



Research on Policy Evaluation of College Ideological and Political Education based on PMC Index Model

— Take the 100 Policies Published Since the New Era

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Abstract. The policy of ideological and political education in universities is an important bridge connecting the theory and practice of ideological and political education in universities. After quantitative evaluation based on PMC index model, it is found that since the new era, the 100 ideological and political education policy texts issued by China are of good quality, Central policies and local policies are relatively consistent, and the policy reproduction capacity of different regional governments is different. From the perspective of specific scores, policies have obvious advantages in terms of perspective selection, tool selection, function distribution and other aspects, but there are also some significant weaknesses in other indicators. Therefore, we should strengthen forward-looking thinking, optimize the policy process and realize the overall promotion, which is not only the fundamental way to improve the policy system of ideological and political education in colleges and universities, but also the inevitable choice to promote the modernization of ideological and political education governance in colleges and universities.

Keywords: PMC index model; policy of ideological and political education in universities; policy evaluation

1 Introduction

Since the new era, China has increased the tilt of resources for ideological and political education in colleges and universities, and introduced a large number of intensive policies and plans, which have promoted the pattern of ideological and political education in colleges and universities. If these policy texts are scientifically evaluated, they will provide an important reference for future policy development and implementation.

The research on the policy evaluation of ideological and political education in colleges and universities began in 2010, It mainly focuses on the historical combing of policy changes ^[1], Characterization of policy evolution ^[2] and policy effectiveness assessment ^[3]. On the whole, these studies show the characteristics of more qualitative evaluation and less quantitative evaluation, more classification evaluation and less

comprehensive evaluation, which cannot be well applied to the policy analysis of ideological and political education in universities. In 2011, University of Malaysia researcher Ruiz Estrada Proposed the PMC index model ^[4]. This model was applied in various types of public policy evaluations, including care insurance policies ^[5] and intellectual property policy ^[6], etc. This model has overcome the shortcomings of the original policy evaluation model and has been widely recognized by the academic community. Therefore, based on the PMC index model, this study launches the quantitative evaluation of the ideological and political education policy literature in the new era, and tries to put forward suggestions for the development of the ideological and political education policy in universities.

2 The Construction of Policy Analysis Model of Ideological and Political Education in Chinese Universities

On the basis of the classic PMC model, this study constructs the policy evaluation index system of ideological and political education in universities in the new era, which serves as the basis for empirical analysis.

2.1 Text Selection and Feature Recognition

This study took "ideological and political education" as the key word, searched in the network, and obtained 100 relevant policy texts. Among them, 40 are national policy texts and 60 are provincial policy texts.

Firstly, establishing a stop-word library containing meaningless phrases for filtering purposes; secondly, employing the jieba Chinese text segmentation package to tokenize the policy documents; finally, conducting frequency statistics on the processed results. After processing, the top 50 frequent phrases are obtained, including keywords such as "References", "ideological and political theory course", " support", "scientific research", "textbooks" , "society" , "culture" , and so on.

2.2 Variable Setting and Model Building

Combined with the above analysis results and expert opinions, on the basis of the common PMC evaluation index system, this study launched the adaptive improvement for the ideological and political education policies in universities in the new era, and formed 10 first-level variables and 41 second-level variables , as is shown in Table 1.

Table 1. Variable design of PMC evaluation index system for Ideological and political Education policy in the New Era

The first-order variable	the second-order variable
X1 Policy attributes	X1:1 predict X1:2 support X1:3 provide X1:4 propose X1:5 describe ^[7]

X2 Policy time limit	X2:1 long-term X2:2mid-term X2:3 short-term
X3 Policy perspective	X3:1 macroscopic X3:2 microcosmic ^[8]
X4 coverage areas	X4:1 polity , X4:2 economy X4:3 culture X4:4 society
X5 Policy objects	X5:1 colleges and universities X5:2 teachers X5:3Staff X5:4 students X5:5 Others
X6 Policy tools	X6:1 authority tools X6:2 incentive tools X6:3 capacity tools X6:4 symbolic and hortatory tools ^[9]
X7 Policy themes	X7:1Classroom teaching X7:2 Team building X7:3 management of organization X7:4 discipline construction X7:5 Textbook compilation X7:6 scientific research X7:7 practical activity X7:8Network ideological and political X7:9 Mental health education
X8 Policy function	X8:1Thought leading X8:2 organizational planning X8:3 Resource regulation X8:4Standardize control X8:5Assessment and evaluation
X9 policy characteristics	X9:1 The basis is sufficient X9:2 clear division of work X9:3 Detailed planning X9:4 Clear rights and responsibilities ^[10]
X10 Policy disclosure	—

Build a multiple input-output table of these variables, and each secondary variable in the table is consistently weighted, ensuring that each secondary variable can have equal influence on the results , as is presented in Table 2.

Table 2. Multi-input output table

The first-order variable	the second-order variable
X ₁	X _{1:1} , X _{1:2} , X _{1:3} , X _{1:4} , X _{1:5}
X ₂	X _{2:1} , X _{2:2} , X _{2:3}
X ₃	X _{3:1} , X _{3:2}
X ₄	X _{4:1} , X _{4:2} , X _{4:3} , X _{4:4}
X ₅	X _{5:1} , X _{5:2} , X _{5:3} , X _{5:4} , X _{5:5}
X ₆	X _{6:1} , X _{6:2} , X _{6:3} , X _{6:4}
X ₇	X _{7:1} , X _{7:2} , X _{7:3} , X _{7:4} , X _{7:5} , X _{7:6} , X _{7:7} , X _{7:8} , X _{7:9}
X ₈	X _{8:1} , X _{8:2} , X _{8:3} , X _{8:4} , X _{8:5}
X ₉	X _{9:1} , X _{9:2} , X _{9:3} , X _{9:4}
X ₁₀	—

2.3 Index Calculation and Grade Determination

The PMC index size can reflect the overall effect of policy formulation. The specific calculation steps are as follows: First, the value is assigned to each second-order variable according to formula (1); if the policy literature contains the keywords corresponding to the second-order variable, the value is 1; otherwise, 0; since X10 policy has no secondary variable, the first-order variable is directly assigned value; second, use formula (2) to average the second-order variable to get the value of the first-order variable; finally, calculate the sum of the scores of the first-order variable according to formula

(3) to get the PMC score of each policy. Where t is the first-order variable, j is the second-order variable, and n is the number of second-order variables under each first-order variable.

$$X_{t,j} \sim N[0,1] \quad t = 1,2,3, \dots, \infty \tag{1}$$

$$X_t \left(\sum_{j=0}^n \frac{X_{tj}}{T_{tj}} \right) \quad X_t \sim R[0,1] \quad n = 1,2,3, \dots, \infty \tag{2}$$

$$\text{PMC} = \left[X_1 \left(\sum_{i=1}^5 \frac{1i}{5} \right) + X_2 \left(\sum_{j=1}^3 \frac{1j}{3} \right) + X_3 \left(\sum_{k=1}^2 \frac{1k}{2} \right) + X_4 \left(\sum_{l=1}^4 \frac{1l}{4} \right) + X_5 \left(\sum_{m=1}^5 \frac{1m}{5} \right) + X_6 \left(\sum_{n=1}^4 \frac{1n}{4} \right) + X_7 \left(\sum_{p=1}^9 \frac{1p}{9} \right) + X_8 \left(\sum_{q=1}^5 \frac{1q}{5} \right) + X_9 \left(\sum_{r=1}^4 \frac{1r}{4} \right) + X_{10} \right] \tag{3}$$

Since there are 10 primary variables set in this study, the PMC index is valued between 1 and 10, and the policy can be graded according to the score and rating criteria. Among them, 9~10 is excellent, 7~8.99 is good, 5~6.99 is acceptable, and 0~4.99 is unqualified.

3 Computing and Analysis

Based on the policy content evaluation system of ideological and political education policies in universities in the new era, the PMC index of various policies is calculated, and the following results are obtained (due to space limitations, only selected parts are shown in Table 3).

Table 3. Calculation Results of PMC Index of College Ideological and Political Education Policy in the New Era (Part)

	X1	X2	X3	X4	X5	X6	X7	X8	X9	X10	PMC
P1	0.60	0.67	1.00	0.75	0.60	0.75	0.89	0.75	1.00	1.00	8.01
P2	0.40	0.33	0.50	0.50	1.00	1.00	0.89	0.75	0.50	1.00	6.87
P3	1.00	1.00	1.00	0.50	1.00	1.00	0.89	1.00	1.00	1.00	9.39
.....											
P50	1.00	1.00	0.50	0.50	1.00	0.75	0.67	1.00	0.75	1.00	8.17
P51	0.60	0.33	1.00	1.00	1.00	1.00	0.89	1.00	1.05	1.00	8.82
P52	0.80	0.33	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	9.13
P53	0.40	0.67	0.50	0.75	0.20	0.50	0.33	1.00	0.50	1.00	5.85
.....											
P99	0.80	1.00	1.00	1.00	0.80	1.00	1.00	1.00	0.75	1.00	9.35
P100	0.80	0.67	1.00	0.50	1.00	0.50	0.78	1.00	0.75	1.00	7.99

According to the calculation results, the average PMC index of 100 ideological and political education policies in universities in the new era is 7.61, which is a great level. But in the long run, there is still plenty of room for improvement. From the time distribution, the PMC scores showed a developing trend of fluctuating growth. From the perspective of spatial distribution, the score mean has little difference between the national and local levels, and the policy consistency between the central and local policies

is strong. In addition, the quality of documents in North China and South China is relatively high, while central China and northwest China are relatively weak. Governments in different regions pay different attention to ideological and political education in colleges and universities, and the reproduction capacity of corresponding policies is different.

From the perspective of specific indicators, the overall advantages of ideological and political education policies in colleges and universities in the new era are mainly reflected in five aspects: policy perspective, policy tools, policy function, policy characteristics and policy disclosure. At the same time, the ideological and political education policy in colleges and universities in the new era has some shortcomings in terms of policy attribute, Policy time limit, coverage areas, policy objects, policy themes.

4 Results and Optimization Countermeasures

First, decision-makers must base themselves on the present, take a long-term view, study and judge the development situation of ideological and political education in colleges and universities on the basis of accurately grasping the law of ideological and political education and the policy evolution law of ideological and political education policy in colleges and universities, and gradually brew and release reasonable and feasible policy plans, so as to create possibilities for obtaining sustainable policy results.

Second, to enhance the comprehensiveness of policy, policy must conform to the development trend of The Times, overall consideration, comprehensive balance, combined with the actual demand of policy object for the ideological and political education in colleges and universities to provide the whole chain, comprehensive, complete support and guarantee, the tasks of ideological and political education in colleges and universities to make comprehensive and detailed rules, for the development of ideological and political education in colleges and universities with strong impetus.

Finally, to improve the systemic policy, improve the top design of the ideological and political education in colleges and universities as soon as possible, the policy literature from discrete single power to systematic comprehensive integration, build up with Chinese characteristics, time characteristics of the ideological and political education of colleges and universities policy system, establish and improve the policy cooperation mechanism, to promote the development of ideological and political education in colleges and universities.

5 Conclusions

By constructing PMC index model, we scientifically and quantitatively evaluate the ideological and political education policies in colleges and universities in the new era, hoping to provide a new idea and method for the evaluation of ideological and political education policies. According to the evaluation results, this study also gives corresponding improvement suggestions, which can provide a reference for the subsequent formulation of ideological and political education policies in colleges and universities.

However, this study also has some limitations, which will be improved from the following two aspects: (1) the selection of optimized variables. The selection of current variables is still limited, and the dimension of variables needs to be adjusted according to the practice of ideological and political education. (2) Evaluation the whole process of the policy. This study mainly takes the policy text of ideological and political education in universities, which to some extent ignores the evaluation of the policy implementation and the policy effect. In order to complete the comprehensive evaluation of the policy, more attention should be paid to the latter in further research.

References

1. Yu G, Li S.(2019)Text analysis and enlightenment of the historical process of "moral education" education policy in China. *Journal of Southwest University for Nationalities (Humanities and Social Science edition)*,06: 217-222.
2. Yang J. (2021)Research on the policy evolution of Ideological and political education in colleges and universities since the reform and opening up. *The Economic Daily Press*. Beijing. pp.156.
3. Xie A.(2022) Perspective and reflection on the policy effect evaluation of ideological and political education in colleges and universities . *Science and Education Guide*, 14: 62-64.
4. Estrada, R.M.A. (2011). Policy modeling: definition, classification and evaluation. *J. Pol. Model.* 33 (4), 523–536. <https://doi.org/10.1016/j.jpolmod.2011.02.003>.
5. Rong, P., Chen, Q.-K., Xin, L., Chen, K.-X.,(2020). Evaluating the Consistency of Long-Term Care Insurance Policy Using PMC Index Model. *DEStech Transactions on Computer Science and Engineering(msam)*. <https://doi.org/10.26914/c.cnkihy.2020.004593>.
6. Chen L, Gao L.(2024) Research on intellectual property policy evaluation based on the PMC index model . *Technology and Law (Chinese and English)*, 01: 134-148.
7. Zhang Y, Qie H. (2018) Research on quantitative evaluation of "Mass Entrepreneurship and Mass Innovation" policy—— Take 10 information on mass entrepreneurship and innovation policies in 2017 as an example . *Intelligence Magazine*.03: 158-164 + 186.
8. Mao Z, Mei H. (2020)Comparative analysis of AI policies at home and abroad from the perspective of policy tools . *Intelligence Journal*.39: 74-81 + 59.
9. Schneider Anne and Ingram Helen.(1990) Behavioral Assumptions of Policy Tools. *The journal of Politics*. 52:510-529.
10. Zong A. (2021) Research on the policy elements and implementation framework of the quality evaluation of ideological and political education in colleges and universities in the New Era . *Research on Ideological Education*,10: 134-139.

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