

# Research on the Competency Model Construction of the College Counselor with Excellent Performance

Li Guang

Baoshan University, Baoshan Yunnan, 678000

**Abstract**—It is an important demand of the ideological and political education in colleges to strengthen the development of college counselor's professional ability and cultivate excellent counselor cadre team. Through using questionnaire, interview, content analysis, factor analysis and structural equation modeling, it is proved that the construction and verification of the competency model of the college counselor is of the second-order four-factors first-order eight-factors construct and is of good fitting degree.

**Keywords**—College counselor; Excellent performance competency model; HRM; Structural equation modeling

## I. INTRODUCTION

Professor David McClelland at Harvard University believes that competencies are personal features that distinguish the outstanding achievers from ordinary people at work, including motivation, traits, attitudes or values, knowledge, skills, and so on<sup>[1]</sup>. Bray et al. concluded twenty-five important factors that influence the success of college counselors [1]. In China, Yang Jiping, Mao Xia, Chen Yansong and so on adopted different methods to explore the competency structure of the counselor. The present situation of the ideological and political education in colleges and universities in our country is serious, and the exploration of the competency model construction of the

counselor with excellent performance is of great significance to enhance the professional level of the counselor team in China's colleges and universities and to promote the construction of the college counselor team.

## II. COMPETENCY MODEL CONSTRUCTION OF THE COLLEGE COUNSELOR WITH EXCELLENT PERFORMANCE

### A. Dictionary of Competency of the College Counselor with Excellent Performance

A questionnaire is sent to many QQ groups of counselors, student affairs and students and collected and the participants are required to list 10-15 entries that can summarize the competency of the college counselor with excellent performance. 83 entries are obtained after being sorted, merged and classified. One of the leaders of Student Affairs, counselors, students in charge of the league and student work, masters of psychology with professional qualifications of middle vocational schools and masters of ideological and political education are invited respectively to merge and classify the entries of the competency of the college counselor back to back and entries recognized by at least three persons are selected and then 25 entries are obtained. Refer to Table 1.

TABLE I. ENTRY OF COMPETENCY OF THE COLLEGE COUNSELOR WITH EXCELLENT PERFORMANCE

Dimensions	Entries
Professional Standards	Knowledge and skills (including professional knowledge and skills, integrated knowledge and skills)
Competence	Interpersonal communication, relationship building, self-control, teamwork, team leadership, perception, innovation ability, learning ability, communication ability, execution force
Self-driven	Achievement orientation, initiative, self-confidence, self-cognition, optimism, agreeableness, openness, and ambition
Professional Conservation	Responsibility, cultivate others, care about others, organize identification, empathy, professional accomplishment

According to the above table, the competency coding dictionary of the college counselor with excellent performance is constructed with reference to the competency dictionary in some literature. Each entry consists of a name, definition, level,

and behavior description. The level represents the intensity or complexity of the behavior. The behavior description of different levels is mainly the representative behavior in students' work.

About the author: Li Guang, male, lecturer of Baoshan University, is mainly engages in the research on human resource management psychology, and ideological and political education.

### III. EXPLORATION OF THE COMPETENCY OF THE COLLEGE COUNSELOR WITH EXCELLENT PERFORMANCE

#### A. The subject

The standards of the counselor are as follows: having been engaged in the counselor work for more than two years; having received praise or reward from the school level and above in the last five years; having obtained excellent performance in the year-end assessment of the school; having published thesis related to counselors or the work of counselors; having presided over scientific research projects; and having a good reputation among teachers and students. A total of 100 case samples were obtained by collecting and sorting.

#### B. Research materials and tools

The self-compiled Interview Outline for the Key Events of the College Counselor with Excellent Performance is adopted for the interview and the text is analyzed with reference to the Competency Dictionary of the College Counselor with Excellent Performance. The software SPSS15.0 is adopted for relevant analysis after the encoding, analysis and assignment.

#### C. Competency factors encoding

2 members of the research group are invited to conduct the formal encoding work after being trained according to the Competency Dictionary of the College Counselor with Excellent Performance. Each coder analyzes and identifies the

level, frequency and average score of the competency indexes shown in each event text independently.

#### D. Data sort out and analysis

Sort the encoding data of the competency and adopt SPSS15.0 to systematically summarize the three indexes of the highest score, the average score and the frequency of each competency factors.

#### E. Construct the competency model of the college counselor with excellent performance

According to the statistical analysis of the highest score, the average score and the frequency indexes of the competency factors [2], the factors that have significant difference in each index are selected, and the competency model of the college counselor with excellent performance is constructed.

### IV. RESULTS ANALYSIS

Spencer believes that when constructing the competency model, it can be explored according to the competency factors of the frequency, the average score or the highest score<sup>[2]</sup>. In the research, the statistical situation of three indexes is comprehensively analyzed by eliminating the indexes with excessive missing values after the encoding for the competency index.

#### A. Relevant statistics of the highest score index

TABLE II. THE HIGHEST SCORE STATISTICS OF THE COMPETENCY OF THE COLLEGE COUNSELOR WITH EXCELLENT PERFORMANCE

Interpersonal Communication												
Achievement orientation	0.067											
Initiative	0.003	0.000										
Self-control	0.001	0.444	0.022									
Self-confidence	0.119	0.001	0.000	0.200								
Cultivate others	0.615	0.000	0.045	0.382	0.000							
Teamwork	0.001	0.042	-	-	0.004	0.232						
Team leadership	0.667	0.112	0.045	-	0.920	0.663	0.011					
Care about others	0.000	0.000	0.000	-	0.001	0.000	0.000	-				
Perception	0.216	0.283	0.000	0.382	0.824	0.001	-	0.673	0.000			
Learning ability	0.386	0.000	0.132	0.000	0.000	0.000	-	-	0.328	0.010		
Empathy	0.077	0.000	0.000	0.465	0.000	0.192	-	0.667	0.035	0.000	0.010	
Knowledge & skills	0.001	0.000	0.008	0.736	0.000	0.004	-	0.002	0.258	0.021	0.003	0.000

<sup>a</sup> Note: "-" indicates the missing value, similarly hereinafter.

According to the statistics of the highest score index, there are 13 indexes that enter into the analysis which include interpersonal communication, achievement orientation, initiative, self-control, self-confidence, cultivate others, teamwork, team leadership, care about others, perception, learning ability, empathy and knowledge and skills. The result

shows that the competency indexes whose relationship with others is above the level of  $p < 0.05$  with significant difference and exceeds 6 include the 9 indexes of achievement orientation, initiative, self-confidence, cultivate others, care about others, perception, learning ability, empathy and knowledge and skills.

### B. Relevant statistics of the average score index

TABLE III. THE AVERAGE SCORE STATISTICS OF THE COMPETENCY OF THE COLLEGE COUNSELOR WITH EXCELLENT PERFORMANCE

Interpersonal Communication													
Achievement orientation	0.670												
Initiative	0.003	0.000											
Self-control	0.132	0.004	0.633										
Self-confidence	0.119	0.001	0.000	0.000									
Cultivate others	0.615	0.000	0.045	0.000	0.000								
Teamwork	0.001	0.042	-	-	0.004	0.232							
Team leadership	-	0.112	0.045	-	0.920	0.663	-						
Care about others	-	0.000	0.000	-	0.001	0.000	0.011	-					
Perception	0.285	-	0.000	0.039	0.968	0.001	0.000	0.977	0.000				
Learning ability	0.386	0.000	0.132	0.000	0.000	0.000	0.222	-	0.328	0.003			
Empathy	0.300	0.000	0.000	0.001	0.000	0.236	-	0.667	-	0.000	0.052		
Knowledge & skills	0.001	0.000	0.008	0.725	0.000	0.004	-	0.002	0.258	0.000	0.003	0.000	

According to the statistics of the average score index, there are 13 indexes that enter into the analysis which include interpersonal communication, achievement orientation, initiative, self-control, self-confidence, cultivate others, teamwork, team leadership, care about others, perception, learning ability, empathy and knowledge and skills. The result shows that the competency indexes whose relationship with

others is above the level of  $p < 0.05$  with significant difference and exceeds 6 include the 8 indexes of achievement orientation, initiative, self-control, self-confidence, cultivate others, perception, empathy and knowledge and skills.

### C. Relevant statistics of the frequency index

TABLE IV. THE FREQUENCY STATISTICS OF THE COMPETENCY OF THE COLLEGE COUNSELOR WITH EXCELLENT PERFORMANCE

Interpersonal Communication													
Achievement orientation	0.003												
Initiative	0.023	0.004											
Relationship building	0.085	0.600	0.600										
Self-control	0.200	0.018	0.000	-									
Self-confidence	0.001	0.531	0.000	0.353	0.000								
Cultivate others	0.003	0.000	0.023	0.869	0.051	0.000							
Care about others	0.000	0.000	0.023	-	-	0.000	0.000						
Perception	0.008	0.197	0.220	0.986	0.107	0.000	0.001	0.000					
Learning ability	0.053	0.000	0.002	-	0.001	0.000	0.000	0.000	0.056				
Self-cognition	0.407	0.057	0.440	-	-	0.513	0.140	-	0.988	0.117			
Organize identification	0.119	0.936	0.335	0.024	0.167	0.396	0.564	-	0.911	-	-		
Empathy	0.023	0.310	0.008	0.373	0.000	0.002	0.655	-	0.389	0.003	0.516	1.000	
Knowledge & skills	-	-	0.067	0.279	0.782	0.003	0.000	0.402	0.008	0.308	0.161	0.972	0.250

According to the statistics of the frequency index, there are 14 indexes that enter into the analysis which include interpersonal communication, achievement orientation, initiative, relationship building, self-control, self-confidence, cultivate others, care about others, perception, learning ability, self-cognition, organize identification, empathy and knowledge and skills. The result shows that the competency indexes whose relationship with others is above the level of  $p < 0.05$  with

significant difference and exceeds 6 include the 8 indexes of interpersonal communication, achievement orientation, initiative, self-confidence, and cultivate others, perception, learning ability and knowledge and skills.

#### D. Competency model of the counselor with excellent performance

According to the highest score, the average score and the frequency indexes, competency factors with at least two indexes with significant relevance are selected and the competency model of the counselor with excellent performance obtained includes achievement orientation, initiative, self-confidence, cultivate others, perception, learning ability, empathy and knowledge and skills [3].

#### E. Reliability analysis

The consensus result of the coders' independent encoding is the key index measure the reliability of the construction of the competency model, which is mainly tested from the classification consistency. The explanation is made of the percentage that the numbers of the consensus classification of a same text take to the total numbers among the raters. The calculation formula is:  $CA = (2 \times T1 \cap T2) / (T1 \cup T2)$ , among which, T1 represents the encoding numbers of the coder A, T2 represents the encoding numbers of the coder B,  $T1 \cap T2$  represents the numbers of consensus encoding classification of the codes, and  $T1 \cup T2$  represents the sum of the encoding numbers of the coders. In the research,  $T1=1120$ ,  $T2 = 1069$ ,  $T1 \cap T2 = 934$ ,  $CA = 85.3\%$ .

#### F. Validity analysis

In the QQ group of the college counselors, 7 counselors are invited to analyze 8 dimensions according to the standards of counselors with excellent performance. According to the feedback, the consensus reached 100% which shows that the 8 competency dimensions of the college counselor with excellent performance have good validity.

### V. VERIFICATION OF THE COMPETENCY MODEL OF THE COLLEGE COUNSELOR WITH EXCELLENT PERFORMANCE

#### A. Method and Process

##### 1) Research tools

Compile the Questionnaire of Competency of the College Counselor with Excellent Performance according to the competency of the counselor with excellent performance and the questionnaire includes items on demographic variables and competency dimensions. The compilation of the questionnaire is discussed and completed by 3 research group members and 3 student staffs with different subject background are invited to take part in the revision work and 3 experts are invited to conduct the final guidance and perfection of the questionnaire.

##### 2) The subject

According to the principle of random sampling, the self-compiled questionnaire is released for the testing in QQ groups and Wechat groups of the counselors and the student affairs. At the same time, print some paper questionnaire according to the methods of the purposive sampling and the convenience sampling to invite familiar college counselors and leaders of student affairs department to help release and collect the data of the questionnaire based on the standards of counselors with excellent performance. Finally, 525 questionnaires are collected and after the sorting, there are 458 effective questionnaires, eliminating 67 ineffective ones, and the usage rate is 87.2%. SPSS 15.0 is adopted to statistically process the research data [4].

#### B. Results and analysis

##### 1) Exploratory factor analysis

In the condition that the significance level  $\alpha$  is 0.05 and the P value is smaller than  $\alpha$ , there are significant differences. The value of KMO is 0.884 (close to 1) and it is suitable for the factor analysis. The statistics and total variation interpretation rate of the factor analysis results and the characteristic value and contribution rate of each factor are shown in Table 5.

Carry out the Bartlett sphericity test and KMO value analysis, and the p value is near 0.

TABLE V. STATISTICS OF FACTOR ANALYSIS AND TOTAL VARIATION INTERPRETATION RATE OF THE INDEX

Factor	Characteristic value	Variation percentage (%)	Accumulated percentage of the variation (%)
1	6.918	21.620	21.620
2	3.756	11.738	33.358
3	1.937	6.052	39.410
4	1.569	4.903	44.313
5	1.393	4.352	48.665
6	1.166	3.643	52.308
7	1.081	3.377	55.684
8	1.006	3.020	58.704

Through exploratory analysis, when the variation accumulation rate tends to be stable, 8 dimensions of the competency model of the college counselor with excellent performance are obtained and the cumulative variances interpretation rate is 58.70%. Therefore, 8 factors can be used to describe the competency of college counselors with excellent performance, which are named respectively as: achievement orientation, initiative, self-confidence, knowledge

and skills, cultivate others, perception, empathy and learning ability.

##### 2) Reliability and construct validity analysis

In order to further verify the degree of the consistency and the stability of the competency model of the college counselor with excellent performance, the reliability and the construct validity analysis are conducted. Refer to Table 6 for the results.

**TABLE VI. RELEVANCE BETWEEN EACH FACTOR AND THE TOTAL SCORE OF COMPETENCY**

	Achievement orientation	Initiative	Self- confidence	Knowled ge & skills	Cultivate others	Conceptio n	Empathy	Learning ability	Competency
Achievement orientation									0.633
Initiative	0.409								0.704
Self- confidence	0.423	0.458							0.773
Knowledge & skills	0.454	0.458	0.458						0.732
Cultivate others	0.459	0.545	0.569	0.539					0.798
Conception	0.294	0.538	0.539	0.446	0.549				0.750
Empathy	0.324	0.468	0.523	0.542	0.592	0.541			0.771
Learning ability	0.345	0.202	0.530	0.421	0.429	0.469	0.495		0.671

The correlation coefficient of the factors is 0.294-0.592, which shows that each factor not only can make contribution to the total score of the competency, but also has a certain relative independence. The correlation coefficient between each factor and the total score of the competency is 0.633-0.798, which is obviously higher than that between each factor, and shows that the construct validity of the questionnaire is good.

### 3) The consistency reliability and split-half reliability inside the factors

Carry out the internal consistency analysis to the factors in the questionnaire and calculate the Cronbach- $\alpha$  coefficient and the Split-half reliability coefficient. Refer to Table 7 for the results.

**TABLE VII. INTERNAL CONSISTENCY AND SPLIT-HALF RELIABILITY OF EACH FACTOR**

	Achievement orientation	Initiative	Self- confidence	Knowledge & skills	Cultivate others	Perception	Empathy	Learning ability	Competenc y
$\alpha$ Coefficient	0.869	0.862	0.851	0.856	0.847	0.854	0.851	0.866	0.873
Split-half reliability	0.859	0.852	0.848	0.855	0.849	0.851	0.848	0.855	0.853

The summation of each factor gives a total score of the competency and its Cronbach- $\alpha$  coefficient is of 0.873. The correlation between each factor is high, and the internal consistency between factors is high. Since the items of each dimension of the competency are arranged randomly in the questionnaire, calculate the correlation of the first-half items and the second-half ones in the questionnaire further, and the first-half is of 0.759 while the second-half is of 0.806, and the split-half reliability of the total score of the competency in the whole questionnaire is 0.853, which shows that the internal reliability of each factor is ideal.

### 4) Verification analysis of the competency model of the college counselor with excellent performance

From the correlation between the factors and the total score of the competency, it is shown that there is a certain correlation among the factors of the competency and it is obvious smaller than that between each factor and the total score of the competency, which needs further verification. The software of Amos 7.0 is adopted to conduct the verification analysis and the fitting result of the factor correlation obtained is shown in Table 8.

**TABLE VIII. THE STATISTICS TO THE FITTING INDEXES OF THE MEASUREMENT SAMPLE**

$\chi^2$	df	$\chi^2/df$	RMSEA	CFI	NFI	TLI
1084	458	2.367	0.067	0.942	0.919	0.938

It is obvious that the fit index  $\chi^2/df = 2.368$  is between 2.0--5.0, and RMSEA = 0.067, which is smaller than 0.08, and the



values of CFI, NFI, and TLI are all bigger than 0.9 and this shows that the degree of fitting is good. And according to the fit index, the model is of higher degree of fitting and stability.

Due to the correlation among the factors, the model correction is needed to extract higher-order factors. According to the analysis, the extraction result is: the higher-order factor extracted from achievement orientation, initiative and self-

confidence is named as self-driven; the higher-order factor extracted from cultivating other and empathy is named as professional accomplishment; the higher-order factor extracted from perception and learning ability is named as competency factors, and the higher-order factor extracted from knowledge and skills are named as professional standards. Refer to Table 9 for the fit index of the above second-order four-factors first-order eight-factors model.

TABLE IX. FIT INDEX STATISTICS OF THE SECOND-ORDER FOUR-FACTORS FIRST-ORDER EIGHT-FACTORS MODEL

$\chi^2$	df	$\chi^2 / df$	RMSEA	CFI	NFI	TLI
1118	458	2.441	0.071	0.953	0.931	0.945

It is obvious that the fit index  $\chi^2/df = 2.441$  is still between 2.0--5.0, and RMSEA is smaller than 0.08, and the values of CFI, NFI, and TLI are all bigger than 0.9, which shows the degree of fitting of the model is good with higher stability, and the construct of the model is reasonable.

## VI. DISCUSSION

### A. The construction method of the model

In the construction of the model, adopting the currently recognized behavioral event interview method<sup>[3]</sup>, the second-order four-factors first-order eight-factors construct of the competency model of the college counselor with excellent performance is explored and verified with the combination of mathematical modeling.

### B. Analysis of the competency construct of the college counselor with excellent performance

Through the research, the competency model of the college counselor with excellent performance is of the second-order four-factors first-order eight-factors construct. And through the model verification, it is shown that the construct model is reasonable. Generally speaking, the competency required by a specific work described in a competency model is composed of 7 to 9 dimensions<sup>[4]</sup>. The model in the research is of the first-order eight-factors construct and is in line with the above conclusion.

### C. Application of the competency of the college counselor with excellent performance

As the backbone of the ideological and political education work and the students work, higher requirements are proposed to the professional ability of the counselors. And the competency model of the counselors with excellent performance not only provides specific direction to the personal professional ability promotion, but also can provide reference to the HR departments in the colleges and universities for the management of the counselor team.

### D. Limitation of the research

The research constructs, verifies the competency model of the counselors with excellent performance and proposes the construct dimensions of the competency generality of the

counselors with excellent performance. However, there are still many contents need to be explored in depth. In the research, the demographic variables of the competency construct of the counselors with excellent performance is not analyzed and in the future research, it can be further refined.

## VII. CONCLUSION

(1) The competency model of the college counselor with excellent performance is of the second-order four-factors first-order eight-factors construct: the self-driven includes the achievement orientation, the initiative and the self-confidence factors; the professional accomplishment includes the cultivating others and empathy factors; and the competency factor includes conception and learning ability factors; and the professional standards include knowledge and skills factors.

(2) The Questionnaire of Competency of the College Counselor with Excellent Performance includes the measurement items of the four dimensions of self-driven, professional accomplishment, competency factor and professional standards and the questionnaire is of good reliability and validity.

## ACKNOWLEDGMENT

Foundation item: the achievement accomplished of the special task project on humanities and social sciences research of the Ministry of Education (ideological and political work in colleges and universities) "Research the Path of Promoting the Occupational Capability of College Counselors Based on the Excellent Performance Competency Model" (Project No.: 16JDSZ2054), funds from the phased achievements of the research project of college students' ideological and political education in Yunnan province "Research on the Competency in the View of the Counselors' Occupational Capability Standard in Colleges and Universities- Taking Yunnan Province as an Example" (Item No.: JZ100018).

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