construction	B1
		Campus culture construction	B2
		Curriculum design	B3
		Teaching investment	B4
		Student Management System	B5
Teacher evaluation	A2	Teacher qualification	B6
		Teaching level	B7
		Mental health status	B8
		Teaching attitude	B9
Textbook evaluation	A3	Textbook Objectives	B10
		Technical characteristics	B11
		Content features	B12
Process evaluation	A4	Policy implementation status	B13
		The implementation of the teaching plan	B14
		The connection between the classroom and outside the classroom	B15
		The application of teaching methods	B16
		Classroom atmosphere	B17
Effectiveness evaluation	A5	The individual benefits of students	B18
		The collective benefits for students	B19
		The growth of teachers	B20
		The sustainability of course construction experience	B21
		The generalizability of course construction experience	B22

3.2 Entropy weight method

Entropy is a thermodynamic physical concept that reflects the degree of chaos and disorder in a system, and the magnitude of entropy represents the magnitude of a system's order, that is, the amount of information it carries. Information entropy is the average value of the amount of information in an event using entropy in thermodynamics, therefore, mathematically speaking, information entropy is the amount of information contained in an event, which is the product of the probability of each possible outcome of an experiment and the sum of its outcomes.

From the perspective of information theory, information is a measure of the order of a system, while entropy is a measure of the degree of chaos of a system; based on the concept of information entropy, its entropy value symbolizes the discrete nature of an indicator, and the lower its information entropy is, the greater its impact on the results of the comprehensive assessment. Therefore, the information entropy can be used to determine the weight of each indicator, thus providing the basis for the comprehensive assessment of multiple indicators.

Due to the different units of each indicator of the evaluation index system, when the horizontal gap between the numerical values of each indicator is large, if directly analyzed and compared, the weight of the indicators with large values will be large, and the weight of the indicators with small values will be small or even converge to 0. In order to ensure the reliability of the results, it is necessary to standardize the initial data from 0 to 1, to eliminate the influence of the quantitative outline on the screening of the indicators, and the indicators will be normalized.

Positive indicator standardization:

$$x'_{ji} = \frac{x_{ji} - \min\{x_{ji}\}}{\max\{x_{ji}\} - \min\{x_{ji}\}} \tag{1}$$

Standardization of reverse indicators:

$$x'_{ji} = \frac{\max\{x_{ji}\} - x_{ji}}{\max\{x_{ji}\} - \min\{x_{ji}\}} \tag{2}$$

where: x_{ji} -Initial sample value of the indicators for the evaluation of the campus psychological program system.

$\min\{x_{ji}\}$ -Minimum value of the i rd indicator of campus psychological course system evaluation.

$\max\{x_{ji}\}$ -Maximum value of the i th indicator of campus psychological course system evaluation.

x'_{ji} - Standardized value of the sample of indicators for the evaluation of the campus psychological curriculum system.

Assuming that there are p indicators and q evaluation objects, calculate the weight of the r th sequence of evaluation objects under the i th indicator in relation to that indicator V_{ri} :

$$V_{ri} = \frac{x_{ri}}{\sum_{r=1} x_{ri}} \tag{3}$$

Calculate the entropy value of the i st indicator e_i :

$$e_i = -k \sum_{r=1}^{q} v_{ri} \ln\left(v_{ri}\right) \tag{4}$$

where, $k = 1/\ln(q)$, if $v_{ri} = 0$, $v_{ri} \ln\left(v_{ri}\right) = 0$.

Calculate the indicator utility value d_i :

$$d_i = 1 - e_i \tag{5}$$

Calculate the weight of each indicator w_i :

$$w_i = \frac{d_i}{\sum_{i=1}^{p} d_i} \tag{6}$$

3.3 Cloud Modeling

Cloud model is a kind of transition model that can transform qualitative concepts and quantitative descriptions with uncertainty, and it has been widely used in the fields of natural language processing, decision analysis, data mining, image processing and intelligent manipulation. Based on the combination of fuzzy mathematics and statistical mathematics, the cloud model unifies the random and fuzzy nature of uncertain linguistic values and accurate values, so that the quantitative quantitative values and qualitative linguistic values can complete a natural transformation.

Let U be a quantitative thesis containing exact values, and C represent a qualitative concept of U if the quantitative values $x \in U$ and x are the result of a single random realization of the qualitative concept C and x have a stable random tendency with respect to the certainty $\mu(x) \in [0,1]$ of the qualitative concept C . If:

$$\mu : U \to [0,1] \quad \forall x \in U, x \to \mu(x) \tag{7}$$

The distribution of x over an argument domain U is called a cloud, denoted $C(X)$. Any one of these x is called a cloud droplet.

The cloud model is characterized by three numerical eigenvalues Ex (expectation), En (entropy), and He (hyperentropy) that characterize the concept as a whole.

Expectation Ex : is the distribution of the cloud in the domain of the argument, the point value in the spatial extent of the number field that best represents the qualitative concept, and arguably the most representative concept, which reflects the center of gravity of the cloud droplet population of that concept.

Entropy En : is a measurable granularity of a qualitative concept, which is used to provide a comprehensive measure of the degree of ambiguity and probability of a qualitative concept. As the value of entropy increases, the macroscopic nature of the general concept becomes larger, reflecting the correlation between randomness and ambiguity. On the one hand, En is a measure of the randomness of a qualitative concept that exhibits the degree of discretization of a cloud droplet, i.e., the number of points can represent the randomness of the concept in the number field space. On the other hand, it is a direct reflection of the size of the cloud droplets that can be admitted by the concept in the domain space, i.e., the so-called “vagueness”.

Hyperentropy He : is a measure of the uncertainty of entropy, which is determined by the two properties of entropy, random and fuzzy. It reveals the aggregation of the uncertainties at the points representing the values of the language in the space of the argument, i.e. the cohesion of the cloud droplets, and the magnitude of the superentropy can indirectly reflect the thickness and the degree of dispersion of the cloud.

Evaluation indicator comment set is the evaluator based on its possible various evaluation results, and the evaluation object data range is divided into a number of levels of the field, set indicator comment set $H = \{H_1, H_2, H_3, \cdots, H_t\}$, each level has a corresponding evaluation interval, the evaluation level number t should not be too much, too much will lead to the language value is difficult to describe and thus increase the difficulty of determining the level of attribution, therefore, the evaluation level number t is generally taken as 0 ~ 20, 20 ~ 40,

40 ~ 60, 60 ~ 80, 80 ~ 100 such values, which can produce an intermediate level, which is easier to determine the level of attribution. 60, 60~80, and 80~100, which can produce an intermediate level, thus making it easier to determine the grade attribution. Accordingly, this study divides the hierarchical domain of the evaluation indexes of the campus psychology program system into five grades: $H=\{C,D,E,F,G\}$, where “C” represents a poor grade, ‘D’ represents a poor grade, "E “ represents a grade of medium, ‘F’ represents a grade of good, and ”G" represents a grade of excellent. The set of comments for each evaluation index and the final comprehensive evaluation results in this paper are expressed in the form of the above five grades.

After constructing the indicator rubric set, it is necessary to realize the transformation of the fuzzy concept of each indicator evaluation level through the normal cloud model, reflecting the specific information of the cloud model. The construction of normal cloud model needs cloud numerical eigenvalues as its necessary parameters, and the cloud numerical eigenvalues include Ex (expectation), En (entropy) and He (hyperentropy). Let the upper and lower critical values of rank $h(h=1,2,\cdots,t)$ corresponding to indicator $x_i\,(i=1,2,\cdots,n)$ be x_{lh}^{i} and x_{hh}^{i} respectively, then the qualitative concept of rank h corresponding to indicator i can be transformed into using the normal cloud model:

$$Ex_{ih}=(x_{ih}^{a}+x_{ih}^{b})/2 \tag{8}$$

Since the critical value is a transition between two adjacent levels, it is actually a fuzzy boundary which should belong to two neighboring levels each, i.e., the affiliation of the two evaluation levels corresponding to a critical value should be equal. Then:

$$\exp\left\{-\frac{\left(x_{ih}^{a}-x_{ih}^{b}\right)^{2}}{8\left(En_{ih}\right)^{2}}\right\}*0.5 \tag{9}$$

To wit:

$$En_{ih}=\frac{x_{ih}^{a}-x_{ih}^{b}}{2.355} \tag{10}$$

Hyperentropy He_{ih} represents the thickness of the cloud layer, which is a measure of the uncertainty of entropy, and a suitable value of hyperentropy is selected by adjusting it through many repeated tests.

The actual data of each evaluation index of the campus psychology course system and the calculated cloud digital eigenvalues, with the help of the X -conditional cloud generator, generate the affiliation degree of each grade corresponding to each evaluation index, and form a matching cloud model affiliation matrix. The normal cloud model affiliation degree is:

$$X\left(x_0\right)=\exp\left\{\frac{\left(x_0-Ex\right)^{2}}{2\left(En'\right)^{2}}\right\} \tag{11}$$

where En' is a normal random number taken En as the expectation and He as the standard deviation, $En'\sim N(En,He)$. The generated affiliation matrix is denoted as $U=(U_{lth})_{n\times t}$. In order to make the accuracy of the evaluation results much higher, the final evaluation index

affiliation is determined by using the combined average of the values of the different affiliations under the repetitive N times X condition cloud generator, i.e.:

$$U_{ih} = \frac{1}{N}\sum_{k=1}^{N} U_{ih}^{k} \tag{12}$$

The weight W of each evaluation indicator is fuzzy transformed with the affiliation matrix U of each evaluation indicator to obtain the fuzzy evaluation subset $Z = \left(z_1, z_2, \cdots, z_h\right)$ on the rubric set H:

$$Z = W \times U \tag{13}$$

where, $Z_h = \sum_{i=1}^{n} W_i U_{ih} \left(h = 1, 2, , t\right)$, indicates the affiliation degree corresponding to the h nd evaluation grade of the evaluation object. Accordingly, combined with the principle of maximum affiliation, the grade where the maximum affiliation is located is selected as the final grade of the comprehensive evaluation of the campus psychology course system.

4 Exploratory analysis

After determining the reviewers, the data of this study were obtained through the questionnaire scale test, and the entropy weighting method mentioned above was first used to calculate the weights of the evaluation indexes of the campus psychological course system under the perspective of positive psychology. On this basis, the cloud model was used to carry out a comprehensive evaluation of the campus psychological course system under the perspective of positive psychology, with a view to revealing the current level of campus psychological course system construction.

4.1 Analysis of the weights of the indicators of the psychological curriculum system

In this paper, 4 experts in psychology course-related research, 2 mental health lecturers, 12 teachers with rich experience in campus psychology course system, 26 graduate students who have participated in the exploration of psychology course system, and 18 teacher education undergraduates who have systematically studied psychology courses, totaling 62 members, were selected to form the evaluation team for this study. The questionnaire was designed to be completed by the evaluators within 30-60 minutes; if the questionnaire takes too long, it may cause psychological boredom among the evaluators and affect the final results of the study. This study required the review panelists to watch the psychological curriculum related content and review each psychological curriculum system based on the scale. In order to ensure the validity of the study, and taking into account the time constraints of the evaluation team personnel, it is recommended that the evaluators should be divided into several small evaluations of the psychological course systems, with intervals of rest, to ensure the objectivity of the evaluation results. After more than a month of data collection and the distribution of 366 questionnaire volumes, a total of 351 valid evaluation scales were recovered, with a recovery rate of 96%.

Mathematical statistics were performed on the recovered data, and the original data of evaluation indicators are shown in Table 2. According to the data performance in the table, it can be seen that the initial data range of the 22 evaluation indicators in the psychological curriculum system of colleges and universities is 80~149, which demonstrates the reviewers'

assignment of the evaluation indicators of the psychological curriculum system of colleges and universities.

Table 2: Original data of evaluation indicators

Index	1	2	3	4	5	6	7	8	9	10
B1	130	109	100	118	102	91	80	146	117	84
B2	116	105	128	101	95	94	84	138	98	115
B3	102	118	108	100	145	115	121	95	116	143
B4	122	100	88	147	105	100	92	90	102	117
B5	148	109	118	133	122	136	94	110	98	143
B6	92	138	144	104	106	84	128	84	113	114
B7	145	94	132	81	82	96	103	118	123	82
B8	118	126	90	90	103	114	124	92	119	113
B9	113	136	117	149	91	97	109	110	89	116
B10	114	105	105	129	125	95	148	137	112	111
B11	86	95	120	88	118	86	112	105	82	135
B12	112	132	84	122	130	82	140	97	89	121
B13	138	84	128	113	115	142	92	136	98	145
B14	83	86	141	139	123	128	116	85	139	90
B15	99	110	83	94	102	90	103	105	93	90
B16	138	146	144	130	83	149	116	133	133	139
B17	137	143	84	112	81	129	132	139	147	84
B18	132	122	87	138	101	96	140	122	124	90
B19	113	94	132	133	149	83	111	132	148	139
B20	116	81	130	100	132	138	118	115	141	149
B21	121	146	91	119	94	148	148	117	129	113
B22	122	146	89	129	96	114	94	115	107	116

Using the above formula to standardize the data in Table 2 to get the standard data of evaluation indexes, the standard data of evaluation indexes of psychological courses in colleges and universities are shown in Table 3. After standardized processing, the data of evaluation indexes of psychological courses in colleges and universities are in the interval of [0, 1], which ensures that the results of the study have stronger credibility and explanatory power.

Table 3: Standard data for evaluation indicators

Index	1	2	3	4	5	6	7	8	9	10
B1	0.121	0.101	0.093	0.110	0.095	0.084	0.074	0.136	0.109	0.078
B2	0.108	0.098	0.119	0.094	0.088	0.088	0.078	0.128	0.091	0.107
B3	0.088	0.101	0.093	0.086	0.125	0.099	0.104	0.082	0.100	0.123
B4	0.115	0.094	0.083	0.138	0.099	0.094	0.087	0.085	0.096	0.110
B5	0.122	0.090	0.097	0.110	0.101	0.112	0.078	0.091	0.081	0.118
B6	0.083	0.125	0.130	0.094	0.096	0.076	0.116	0.076	0.102	0.103
B7	0.137	0.089	0.125	0.077	0.078	0.091	0.098	0.112	0.116	0.078
B8	0.108	0.116	0.083	0.083	0.095	0.105	0.114	0.084	0.109	0.104
B9	0.100	0.121	0.104	0.132	0.081	0.086	0.097	0.098	0.079	0.103
B10	0.097	0.089	0.089	0.109	0.106	0.080	0.125	0.116	0.095	0.094
B11	0.084	0.093	0.117	0.086	0.115	0.084	0.109	0.102	0.080	0.131
B12	0.101	0.119	0.076	0.110	0.117	0.074	0.126	0.087	0.080	0.109
B13	0.116	0.071	0.107	0.095	0.097	0.119	0.077	0.114	0.082	0.122
B14	0.073	0.076	0.125	0.123	0.109	0.113	0.103	0.075	0.123	0.080
B15	0.102	0.114	0.086	0.097	0.105	0.093	0.106	0.108	0.096	0.093
B16	0.105	0.111	0.110	0.099	0.063	0.114	0.088	0.101	0.101	0.106
B17	0.115	0.120	0.071	0.094	0.068	0.109	0.111	0.117	0.124	0.071
B18	0.115	0.106	0.076	0.120	0.088	0.083	0.122	0.106	0.108	0.078
B19	0.092	0.076	0.107	0.108	0.121	0.067	0.090	0.107	0.120	0.113
B20	0.095	0.066	0.107	0.082	0.108	0.113	0.097	0.094	0.116	0.122
B21	0.099	0.119	0.074	0.097	0.077	0.121	0.121	0.095	0.105	0.092
B22	0.108	0.129	0.079	0.114	0.085	0.101	0.083	0.102	0.095	0.103

Taking $k = \frac{1}{\ln 10}$, the entropy value of each indicator is calculated according to the formula, and the entropy value of the indicator is shown in Table 4.

$$H1 = -\frac{1}{\ln 10}\sum_{i=1}^{10} f_{ij} \ln f_{ij} = 0.1912$$

Similarly, $H2 \sim H22$ can be calculated.

Table 4: Indicator entropy value

H1	H2	H3	H4	H5	H6	H7	H8	H9	H10	H11
0.1912	0.1903	0.1901	0.1906	0.1902	0.1911	0.1918	0.1898	0.1905	0.1899	0.1907
H12	H13	H14	H15	H16	H17	H18	H19	H20	H21	H22
0.1912	0.1910	0.1919	0.1891	0.1901	0.1920	0.1907	0.1909	0.1906	0.1906	0.1902

The coefficient of variation for each indicator is calculated based on the formula g, and the coefficient of variation for the indicator is shown in Table 5.

$$g_1 = 1 - H1 = 1 - 0.1912 = 0.8088$$

Similarly, $g2 \sim g22$ can be calculated.

Table 5: Coefficient of index difference

g1	g2	g3	g4	g5	g6	g7	g8	g9	g10	g11
0.8088	0.8097	0.8099	0.8094	0.8098	0.8089	0.8082	0.8102	0.8095	0.8101	0.8093
g12	g13	g14	g15	g16	g17	g18	g19	g20	g21	g22
0.8088	0.809	0.8081	0.8109	0.8099	0.808	0.8093	0.8091	0.8094	0.8094	0.8098

The weight value of each indicator is calculated according to the formula, and the results of the indicator weights are shown in Table 6.

$$w_1 = \frac{g_1}{22 - \sum_{i=1}^{22} H_i} = 0.0454$$

Table 6: Index weight result

w1	w2	w3	w4	w5	w6	w7	w8	w9	w10	w11
0.0454	0.0455	0.0455	0.0455	0.0455	0.0454	0.0454	0.0455	0.0455	0.0455	0.0455
w12	w13	w14	w15	w16	w17	w18	w19	w20	w21	w22
0.0454	0.0454	0.0454	0.0455	0.0455	0.0454	0.0455	0.0454	0.0455	0.0455	0.0455

On this basis, the values of the first-level indicator weights can be further obtained, and the summary of the indicator weights of the campus psychological course system is shown in Table 7. Combined with the data in the table, it can be seen that the entropy weight method selected in this paper reveals the relationship between the size distribution of the weights of the indicators of the psychological course system under the perspective of positive psychology, providing data support for the following research work.

Table 7: Summary of Indicator Weights

First-level indicator	Symbol	Secondary indicators	Symbol
A1	0.2274	B1	0.0454
		B2	0.0455
		B3	0.0455
		B4	0.0455
		B5	0.0455
A2	0.1818	B6	0.0454
		B7	0.0454
		B8	0.0455
		B9	0.0455
A3	0.1364	B10	0.0455
		B11	0.0455
		B12	0.0454
A4	0.2272	B13	0.0454
		B14	0.0454
		B15	0.0455
		B16	0.0455
		B17	0.0454
A5	0.2274	B18	0.0455
		B19	0.0454
		B20	0.0455
		B21	0.0455
		B22	0.0455

4.2 Comprehensive Evaluation Analysis of the Psychology Curriculum System

This paper invites 10 experts related to the project according to the actual situation of the campus psychological curriculum system, according to the indicator evaluation method to score the indicators, in order to determine the cloud digital features required for the cloud model, combined with the evaluation of the comprehensive weight of the indicators calculated in this paper to calculate the second-level indicators, the digital features of the first-level indicators, respectively $C_j\left(Ex_j, En_j, He_h\right)$, and the cloud digital features are obtained by Matlab, and the digital features of the second-level indicator cloud are shown in Table 8, and the digital features of the first-level indicator cloud are shown in Table 9. Based on the digital characteristics of the secondary indicators of the campus psychology curriculum system can be derived for the primary indicator cloud as well as the integrated cloud, the values of the digital characteristics of the integrated cloud of the campus psychology curriculum system are 57.26, 7.65, and 0.57 respectively.

Table 8: The digital characteristics of the secondary indicator cloud

Secondary indicators	Ex	En	He
B1	47.29	7.76	0.49
B2	38.76	6.06	0.26
B3	62.07	5.24	0.38
B4	75.05	9.06	0.64
B5	68.77	5.48	0.76
B6	57.76	8.89	1.08
B7	32.94	10.08	0.93
B8	65.49	8.11	0.48
B9	77.84	7.07	0.94
B10	83.24	8.38	0.79
B11	64.08	8.58	0.68
B12	43.34	8.59	1.04
B13	54.06	9.47	0.94
B14	84.79	7.86	0.47
B15	42.33	6.18	0.86
B16	73.39	9.49	0.46
B17	74.62	12.06	0.86
B18	59.78	10.66	0.66
B19	65.55	12.61	0.72
B20	64.29	11.33	0.71
B21	57.05	10.18	0.82
B22	50.34	9.63	0.89

Table 9: The digital characteristics of the -level indicator cloud

First-level indicator	Ex	En	He
A1	47.59	7.29	0.46
A2	60.84	7.86	0.86
A3	73.59	7.87	0.64
A4	54.38	9.16	0.87
A5	66.16	8.18	0.64
Total	57.26	7.65	0.57

Based on the numerical characteristics of the comprehensive cloud of the campus psychology course system (57.26, 7.65, 0.57), so that n=6000, the comprehensive evaluation cloud of the campus psychology course system is generated by the forward cloud generator, and the comprehensive evaluation cloud of the campus psychology course system is shown in Figure 2. The comprehensive evaluation cloud of the campus psychological program system is between "E"[40, 60) and "F"[60, 80), because the overall obvious bias towards the left endpoint of the interval [40, 60) and part of the value falls into the interval [50, 60), so it can be considered that The campus psychology program system is in the middle primary stage.

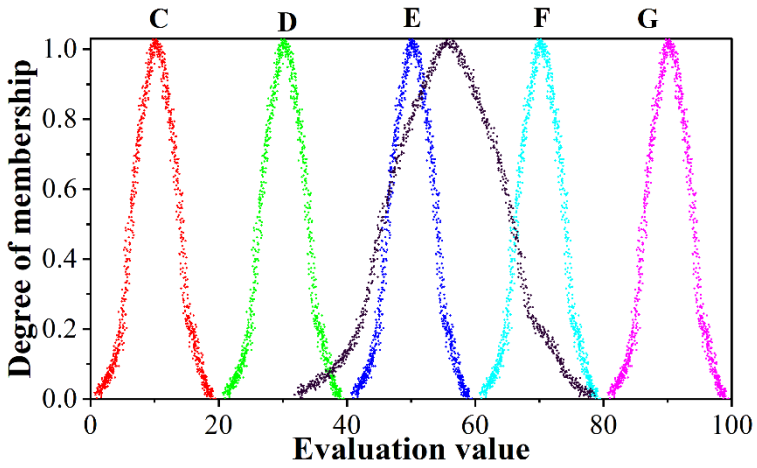

Figure 2: The comprehensive evaluation cloud of the psychological curriculum system

According to the characteristic parameters of cloud model A1 in the table (47.59, 7.86, 0.86), set the number of cloud droplets n=6000, and use MATLAB software to calculate, and get the cloud diagram of cloud model A1 as shown in Figure 3. The brown scatter is the evaluation cloud of the background evaluation A1 in the psychological curriculum system, which visually demonstrates that the evaluation cloud of the background evaluation A1 in the psychological curriculum system is between "E" [40, 60) and "F" [60, 80), and since the brown scatter is overall Since the brown scatter points are obviously biased toward the right end of the interval [40, 60) and some values fall into the interval [40, 50), it can be determined that the background evaluation A1 in the psychological curriculum system is in the middle of the primary stage.

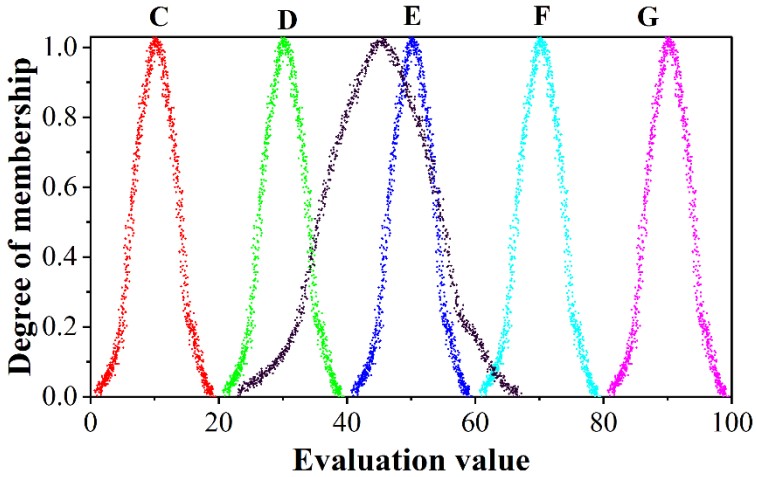

Figure 3: The cloud map of cloud Model A1

Based on the characteristic parameters of cloud model A2 in the table (60.84, 7.29, 0.46), set the number of cloud droplets n=6000, and use MATLAB software to calculate and obtain the cloud diagram of cloud model A2 as shown in Figure 4. The brown scatter is the evaluation cloud of teacher evaluation A2 in the psychological course system, which visually demonstrates that the evaluation cloud of teacher evaluation A2 in the psychological course system is between "E" [40, 60) and "F" [60, 80), due to the brown scatter overall Since the brown scatters are significantly skewed toward the right endpoint of the interval [40, 60) and some of the values fall into the interval [70, 80), it can be determined that the teacher evaluation A2 in the psychological curriculum system is in the middle intermediate stage.

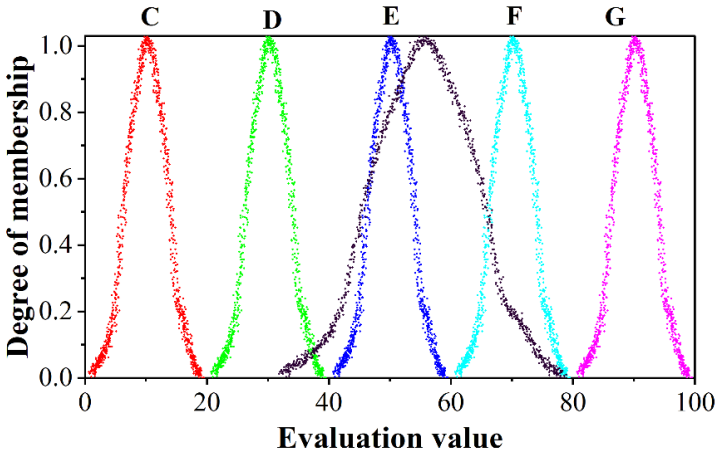

Figure 4: The cloud map of cloud Model A2

Combined with the characteristic parameters of cloud model A3 in the table (73.59, 7.87, 0.64), set the number of cloud droplets n=6000, and use MATLAB software to calculate, we get the cloud diagram of cloud model A3 as shown in Figure 5. The brown scatter is the evaluation cloud of teaching material evaluation A3 in the psychological curriculum system, which intuitively shows that the evaluation cloud of teaching material evaluation A3 in the psychological curriculum system is between "F" [60, 80) and "G" [60, 80), due to the brown scatter overall Since the brown scatter points are obviously biased toward the right endpoint of the interval [60, 80) and some values fall into the interval [60, 70), it can be determined that the evaluation of teaching materials A3 in the psychological curriculum system is in a good primary stage.

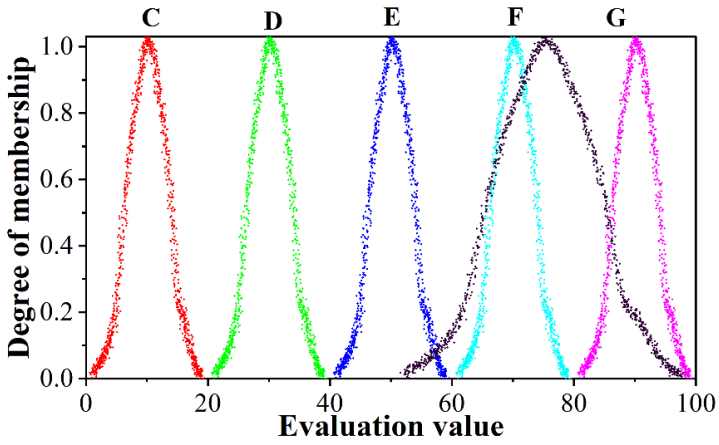

Figure 5: The cloud map of cloud Model A3

Given the cloud model A4 characteristic parameters in the table (54.38, 9.16, 0.87), set the number of cloud droplets n = 6000, using MATLAB software to calculate, to get the cloud diagram of cloud model A4 as shown in Figure 6. The brown scatter is the evaluation cloud of the process evaluation A4 in the psychological course system, which visually shows that the evaluation cloud of the process evaluation A4 in the psychological course system is between "E" [40, 60) and "F" [60, 80), and since the brown scatter is overall Since the brown scatter points are obviously skewed towards the right end of the interval [40, 60) and some values fall into the interval [40, 50), it can be determined that the process evaluation A4 in the psychological curriculum system is in the middle of the primary stage.

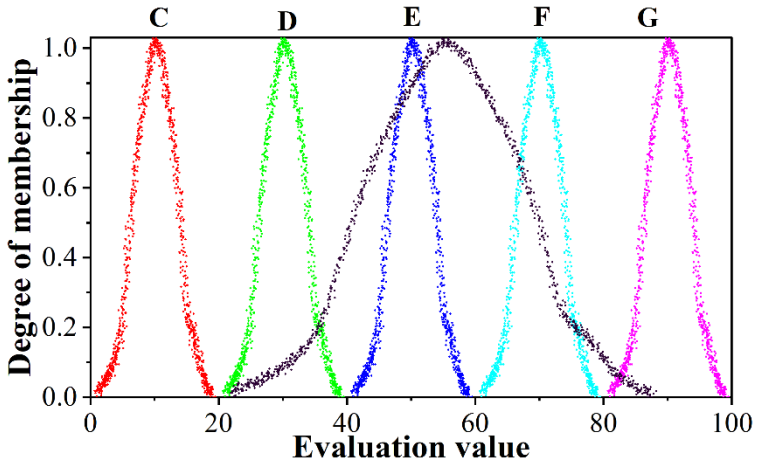

Figure 6: The cloud map of cloud Model A4

According to the characteristic parameters of cloud model A5 in the table (66.16, 8.26, 0.64), set the number of cloud droplets n=6000, and use MATLAB software to calculate, and get the cloud diagram of cloud model A5 as shown in Figure 7. The brown scatter is the evaluation cloud of the effectiveness evaluation A5 in the psychological course system, which visually shows that the evaluation cloud of the effectiveness evaluation A5 in the psychological course system is between "E" [40, 60) and "F" [60, 80), and since the brown scatter is overall Since the brown scatter points are obviously biased toward the right end of the interval [40, 60] and some values fall into the interval [70, 80], it can be determined that the effectiveness evaluation A5 in the psychological course system is in the middle advanced stage.

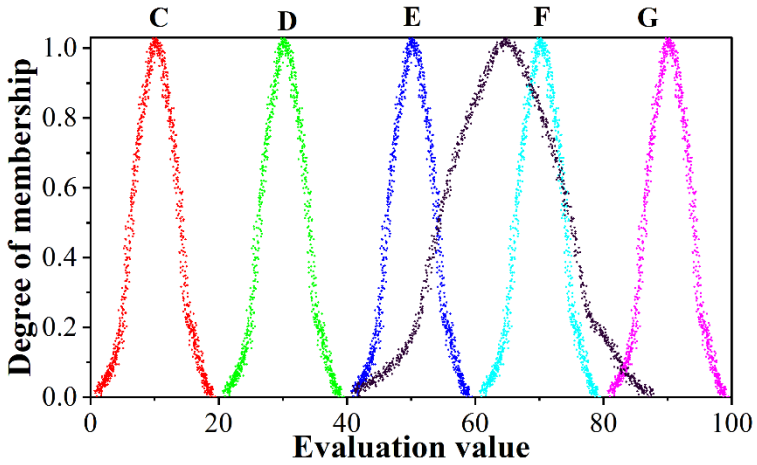

Figure 7: The cloud map of cloud Model A5

Based on the numerical characteristics of the comprehensive cloud and the comparison with the standard cloud map, it is clear that the comprehensive evaluation results of the psychological course system belong to the middle elementary stage, and most of the cloud drops are concentrated in the vicinity of the Ex of 57.26, which is within the range of [40, 60). This indicates that the campus psychological course system under the perspective of positive psychology is a course that integrates knowledge, science, effectiveness, relevance, exemplary, guidance, and operation, and administrators need to focus on the synergistic development of background evaluation, teacher evaluation, teaching materials evaluation, process evaluation, and effectiveness evaluation, and the results of this evaluation are more in line with the actuality, which reveals the level of the current construction of the campus psychological course system.

5 Conclusion

Under the guidance of positive psychology theory, the campus psychological course system is constructed, and then the entropy weight method and cloud model are combined to formulate the evaluation program of the psychological course system in colleges and universities, and the program is analyzed by in-depth exploration, with a view to providing theoretical references for the construction of the campus psychological course system.

(1) On the basis of the research data, the numerical distribution of the evaluation index weights of the campus psychological curriculum system is obtained through the entropy weight method, which visually demonstrates the importance of each index factor to the development of the campus psychological curriculum system construction, and at the same time provides powerful data support for the comprehensive assessment.

(2) The evaluation cloud of the background evaluation A1 in the psychological curriculum system of colleges and universities is between “E” [40, 60) and “F” [60, 80), and the brown scattering point as a whole is obviously at the right endpoint of the interval [40, 60), and some of the values are in the interval [40, 50), i.e., indicating that the background evaluation A1 in the psychological course system is in the middle of the primary stage, and the other indicators are data-based, without repeating the description, to reveal the current situation of the construction of the psychological course system on campus.

About the Author

Meng Zhang was born in Xi'an, Shaanxi, China in 1982. She obtained her master's degree from Xi'an University of Science and Technology, and currently works at the Mental Health Education Center of the Student Affairs Department of Xi'an University of Science and Technology. Her main research direction is college students' mental health education

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