



## Optimization of the correction path of college students' online moral misconduct based on ideological education

Na Guo<sup>1,\*</sup>

<sup>1</sup> College of Sciences, Northeastern University, Shenyang, Liaoning, 110819, China

**SUMMARY:** *At present, college students' cyber moral misconduct makes cultivating college students' cyber morality a new issue facing moral education in colleges and universities in the network era. This study analyzes the current situation of college students' online moral misconduct using questionnaire survey method, and determines its influencing factors based on structural equation model, then uses fsQCA method to explore the group path of college students' online moral misconduct modification, and proposes feasible optimization path of college students' online moral misconduct modification. The study found that college students' online moral misbehavior is in the medium-low level, with a score of 2.56, and the loadings of weak awareness of online self-discipline, lack of parental education, imperfect online laws and regulations and supervision, and lagging behind in online ideological education are all greater than 0.67, which are the most critical influencing factors at the individual, family, social and school levels, respectively. There existed four different combinations of ways to influence the correction of college students' cybermoral misconduct behavior, with an agreement and coverage of 0.818 and 0.631, with school-level factors as the core condition. The study proposes the optimization paths of creating cybercivics team, innovating the content of civics courses, cultivating college students' self-discipline and improving campus network regulations to enhance the effectiveness of moral education.*

**KEYWORDS:** *structural equation modeling; fsQCA; cyber ethics; misbehavior modification*

## 1 Introduction

Network moral misconduct is a kind of extraordinary behavior that harms individuals and others and affects the harmony of the network when individuals violate the established social rules and moral constraints in the network environment [1, 2]. As an active group in the current network society, college students, whose psychological development lags behind physiological maturity, are very easily attracted to the network world and tend to adopt negative coping methods such as indulging in the network to escape reality and relieve pressure [3, 4]. This tendency further leads to the negative impact of the Internet on them, which is manifested in the easy formation of cybermoral misconduct behaviors such as loss of self-worth, creation and dissemination of computer viruses, information pollution, Internet pornography and cybercrime [5, 6].

Regarding the research on college students' cybermoral misconduct and its harm, literature [7] examined the influencing factors of cyberbullying behavior and found that psychological factors such as self-esteem, antisocial behavior, and subjective norms significantly shaped their bullying attitudes through the analysis of structural equation modeling, and pointed out that the

\*guona\_1014@163.com

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use of social media played a moderating role in this process. Based on the theoretical framework of problematic behavior, literature [8] explored college students' problematic Internet use behaviors through typical correlation analysis, and found that they were significantly related to internalization problems such as depression and social anxiety, distinguishing them from traditional externalization problem syndromes, and revealing the psychological hazardous characteristics of Internet misbehavior. Literature [9] investigated online academic misconduct among Chinese college students and found that science and male students were more likely to be involved in plagiarism and cheating, and revealed the predictive roles of moral dissonance, hazard perception and academic judgment on the behaviors, emphasizing the prevalence and harmfulness of such misconduct. Literature [10] analyzed the predictors of cyber-aggressive behavior among college students through multiple regression and found that maleness, Type D personality and moral dissonance were significantly associated in both anonymous and non-anonymous environments. Literature [11] examined the association between length of social network use and adverse health and behavioral problems among dental students and found that prolonged use significantly led to behaviors such as musculoskeletal pain, headache, and urinary retention through questionnaire analysis, and emphasized the dangers of social detachment that it triggered. Literature [12] examined the effects of late-night social media use among college students, and based on empirical analyses, it was pointed out that this kind of behavior would reduce sleep quality, exacerbate cognitive fatigue, and lead to a decline in academic performance, and emphasized its potential harm to physical and mental health as an online behavioral disorder. Literature [13] explored unethical behaviors in online learning among college students, identified ten categories of common misconduct and their associations through a survey, and pointed out that the online environment particularly exacerbates the risk of cheating in assessment sessions. Therefore, it is of great significance to study the correction of college students' online ethical misbehavior.

All along, China has been strictly combating network moral misconduct, and by constantly improving network moral laws and regulations, paying attention to network security education, etc. However, due to the anonymity, complexity, and ambiguity of the responsible subject of the network environment, the implementation of these methods is not obvious [14, 15]. Ideological and political education, as the cultivator of college students' ideological and moral sentiments and the guide of behavioral norms, can fundamentally and effectively guide college students to correctly view the network and regulate network behavior, and plays an important role in the correction of college students' network moral misconduct [16, 17]. For the application of ideological and political education in the correction of college students' network moral misconduct, literature [18] analyzed the dual impact of network behavior on their psychology and thoughts through a questionnaire survey of 951 college students, pointing out that positive behaviors can stimulate the potential and promote identity, while misconduct is prone to lead to value distortion and psychological disorders, and explored its revelation value to ideological and political education. Literature [19] analyzes the current situation and challenges of ideological and political and psychological education of college students through questionnaire survey, reveals the problems of strong attractiveness of the network but unclear purpose, weak educational effect due to insufficient professionalism of teachers, etc. It also points out that harmful information in the network has a significant negative impact on physical and mental health, and emphasizes the urgency of strengthening targeted ideological and political education in the network environment. Literature [20] analyzes the challenges and opportunities facing ideological and political education in colleges and universities in the network era, points out the negative impact of the Internet and the urgency of educational innovation, and examines the path of guiding students' values through the network channel in order to enhance the effectiveness of ideological and political education. Literature [21] studied

the challenges of network violence to college students' ideological and political education, pointed out that its anonymity and aggressiveness jeopardize the growth of students, and put forward the strategy of integrating on-line and off-line education, improving media literacy and strengthening the teachers to deal with it. Literature [22] assessed the impact of digital citizenship education on the ethical behavior of social media among Indonesian university students, found that students who received this education showed higher ethical awareness through a mixed-methods approach, and emphasized the importance of incorporating it into the curriculum for shaping responsible online behavior. Literature [23] analyzed the dual impact of network openness and Western cultural impact on college students' values and ideological and political education, studied its development trend based on mathematical models, and proposed countermeasures such as strengthening the construction of network ideological and political platforms and constructing an effective main line of development, in order to bring into play the positive role of online media and enhance the effectiveness of education. However, the current ideological and political education in colleges and universities is faced with the problems of mixed network information, lagging educational content, incomplete evaluation mechanism, etc., and there is still room for optimization of the path of correction of college students' network moral misconduct [24, 25]. This requires colleges and universities to improve the educational environment as a whole, and through the joint efforts of colleges and universities, educators, and educated people, etc., to achieve the optimization of teaching content, teaching methods, teaching evaluation, etc., so as to better promote the role of ideological and political education in the modification of college students' cybermoral misconduct [26-28].

The study selected college students as the research object, and used the questionnaire on college students' cybermoral misconduct and its influencing factors to collect data, analyzed the overall situation of college students' cybermoral misconduct, as well as its statistical differences in displaying gender and majors. Second, structural equation modeling was used to empirically analyze the results of the questionnaire, and the most critical influencing factors at the individual, family, social and school levels were excavated. Once again, fuzzy set qualitative comparative analysis was used to obtain different combinations of factors affecting college students' online moral misconduct modification. Based on the analysis results of the influencing factors and combination paths, the optimization path of college students' online moral misconduct modification is proposed, which is conducive to colleges and universities exploring new methods and paths of college students' ideological and political education.

## 2 Study design

### 2.1 Research ideas

The so-called network moral misconduct refers to the weakening and malfunctioning of network society's moral regulation caused by the lack and inadequacy of basic moral norms in network life, and the resulting chaos and disorder in the behavioral level of the entire network society.

This study investigates and analyzes college students' cybermoral misconduct and its influencing factors to understand the influencing factors that lead to college students' cybermoral misconduct, and conducts multiple group analysis of college students' cybermoral misconduct modification to realize the optimization of college students' cybermoral misconduct modification path.

## 2.2 Questionnaires

### 2.2.1 Questionnaire design

The questionnaire designed for the study consists of two parts: the first part measures the basic situation of college students, and the second part consists of a scale to measure college students' online moral misconduct behavior and influencing factors.

#### (1) Survey of Basic Personal Characteristics

This part of the questionnaire is used to investigate the personal characteristics of the sample and analyze whether the sample meets the research requirements. The survey includes information such as gender and specialty. Among them, the study categorizes majors as liberal arts and science.

#### (2) Measurement Scale of College Students' Cyber Moral Misbehavior and Influencing Factors

In terms of college students' cybermoral misconduct, five aspects were investigated: cyber language misconduct, cyber information processing misconduct, cyber integrity misconduct, cyber moral behavior misconduct, and cyber moral cognitive misconduct. Using a five-point Likert scale, subjects were asked to judge whether and to what extent the stated online behaviors were consistent with their own situations: 1 means "very inconsistent", 2 means "relatively inconsistent", 3 means "between conformity and non-conformity", 4 means "more conformity", and 5 means "very conformity".

For the influencing factors measurement scale, four factors were selected: individual level, family level, social level, and school level. Among them, the individual level includes three dimensions: weak awareness of online self-discipline V1, lack of knowledge of online norms V2, and relatively estranged interpersonal relationships V3, the family level includes two dimensions: low level of parents' online application technology V4, and lack of parents' ideological and ethical education of their children V5, and the social level includes four dimensions: online presentation of social structural contradictions V6, imperfect online laws and regulations V7, inadequate online regulation V8, and moral slippage in the real society V9 four dimensions, and the school level includes five dimensions: imperfect campus network regulations V10, lack of campus network cultural activities V11, lagging behind in network ideological and political education V12, misbehavior of peers on the network V13, and poor teachers' network literacy V14. The scale was filled out using a five-point Likert scale, from "very unaffected" to "very affected", with the option scores ranging from 1 to 5, and the higher the score, the greater the influence of the factor on college students' online ethical behavioral misbehavior.

### 2.2.2 Questionnaire distribution

This paper conducts a questionnaire survey on the situation of college students' online moral misbehavior, a total of 500 questionnaires were distributed, 457 valid questionnaires were recovered, and the validity rate of the questionnaire was 91.4%. The content of the survey involves the basic personal information, the performance of college students' network moral misconduct behavior and its influencing factors and other aspects. Statistically, among the survey respondents, in terms of subject distribution, the proportion of science and arts categories are 54.27% and 45.73% respectively. In terms of gender composition, men accounted for 43.76%, and the proportion of women was slightly higher, accounting for 56.24%.

The KMO test value of this questionnaire is 0.897, and the test value is greater than 0.70, which indicates that the validity structure of this questionnaire is high. The Cronbach's Alpha test value is 0.913, and the questionnaire with a reliability coefficient of greater than 0.8 has a high level of internal consistency, which also proves that the data have a high level of internal

consistency and reliability, and that the questionnaire is highly reliable.

## 2.3 Methods of analysis

### 2.3.1 Structural equation modeling

In the study of college students' online moral misconduct, factor analysis in social science research is mainly applied to analyze the specific influencing factors of college students' online moral misconduct. Factor analysis includes exploratory factor analysis (EFA) and validation factor analysis (CFA). The difference between the two lies in the role that measurement theory architecture plays in the analysis process and the timing of the test. EFA is usually used for pretesting in the development of scales or questionnaires, utilizing a set of samples to generate a factor structure among the measured variables and to establish the construct validity of the questionnaire. CFA, on the other hand, tests the fit of the hypothesized factor structure with another set of samples drawn from the whole population. CFA is a typical application of Structural Equation Modeling (SEM). Structural equation modeling is an important statistical method for quantitative research in contemporary behavioral and social fields, which integrates two statistical methods, factor analysis and path analysis, to test the relationships among explicit, latent, and error variables included in the model, and to obtain the effect of the independent variables on the dependent variables.

Structural equation modeling is divided into measurement modeling and structural modeling; measurement modeling partly refers to the process of exogenous latent variables affecting endogenous latent variables, and structural modeling is the process of latent variables affecting other latent variables. Because latent variables cannot be directly measured in the process of analysis, it is necessary to express latent variables by dividing them into several dimensions with observed variables, and the changes in the corresponding latent variables can be reflected through the data changes of the observed variables in several dimensions. Through the data collection of the observed variables, the data support of the structural equation model is formed. The data are imported into the structural equation model to finally verify the proposed hypothesis of logical relationship.

#### (1) Measurement model

The measurement model contains two aspects of latent variables and observed variables, which can be included in the management of linear function of observed variables, and the specific formula is:

$$X = \xi + \delta \quad (1)$$

$$Y = \eta + \varepsilon \quad (2)$$

where:  $\xi$  belongs to the dependent variable,  $\eta$  belongs to the fruit variable,  $X$  belongs to the vector built by exogenous indicators,  $Y$  belongs to the vector built by endogenous indicators,  $\delta$  i.e. is the measurement error corresponding to the  $X$  variable, and  $\varepsilon$  i.e. is the measurement error corresponding to the  $Y$  variable.

#### (2) Structural model

The structural model can well reflect the interaction relationship formed between latent variables, and the specific calculation formula is summarized as:

$$\eta = B\eta + \Gamma\xi + \zeta \quad (3)$$

where:  $\eta$  represents the endogenous latent variable,  $\xi$  represents the exogenous latent variable,  $B$  belongs to the coefficient matrix built between  $\eta$ ,  $\Gamma$  that is, the coefficient matrix built between  $\xi$  and  $\eta$ , and  $\zeta$  represents the random disturbance term.

The application of structural equation modeling is based on the model construction as the core, the observed variables for the study of data information collection, as much as possible to expand the sample capacity, so that the entire analysis process is optimized accordingly. The application process of structural equation modeling is as follows: (1) theoretical model construction, (2) theoretical model fitting, (3) theoretical model evaluation, and (4) theoretical model revision.

The analysis of factors influencing college students' online moral misconduct adopts the two factor analysis methods mentioned above, with CFA as the main method, and applies SPSS statistical analysis software and AMOS, a common analysis software for SEM, to assess the degree of relationship between the factor constructs and their indicator variables.

### 2.3.2 Qualitative comparative analysis methods

In this paper, qualitative comparative analysis (QCA) is chosen to analyze the combinatorial utility of the factors influencing college students' online moral misconduct. Qualitative Comparative Analysis (QCA) is a comparison method based on Boolean algebra with set theory as the key operation logic, which mainly focuses on the situation where multiple related conditions are combined differently to produce the same result, and utilizes the core idea of group analysis.

Boolean algebra is the dichotomization of variables in QCA, where 0 and 1 are used to represent the occurrence or non-occurrence of a variable, with 0 or the lowercase letter ( $a$ ) indicating that the variable does not occur, and 1 or the uppercase letter ( $A$ ) indicating that the variable occurs. In addition, different connectives are used to represent relationships between variables. “\*” in Boolean algebra represents the “and” relationship between variables, for example,  $A * B * C = Y$  means that the simultaneous existence of the conditions  $A$ ,  $B$ , and  $C$  leads to the result  $Y$ . occurs. The “+” denotes the relationship of “or” between variables, for example,  $A + B + C \rightarrow Y$  indicates that the existence of any one of the conditions  $A$ ,  $B$  and  $C$  will cause the result  $Y$  to occur. And “=” and “ $\rightarrow$ ” can indicate that the variables “cause” the relationship of the result. Conditional variables and outcome variables are symbolically connected to form a complete path. Finally, the causal relationship between conditional variables and outcome variables that QCA focuses on is the multiple concurrency relationship. The so-called multiple concurrency relationship is that different combinations of causal conditions can lead to the same outcome, e.g.,  $A * B * C + D * E * F = Y$  means that the simultaneous existence of the three conditions  $A$ ,  $B$ , and  $C$  will lead to the occurrence of outcome  $Y$ , whereas the existence of the conditions  $D$ ,  $E$ , and  $F$  will also lead to the occurrence of outcome  $Y$ . cause the outcome  $Y$  to occur. The asymmetry of QCA causality, however, means that the combinations of causes for the occurrence and non-occurrence of the outcome are different, i.e., the fact that  $A$  leads to the occurrence of outcome  $Y$  does not imply that non- $A$  can lead to the non-occurrence of outcome  $Y$ , and a recombination of the conditional variables needs to be deduced in order to explore the non-occurrence of outcome  $Y$ .

Currently QCA methods can be categorized into three types depending on the type of variable: first, clear set qualitative comparative analysis (csQCA), which only applies to condition and outcome variables that are both dichotomous and must be calibrated to a value of 0 or 1 for the variable, e.g., if the gender variable is a dichotomous variable for males and

females, males are assigned a value of 1, while females are assigned a value of 0. The second is multi-valued set qualitative comparative analysis (mvQCA), which is applicable to condition and outcome variables that are multi-categorical and can be categorized to transform fixed-distance variables into categorical variables to be included in the study, and the variables can be assigned multi-values such as 0, 1, 2, and so on. Thirdly, fuzzy set qualitative comparative analysis (fsQCA), which assigns affiliation values in the interval of 0~1 to variables or continuous variables that cannot be clearly binary classified, so as to deal with the problem of data degree change and partial affiliation.

In this paper, we mainly use fuzzy set qualitative comparative analysis (fsQCA), compared with the clear set which can only be set to 0 and 1, fuzzy set qualitative comparative analysis can more accurately describe the case variables, and better reflect the specific information of the variables in the real situation. The operation steps of the QCA method are as follows: Variable selection and model construction - Case sample selection - variable data calibration - necessity analysis - truth table construction - conditional combination analysis - Robustness test.

### 3 Empirical analysis

#### 3.1 Descriptive statistical analysis

##### 3.1.1 General

Based on the questionnaire data on the overall status of college students' online moral misconduct, the overall status of college students' online moral misconduct is shown in Figure 1. Among them, X1~X5 represent online language misbehavior, online information processing misbehavior, online integrity misbehavior, online moral behavior misbehavior, and online moral cognition misbehavior, and their scores are 2.80, 2.65, 2.50, 2.39, and 2.47, respectively, and the overall scores of the overall scores of college students' online moral misbehavior are 2.56 points. Since each item in the adopted questionnaire adopts a 5-level scoring system, the median value of 3 is taken as the reference value, and it can be seen that the college students' cyber moral misconduct behavior belongs to the range of medium to low degree.

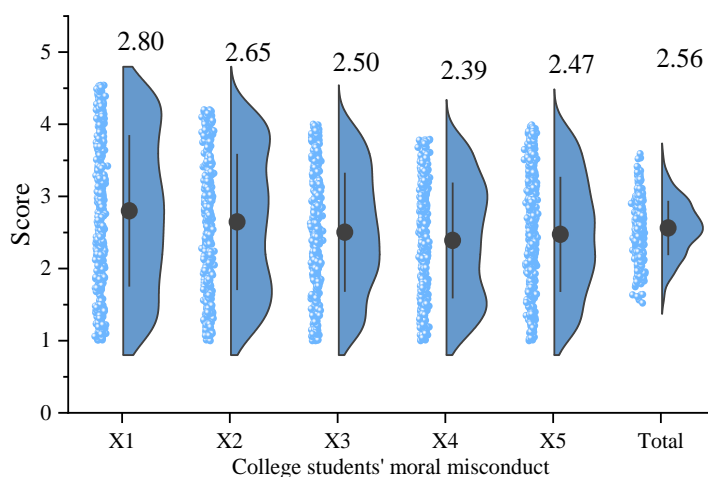


Figure 1: The overall situation of the moral misconduct of college students

##### 3.1.2 Analysis of variances

The differences in gender of the dimensions of college students' online moral misconduct behavior are shown in Table 1. The status of the differences in the dimensions of this

questionnaire in terms of gender, the Sig value of each dimension are all greater than the standard 0.05, so it shows that there is no difference in the dimensions of college students' online moral misconduct behavior in terms of gender, so the original hypothesis can not be rejected.

*Table 1: The difference in gender of the moral misconduct of college students*

Misconduct	Gender	N	Mean	SD	t	Sig.
Online language	Male	200	2.82	2.815	0.536	0.514
	Female	257	2.78	2.127		
Network information	Male	200	2.67	2.284	0.774	0.428
	Female	257	2.63	2.352		
Network integrity	Male	200	2.51	3.244	0.693	0.311
	Female	257	2.49	2.587		
Network behavior	Male	200	2.41	2.475	0.039	0.763
	Female	257	2.37	2.336		
Network moral cognition	Male	200	2.48	2.278	0.407	0.586
	Female	257	2.46	2.684		

The differences between the dimensions of college students' cyber moral misconduct behavior on majors are shown in Table 2. The Sig value of each dimension of the dimensions of college students' online ethical misconduct behavior is greater than 0.05, which means that there is no difference between the dimensions in terms of specialty, so the original hypothesis is rejected.

*Table 2: The difference in major of the moral misconduct of college students*

Misconduct	Major	N	Mean	SD	t	Sig.
Online language	Liberal arts	248	2.83	2.215	-1.399	0.106
	Science	209	2.77	2.447		
Network information	Liberal arts	248	2.64	2.891	-0.931	0.387
	Science	209	2.66	2.596		
Network integrity	Liberal arts	248	2.52	2.285	-0.056	0.225
	Science	209	2.48	2.542		
Network behavior	Liberal arts	248	2.38	2.354	-1.023	0.234
	Science	209	2.4	2.368		
Network moral cognition	Liberal arts	248	2.49	2.762	-0.323	0.612
	Science	209	2.45	2.514		

## 3.2 Analysis of Impact Factors

### 3.2.1 Model testing

CFA analysis was used to verify whether the theoretical model of the composition of factors influencing college students' online ethical misconduct was fit to the sample, to determine the key influencing factors of each factor construct, and the summary of the basic fitness test was shown in Table 3, and the overall fitness test was conducted on the structural equation model, and the summary of the overall model fitness test was shown in Table 4. The error variances are all positive, the factor loadings are 0.58-0.84, and the standard errors are 0.026-0.175, and the test results show that the basic fitness indicators of the model meet the test criteria. In the overall model fitness index, the degree of freedom of the model is 425, and the chi-square value

of the overall model fitness is 286.396, with a significance probability value of  $p = 0.135 > 0.05$ , which indicates that the hypothesized model and the sample data can not be fitted. Meanwhile, all other model fitness indicators meet the fitness criteria, indicating that the hypothesized model can be accepted.

Table 3: Basic suitability test summary

Evaluation project	Test data	Model suitability judgment
There is no negative error variation	>0	Yes
Whether the load is between 0.5-0.95	0.58-0.84	Yes
There is no big standard error	0.026-0.175	Yes

Table 4: The overall model suitability test summary

Statistical inspection quantity	Fitness standard	Test data	Model suitability judgment
Absolute fitness index			
<i>CMIN</i>	$p > 0.05$	286.396, $p = 0.135$	Yes
<i>RMR</i>	$< 0.05$	0.031	Yes
<i>RMSEA</i>	$< 0.08$	0.062	Yes
<i>GFI</i>	$> 0.90$	0.928	Yes
<i>AGFI</i>	$> 0.90$	0.911	Yes
Value-added fitness index			
<i>NFI</i>	$> 0.90$	0.947	Yes
<i>IFI</i>	$> 0.90$	0.916	Yes
<i>TFI</i>	$> 0.90$	0.929	Yes
<i>CFI</i>	$> 0.90$	0.938	Yes
Contracted fitness index			
<i>PGFI</i>	$> 0.50$	0.678	Yes
<i>PNFI</i>	$> 0.50$	0.785	Yes
<i>PCFI</i>	$> 0.50$	0.747	Yes
<i>CN</i>	$> 200$	224	Yes
<i>CMIN/DF</i>	$< 3.00$	2.875	Yes

### 3.2.2 Model analysis

The standardized estimates of the model are shown in Figure 2, where the values of the paths between the latent factors and the measured variables are standardized regression coefficients, which are called factor loadings in the validated factor analysis, indicating the regression coefficients of the observed variables predicting the latent variables. The value of factor loadings gives an idea of the relative importance of the measured variables in each of the latent factors. Higher values of factor score weights indicate greater influence of the observed variables on the latent variables.

Taking the personal level -> V1 as an example, its factor loading is 0.725, which means that the direct effect value of the potential factor “personal level” on the measurement indicator “weak awareness of online self-discipline V1” is 0.725. At the individual level, the factor loading of V2 is relatively high at 0.798, so the lack of knowledge of cyber ethics V2 is the most critical influencing factor at the individual level. By analogy, at the family level, the lack of parents' ideological and moral education for their children V5 is the most critical influence factor, with a factor loading of 0.763. At the social level, the imperfection of cyber laws and regulations V7 and the lack of cyber regulation V8 are the most critical influences, with factor

loadings of 0.786 and 0.788. At the school level, the lagging behind of cyber civic education V12 is the most critical influence factor, with factor loading of 0.675.

The path value between potential factors is the correlation coefficient between two potential factors, for example, the correlation coefficient between two potential factors of “individual level” and “school level” is 0.629, which means that there is a significant covariation relationship between the two, and the influence of each other should be taken into account in decision-making. The influence of each other should be taken into account in decision-making.

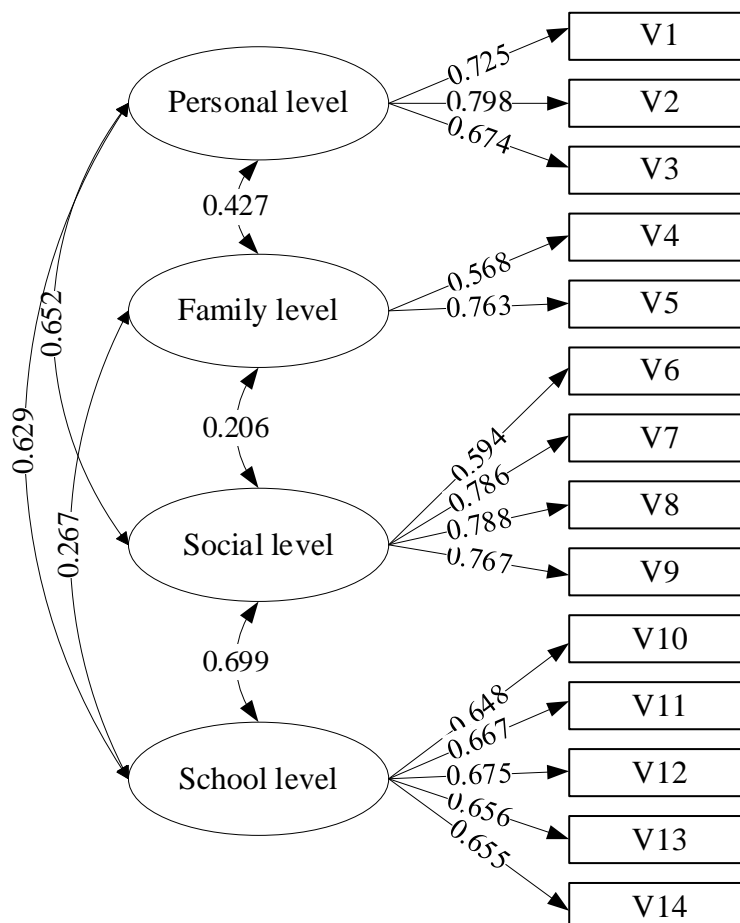


Figure 2: Standardized estimate of the model

### 3.3 Multi-Configuration Analysis

After the analysis of structural equation modeling, in order to explore the influence of different combinations of influencing factors on college students' online moral misconduct, the study used fsQCA to conduct multiple grouping analysis, so as to determine whether the four influencing factors can form a combination of variables that can correct college students' online moral misconduct.

#### 3.3.1 Necessity analysis

In order to test whether the four influencing factors can individually affect college students' online moral misconduct behavior modification, i.e., whether a single variable can fully explain college students' online moral misconduct behavior. This is to ensure that the subsequent conditional combination analysis is carried out properly, and to test whether the modification of college students' online moral misconduct is influenced by a combination of factors. In

fsQCA, we observe the degree of agreement and coverage through the operation of “necessary condition analysis”, and the degree of agreement is the key index for judging whether a variable is a necessary condition or not. Coverage refers to the coverage of the influence factors on the correction of college students' online moral misconduct. The more important of the two indicators is the degree of coincidence, which is greater than 0.8 in the sufficiency criterion, indicating that the variable is a sufficient condition, and greater than 0.9 represents that the factor is a necessary factor affecting college students' online moral misconduct behavior modification, and if the factors are all less than 0.8 indicates that each factor is neither a sufficient condition nor a necessary condition, i.e., it is the different ways of combining the factors that are the important reasons.

The analysis of sufficient and necessary conditions in this study is shown in Table 5. The highest degree of agreement at the individual level is 0.747, which is less than 0.9, indicating that the four influencing factors are not necessary conditions for correcting college students' online moral misbehavior. At the same time, the degree of agreement of all 4 variables is less than 0.8, indicating that the 4 influencing factors are also not sufficient conditions for the correction of college students' online moral misconduct behavior. That is, none of the 4 influencing factors affects the correction of college students' online moral misconduct alone, but rather affects the correction of college students' online moral misconduct multivariately by joining with other variables.

*Table 5: The full condition and the necessary condition analysis of the conditional variables*

Variable	Consistency	Coverage
Personal level	0.747	0.636
~ Personal level	0.524	0.637
Family level	0.713	0.563
~ Family level	0.678	0.735
Social level	0.738	0.541
~ Social level	0.688	0.592
School level	0.726	0.717
~ School level	0.575	0.684

### 3.3.2 Conditional combination analysis

The fsQCA software was utilized to complete the standard analysis and obtain the corresponding complex, parsimonious, and intermediate solutions. According to the configuration of antecedent conditions of the intermediate and parsimonious solutions to improve the presentation of the research results, the core and auxiliary conditions are presented using intuitive symbols, respectively. The combinations of the configurations of the influencing factors are shown in Table 6, where • indicates that only the intermediate solution has the condition, ● indicates that both the intermediate solution and the parsimonious solution have the condition, ⊙ indicates that only the intermediate solution contains the antithesis, i.e., “not”, of the condition, and ○ indicates that both solutions have the condition in the opposites.

The overall path fit was 0.818, which is greater than 0.8, indicating that all four combination constructs affecting the modification of college students' online ethical misbehavior are acceptable, and the overall coverage was 0.631, suggesting that 63.1% of the cases were the result of these combination constructs. Further analysis revealed the following:

First, school-level factors are the core conditions in all 3 combined constructs, which are the core conditions affecting the correction of college students' cybermoral misconduct and should be focused on, i.e., if you want to correct college students' cybermoral misconduct, you

should improve the campus cyber rules and regulations, and enhance cybercivics education and teachers' cyber literacy, etc.

Second, Path 2 has a higher unique coverage rate of 0.114 compared to the other three paths, indicating that Path 2 is a more typical combination of constructs in the case. The path is centered on school-level factors and contains four factors, indicating that the correction of college students' cybermoral misbehavior requires the joint efforts of individuals, families, society and schools.

Table 6: The configuration of the influencing factors

Variable	Influence factor combination configuration			
	Combination 1	Combination 2	Combination 3	Combination 4
Personal level	•	•	⊙	●
Family level	•	•	○	•
Social level		⊙	•	•
School level	●	●	●	
Consistency	0.905	0.915	0.907	0.904
Raw coverage	0.422	0.375	0.441	0.435
Unique coverage	0.056	0.114	0.010	0.026
Solution coverage	0.631			
Solution consistency	0.818			

## 4 Optimizing pathways

According to the previous analysis, it is known that the school level is the core condition for college students' online moral misconduct behavior modification. Therefore, this chapter explores the optimization path of college students' online moral misconduct modification based on the network ideological education in colleges and universities.

### 4.1 Creating an Internet Civics Team

First of all, to create a network ideology team and rationalize the network ideology management system. The requirements for building a network team are to be familiar with the current situation of college students' network morality, to have a high level of network use, and to have a guaranteed ideological quality, based on which three levels of network teams are built. The first level is the full-time ideological team, who should be familiar with network technology, make good use of network tools, be young and energetic, and be able to guide the network behavior of college students. The second level is the professional course teachers' team, who are required to integrate the content of network moral education in classroom teaching, so that the professional course teachers can become an important force for the cultivation of college students' network morality. The third level is the construction of peer group team. Colleges and universities should support students to build their own websites and webpages to achieve the effect of self-education through self-management and self-service.

### 4.2 Innovative Civics Program Content

Secondly, innovate the content of the Civic and Political Science courses and improve the moral education function of the Civic and Political Science courses. Integrate the cultivation of college students' network morality into the Civic and Political Science Courses, especially into the educational contents of the Civic and Political Science Courses, to influence the ideological and

moral qualities of the college students, and to guide the college students to correctly understand the network technology, correctly utilize the network tools, correctly cultivate the network mentality, and correctly guide the realistic behaviors.

### **4.3 Fostering self-discipline among university students**

Then, cultivate college students' awareness of self-discipline and realize self-regulation in the network world. Self-discipline for college students is both a requirement and a kind of ability quality. In the virtual world of network morality, external norms appear to be limited constraints, in order to constrain human morality, personal self-discipline is more important. For college students, the virtual nature of the network world, so that they experience the individuality, but also recognize the importance of self-discipline in the network world, self-discipline as a kind of self-education, in the cultivation of network morality is more important, college students pay attention to their own growth, the achievements have a strong sense of honor and pride, through their own efforts to achieve success will make college students more cherish.

### **4.4 Improve campus network regulations**

Finally, improve the construction of campus network rules and regulations to standardize network behavior. Developing a perfect campus network management system is a focus that cannot be ignored in the cultivation of college students' network ethics. Therefore, it is necessary to pay attention to the supervision of campus network culture, strengthen the information management of campus network, improve the mechanism of guiding public opinion in campus network, and establish the comprehensive coordination mechanism, rapid emergency response mechanism and shielding mechanism of campus network, in order to enhance the quality of management of campus network, and to improve the students' ability of self-management and constraint. And according to the characteristics of their respective institutions, establish corresponding network moral evaluation system, strengthen students' awareness of network morality, standardize network behavior, in order to create a green campus network.

**5. Conclusion**

On the basis of investigating the current situation of college students' cybermoral misconduct, this study combines structural equation modeling to mine its influencing factors, and uses fuzzy set qualitative comparative analysis to explore the group path of college students' cybermoral misconduct modification, so as to optimize the path of college students' cybermoral misconduct modification.

The overall score of college students' online moral misconduct is 2.56, which is in the middle-low level, and there is no significant difference between the dimensions in terms of gender and major, and the Sig values are all greater than 0.05. The most critical influencing factors in the personal, family, social and school levels are: weak awareness of online self-discipline, lack of parental education, imperfect online laws and regulations and supervision, and lagging behind in cyber ideology education, with the factor loadings of 0.6 and 0.7 respectively. The factor loadings were 0.675~0.798. The grouping analysis found that a total of four grouping paths could achieve the correction of college students' online moral misconduct, covering 63.1% of the cases, with an agreement of 0.818, and the factors at the school level were the core conditions of the combined configuration. In particular, the only path with the highest coverage rate encompasses factors at the individual, family, social and school levels.

In order to effectively correct college students' online moral misconduct, this paper proposes an optimization path from the dimension of ideological education. It is necessary to build a network ideology and politics team, integrate the resources of the ideology and politics courses, build a good campus network rules and regulations, and make a concerted effort to prompt college students to consciously abide by the moral norms, to enhance the relevance and

effectiveness of ideological and political education in colleges and universities, so as to improve the level of college students' network moral self-discipline.

## About the Author

Na Guo was born in Fuxin, Liaoning, P.R. China, in 1983. She obtained a Master's degree in Management from Northeastern University in China. She is currently employed at the College of Sciences, Northeastern University. Her main research direction is ideological and political education for college students.

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