Research on the competency of teachers of ideological and political theory courses in undergraduate colleges

Guang Li
School of Education Baoshan University, Baoshan, China 678000

Corresponding author and e-mail: Guang Li, 781216468@qq.com

Abstract. Teachers of ideological and political theory courses in colleges should have the consciousness of ideological and political education, be able to guide the practice of education and teaching, and cultivate students to adhere to and apply the basic principles of Marxism to solve practical problems. Using literature method, questionnaire method and mathematical statistics method, the article puts forward that the competence of teachers in ideological and political theory courses in colleges and universities in China includes loyalty, political literacy, initiative, self-confidence, training others, learning ability, knowledge and skills. The mathematical statistics method was used to explore and verify it. It was found that the second-order 4-factor first-order 7-factor competency model has a good fitness.

1. Introduction
General Secretary Xi Jinping clearly pointed out at the National Symposium on Ideological and Political Theory Teachers: "The ideological and political theory course is the key course to implement the fundamental tasks of Lide Shuren." "The key to running the ideological and political theory course is the teacher, the teacher's enthusiasm and initiative. Sex and creativity, building a team of ideological and political theory teachers who are credible, respectable, reliable, ambitious, courageous and promising is an important guarantee for the ideological and political theory. At present, the ability of teachers in the ideological and political theory courses in colleges and universities is insufficient, the work system is not fully integrated, and the pattern of "three-round education" has not yet been formed, especially the teachers of the ideological and political theory courses in the colleges and universities of the prefectures are not up to standard, and some universities Nearly 30% of the gap has brought difficulties to ideological and political work.

Strengthening the study of the competence of teachers in ideological and political theory courses and improving their professional ability are important ways to promote ideological and political work. Through literature review, there is very little research on the competency structure of teachers in ideological and political theory courses. The situation of ideological and political education in colleges and universities in China is very serious. Exploring the competency model of ideological and political theory teachers is to promote the professionalism and professional level of the ideological and political theory course teachers in China as a whole, and promote the professionalization of the ideological and political theory course teachers in colleges and universities. Professional construction is of great significance.
2. The construction of teachers and teachers in the ideological and political theory courses of undergraduate colleges in the prefecture

2.1. Ideological and Political Theory Course Teacher Competency Dictionary Construction

Through the network carrier such as WeChat, QQ, email, etc., the questionnaires for the teachers and teachers of the ideological and political theory courses of undergraduate colleges and universities are sent to the questionnaires, and the respondents are asked to list 10 entries that can summarize the competencies of ideological and political theory teachers. After the vocabulary combing, merging and categorizing, 80 items of professional expectations, ability factors, self-motivation and occupational conservation were collected. Inviting a master's degree or associate professor's title to a total of 3 people to college and university ideological and political theory course teachers competency terms (80) back-to-back merger classification, select at least three or more approved entries, and finally get 26 entries.

| Table 1. College Ideological and Political Theory Course Teacher Competency Dictionary Entry |
|---------------------------------|---------------------------------|
| Dimension                      | entry                           |
| Professional expectations      | (including expertise and skills, comprehensive knowledge and skills) |
| Interpersonal communication, relationship building, self-control, teamwork, team leadership, awareness, innovation, learning, communication, execution |
| Competence factors             | loyal, initiative, self-confidence, self-awareness, optimism, pleasantness, openness, self-motivation |
| Self-motivated                 | political literacy, responsibility, training others, caring for others, organizational identity, empathy, professionalism |
| Occupational conservation      |                                 |

According to the above table, the competency dictionary of some colleges and universities is used to construct the competency coding dictionary of the ideological and political theory course teachers in the undergraduate colleges. Each term consists of a name, a definition, a rating, and a description of the behavior. The level indicates the intensity or complexity of the performance. Different levels of behavioral descriptions are primarily representative of behavioral performance in student work.

2.2. Exploring the competence of teachers in ideological and political theory courses in colleges and universities

2.2.1 Participant

Through the IQ group of ideological and political theory teachers and the qualified ideological and political theory teachers around the members of the research group, they agreed to interview. Because some teachers of ideological and political theory take into account the long interview time and have an influence on them, they propose to provide work-related case texts for research use.

2.2.2 Research materials and tools

The self-edited "Interview Outline of Key Events for Teachers and Teachers of Ideological and Political Theory Courses in the Undergraduate Colleges and Universities" mainly includes research introduction, confidential description, basic information, and interview questions for the interview host.

According to the Dictionary of Competency of Teachers and Teachers of Ideological and Political Theory Courses in the Undergraduate Colleges and Universities, the paper analyzes the key events collected in the interviews. After coding, analysis, and assignment, spss15.0 software is used for correlation analysis and factor analysis to explore the competency model of ideological and political theory teachers.
2.2.3 Competency factor coding
Two members of the research team were invited to carry out the formal coding work after training, and all the key event text materials were familiar before coding. According to the Dictionary of Competency of Teachers and Teachers of Ideological and Political Theory Courses in the Undergraduate Colleges and Universities, each coder independently analyzes and identifies the rank, frequency and average score of the competency indicators appearing in each event text. Finally, collate and merge the results of the competency coding, and discuss and determine the differences in the coding.

2.2.4 Data analysis
The competency coding data is collated, and the highest score, average score and frequency of each competency factor are counted. After entering the spss19.0 system, statistical analysis was performed.

2.2.5 Constructing a competency model for teachers of ideological and political theory courses
According to the statistical analysis of the highest score, average score and frequency index of competency factors, the elements with significant differences in each index are selected to construct the competency model of the teachers of ideological and political theory courses in undergraduate colleges.

2.3. Analysis of results
Spencer believes that when constructing a competency model, it can be explored based on the frequency, average score, or highest score of the competency factor. In the study, the statistics of the three indicators were comprehensively analyzed. In order to improve the efficiency, accuracy and objectivity of the analysis, in the analysis process, the indicators with too many missing values after the coding of the competency indicators are excluded. In the analysis results of 26 competency indicators, statistical analysis was performed after removing the indicators with more than 14 missing values. Through the analysis of the highest scores, average scores and frequency indicators of competency and other indicators, the statistical results are organized as follows.

2.3.1 Statistics on the highest scores
Table 2. Statistics on the highest scores of competency of teachers in ideological and political theory courses in colleges and universities

| Loyalty               | Initiative | Political literacy | Self-confidence | Cultivating others | Learning ability | Knowledge and skills |
|-----------------------|------------|--------------------|------------------|-------------------|-----------------|---------------------|
|                       | Loyalty    | Initiative         | Political literacy | Self-confidence | Cultivating others | Learning ability | Knowledge and skills |
|                       | 0.032      | 0.013              | 0.021            | 0.019             | 0.414           | 0.016              | 0.004              |
|                       | Initiative | 0.005              | 0.404            | 0.081             | 0.007           | 0.082              | 0.004              |
|                       | Initiative | 0.032              | 0.032            | 0.001             | 0.289           | 0.011              | 0.013              |
|                       | Initiative |                    |                  |                   |                 |                    | 0.140              |
|                       | Initiative |                    |                  |                   |                 |                    | 0.005              |

From the relevant statistics of the highest score indicators, the competency indicators that remove too many missing values, and the indicators that finally enter the analysis are statistically compiled. The results show that the indicators have a significant difference in the p<0.05 level. Including loyalty, initiative, political literacy, self-confidence, training others, learning ability, knowledge and skills.
2.3.2 Relevant statistics of the average sub-indicators

Table 3. Statistics on the average scores of teachers’ competency in ideological and political theory courses in colleges and universities

| Loyalty          | Initiative | 0.440 | 0.013 | 0.032 | 0.069 | 0.585 | 0.266 |
|------------------|------------|-------|-------|-------|-------|-------|-------|
|                  | Political literacy | 0.021 | 0.014 | 0.423 |
|                  | Self-confidence  | 0.011 | 0.012 | 0.012 |
|                  | Cultivating others | 0.008 | 0.007 | 0.007 |
|                  | Perception power | 0.042 | 0.055 | 0.015 |
|                  | Knowledge and skills | 0.000 | 0.000 | 0.000 |

From the relevant statistics of the average sub-indicators, the competency indicators that remove too many missing values, and finally enter the analysis of the indicators, the results show that the indicators have a significant difference in the p<0.05 level of competency indicators. Including loyalty, initiative, political literacy, self-confidence, training others, awareness, knowledge and skills.

2.3.3 Statistics on frequency indicators

Table 4. Statistics on the Competency Frequency Index of Teachers in Ideological and Political Theory Courses in Colleges and Universities

| Loyalty          | Empathy    | 0.002 | 0.021 | 0.134 | 0.001 | 0.001 | 0.263 |
|------------------|------------|-------|-------|-------|-------|-------|-------|
|                  | Political literacy | 0.000 | 0.000 | 0.000 |
|                  | Self-confidence  | 0.013 | 0.013 | 0.549 |
|                  | Cultivating others | 0.005 | 0.549 | 0.031 |
|                  | Learning ability | 0.032 | 0.044 | 0.917 |
|                  | Knowledge and skills | 0.000 | 0.000 | 0.000 |

From the statistics of the frequency index, the competency indicators with too many missing values are eliminated, and the indicators that finally enter the analysis are statistically analyzed. The results show that the indicators of the indicators have significant differences at the p<0.05 level, including the loyalty indicators. Empathy, political literacy, self-confidence, training others, learning ability, knowledge and skills.

2.3.4 The competency model of teachers and teachers of ideological and political theory courses in prefectural colleges and universities

From the statistics of the highest score, the average score and the frequency index, the competency indicators that do not significantly distinguish the indicators are not shown in the table. There are at least two indicators on the three indicators that have significant competencies. After finishing, the competency models of the ideological and political theory teachers include loyalty, initiative, political literacy, self-confidence, training others, learning ability, knowledge, and skills.

2.3.5 Reliability analysis

The consistency result of the coder’s independent coding is a key indicator to measure the reliability of the construction of the competency model, mainly from the consistency of the classification. Interpretation is made by the percentage of scorers who are consistent with the same text material as a percentage of the total number of codes. The calculation formula is: \( CA = \frac{2 \times T1 \cap T2}{T1 \cup T2} \). \( T1 \) denotes the number of codes of the coder A, \( T2 \) denotes the number of codes of the coder B, \( T1 \cap T2 \) denotes the number of codes of the coders, and \( T1 \cup T2 \) denotes the sum of the code numbers of the coders. In the study, \( T1=1608, T2=1589, T1 \cap T2=1466, CA=91.7\% \).
2.3.6 Validity analysis
Seven teachers of ideological and political theory were invited to analyze the seven competency indicators. After the feedback from the ideological and political theory teachers, the consistency reached 99%. The seven indicators of teachers and teachers of the ideological and political theory courses in the undergraduate colleges and universities have good theoretical validity.

3. The competency model verification of teachers and teachers of ideological and political theory courses in colleges and universities of prefecture

3.1 Methods and processes

3.1.1 Research tool
According to the seven dimensions of the competence of teachers in the ideological and political theory course, the questionnaires for teachers and teachers in the ideological and political theory courses of colleges and universities are compiled. The questionnaire includes demographic variables and competency dimensions. The questionnaire was compiled and discussed by three research team members. Three students from the ideological, philosophical and literary backgrounds were invited to participate in the revision, and three experts were invited to give final guidance and improvement on the questionnaire.

3.1.2 Participants
In accordance with the principle of random sampling, the test of the competency questionnaire for teachers of ideological and political theory was completed in Yunnan Province. After finishing, a total of 428 valid questionnaires were collected, all of which were sorted and entered into the system software, and SPSS 19.0 statistical analysis was used.

3.2 Results and analysis

Demographic variable analysis
The demographic variables for the sample data are statistically as follows.

Table 5. Statistical analysis of respondents

| Basic information                        | Frequency | Percent |
|------------------------------------------|-----------|---------|
| **sex**                                  |           |         |
| Male                                     | 150       | 35.0    |
| Female                                   | 278       | 65.0    |
| Member                                   | 3         | 0.7     |
| **Political outlook**                    |           |         |
| Member of the Communist Party of China   | 310       | 72.4    |
| Democratic Party                         | 25        | 5.8     |
| Other                                    | 90        | 21.0    |
| **Age**                                  |           |         |
| 30 years old and below                   | 38        | 8.9     |
| 31-40 years old                          | 145       | 33.8    |
| 41-50 years old                          | 171       | 40.0    |
| 51 years old and above                   | 74        | 17.3    |
| High School and below                    | 0         | 0       |
| **Education**                            |           |         |
| Specialist                               | 10        | 2.3     |
| Undergraduate                            | 216       | 50.5    |
| Graduate and above                       | 202       | 47.2    |
| Primary                                  | 42        | 9.8     |
| **Technical position**                   |           |         |
| Intermediate                             | 168       | 39.3    |
| Advanced                                 | 214       | 50.0    |
| No title                                 | 4         | 0.9     |
| **Engaged in ideological and political class time** | | |
| 2 years and below                        | 84        | 19.6    |
| 3-5 years                                | 128       | 29.9    |
| 6-8 years                                | 107       | 25.0    |
| 9 years and above                        | 109       | 25.5    |
In the demographic statistics of the questionnaire, the female sample was high, accounting for 65.0%. Party members are high, accounting for 72.4%. Young and middle-aged teachers accounted for 82.7% of the total, and the income of student staff was relatively low. The degree of education is mainly undergraduate and graduate students, accounting for 97.7%. Professional and technical positions are mainly senior, accounting for 89.3%. Most of the time spent working in ideological and political education is more than 2 years, accounting for 80.4%.

**Exploratory factor analysis**

Bartlett spherical test and KMO value analysis were performed, and the p value was close to 0. Under the condition that the significance level $\alpha$ was 0.05, the $P$ value was smaller than $\alpha$, and there was a significant difference. The KMO value is 0.919 (close to 1) and is suitable for factor analysis. The factor analysis result statistic and the total variability interpretation rate, as well as the eigenvalues and contribution rates of each factor are shown in the table.

Table 6. Factor analysis statistics and indicator total variation interpretation rate

| Factor | Eigenvalue | Percentage Change (%) | Cumulative Percentage of Variation (%) |
|--------|------------|-----------------------|---------------------------------------|
| 1      | 7.118      | 28.621                | 28.621                                |
| 2      | 5.755      | 20.438                | 49.059                                |
| 3      | 2.837      | 9.152                 | 58.211                                |
| 4      | 1.566      | 5.103                 | 63.314                                |
| 5      | 1.493      | 4.852                 | 68.166                                |
| 6      | 1.276      | 3.942                 | 72.108                                |
| 7      | 1.181      | 3.076                 | 75.184                                |

After exploration and analysis, when the cumulative rate of variation tends to be stable, the competency model of the teachers of ideological and political theory courses in 7 dimensions is obtained, and the cumulative variance interpretation rate is 75.184%. Therefore, seven factors can be used to describe the competence of teachers in ideological and political theory courses in colleges and universities. Considering the rationality and interpretability of the measured variables, the seven factors are named: loyalty, initiative, political literacy, self-confidence, training others, learning ability, knowledge and skills.

**Reliability and structural validity analysis**

On the basis of exploratory factor analysis, in order to further verify the consistency and stability of the ideological and political theory course teacher competency model, the reliability and structural validity are analyzed.

Table 7. Correlation between factors and the total score of competency

| Loyalty | initiative | political literacy | self-confidence | cultivating others | learning ability | knowledge and skills | competence |
|---------|------------|--------------------|------------------|--------------------|-----------------|----------------------|------------|
| Loyalty |            |                    |                  |                    |                 |                      | 0.683      |
| initiative | 0.449    |                    |                  |                    |                 |                      | 0.724      |
| political literacy | 0.463 | 0.528 |                  |                    |                 |                      | 0.773      |
| self-confidence | 0.484 | 0.498 | 0.478            |                    |                 |                      | 0.742      |
| cultivating others | 0.519 | 0.575 | 0.569 | 0.509 |                |                      | 0.799      |
| learning ability | 0.314 | 0.588 | 0.589 | 0.546 | 0.599 |                      | 0.772      |
| knowledge and skills | 0.421 | 0.478 | 0.543 | 0.552 | 0.602 | 0.591                | 0.781      |

The correlation coefficient between the seven factors is between 0.314 and 0.599, indicating that each factor can contribute to the total score of competence, and at the same time has a certain relative independence. The correlation coefficient between each factor and the total score of competence is
between 0.683 and 0.799, which is significantly higher than the correlation coefficient between the factors, indicating that the structure validity of the questionnaire is good.

**Factor internal consistency reliability and split-half reliability**

The internal consistency of the seven factors in the questionnaire was analyzed, and the Cronbach-coefficient and the split-half reliability coefficient were calculated. The results are shown in the table:

**Table 8. Internal consistency and split-half reliability of each factor**

|                      | Loyalty | initiative | political literacy | self-confidence | cultivating others | learning ability | knowledge and skills | competence |
|----------------------|---------|------------|--------------------|-----------------|-------------------|-----------------|----------------------|------------|
| α coefficient        | 0.866   | 0.867      | 0.861              | 0.880           | 0.852             | 0.859           | 0.858                | 0.819      |
| Semi-trustworthiness | 0.861   | 0.872      | 0.798              | 0.843           | 0.853             | 0.849           | 0.876                | 0.884      |

The sum of each factor is summed to obtain the total score of competence. The Cronbach-coefficient is 0.819. The correlation between the factors is higher, and the internal consistency between the factors is higher. Because the competency of each dimension of the questionnaire is randomly arranged. Further, the correlation between the first half of the questionnaire and the second half of the questionnaire is calculated. The first part is 0.809, the second part is 0.844, and the sub-trust reliability of the total score of the questionnaire is 0.884, indicating that the internal reliability of each factor is relatively high ideal.

**Verification and Analysis of the Competency Model of Teachers in Ideological and Political Theory Courses in Colleges and Universities**

From the relationship between the seven factors and the total score of competency, there is a certain correlation between the competency factors of teachers in ideological and political theory courses in colleges and universities, and it is obviously lower than the correlation between each factor and the total score of competency. Do further verification analysis. The confirmatory analysis was performed using Amos7.0 software, and the fitting results of the 7-factor related structural equation model are shown in the table.

**Table 9. Statistics of fitted indicators of the measurement model**

|        | χ²    | df   | χ²/df | RMSEA | CFI   | NFI   | TLI   |
|--------|-------|------|-------|-------|-------|-------|-------|
|        | 1606  | 612  | 2.252 | 0.057 | 0.938 | 0.926 | 0.945 |

It can be seen that the fitting index χ²/df=2.252 is between 2.0 and 5.0, RMSEA=0.057 is lower than 0.08, and the CFI, NFI and TLI values are all greater than 0.9, indicating that the model fit is good, from the fitting index. The model has a high degree of fit and stability.

Since there is correlation between the 7 factors, model correction is also needed to extract higher order factors. According to the analysis, the results are: loyalty, initiative, self-confidence, extracting high-order factors named self-driven; training others to extract higher-order factors named occupational literacy; learning ability extracts high-order factors named ability factors, political literacy Knowledge and skills are extracted from high-level factors named professional literacy. The results of the fitting index of the above second-order 4-factor first-order 7-factor model are shown in the table.

**Table 10. Statistics of second-order 4-factor first-order 7-factor model fitting index**

|        | χ²    | df   | χ²/df | RMSEA | CFI   | NFI   | TLI   |
|--------|-------|------|-------|-------|-------|-------|-------|
|        | 1586  | 612  | 2.399 | 0.068 | 0.955 | 0.946 | 0.958 |
It can be seen from the table that the fitting index $\chi_2/df=2.399$ is still between 2.0 and 5.0, RMSEA=0.068 is lower than 0.08, and the CFI, NFI and TLI values are all greater than 0.9, indicating that the model has good fit and high Stability, the model structure is more reasonable.

4. Discussion

4.1 The construction method of the competency model of teachers in ideological and political theory courses in colleges and universities

In constructing the competency model of ideological and political theory teachers in colleges and universities, using the key event interview methods recognized in the current research, combined with the factor analysis and structural equation model in mathematical modeling, explored and verified the competence of teachers in ideological and political theory courses in colleges and universities. The second-order 4-factor first-order 7-factor structure of the force model. In the construction of the competency dictionary for teachers of ideological and political theory courses in colleges and universities, the author has done a full gestation of the collection, sorting, screening and supplementation of the terms, combined with the analysis of the work of ideological and political theory teachers, and invited the experts to revise and determine the competency dictionary. Perfect. In the lexicon construction and questionnaire sample selection, the test is based on random sampling and convenient sampling. The sample covers a wide range and is representative.

The research involves the analysis of the work of teachers in the ideological and political theory class, which plays an important role in the construction of the competency model of teachers in ideological and political theory courses in colleges and universities. Niu Duan, Zhang Minqiang (2012), Wu Hongyan, Li Wendong, Xie Yizhong et al. (2006) used the path of work analysis in the study of competency model, which proved to be feasible and effective. Therefore, the follow-up study on the competency model of ideological and political theory teachers can also try to combine the methods of job analysis.

4.2 Analysis of the competency structure of teachers in ideological and political theory courses in colleges and universities

After research and analysis, the competency model of teachers in ideological and political theory courses in colleges and universities is a second-order 4-factor first-order 7-factor structure: loyalty, initiative, and self-confidence are self-motivating factors; cultivating others as professional literacy factors; learning ability as ability factors, Political literacy, knowledge and skills are professional literacy factors. The model verification shows that the structural model is more reasonable.

In general, the capabilities required for a particular job described in a competency model consist of 7-9 dimensions (Shippman, Ash, Battista, Carr, Eyde, Hesketh, et al., 2000). The model in the study is a first-order 7-factor structure, consistent with the conclusions.

4.3 The use of competency of teachers in ideological and political theory courses in colleges and universities

As the backbone of the ideological and political education work, ideological and political theory teachers have put forward higher requirements for their professional ability under the background of the big political policy, and the competency model of the ideological and political theory teachers not only provides the individual's professional ability improvement. The specific direction can also provide a reference for the management of the ideological and political theory course teachers in the personnel department of colleges and universities.

4.4 Research gaps and prospects

Although the research constructs and verifies the competency model of ideological and political theory teachers, and puts forward the structural dimension of teachers' ideological and political theory teachers' competence, there are still many things to be further explored. In the research, the
demographic variables of the competency structure of ideological and political theory teachers have not been analyzed, which may have an impact on the use of the competency of teachers in ideological and political theory courses under different variables. To this end, future research can be further refined, commonality and difference analysis for different variables, exploring regular content, and proposing specific practical measures for different variables, the effect is more ideal.

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