

## Key Competence Standards of Local College Students

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**Abstract:** This study aims to conduct a comprehensive study on the key capabilities of local college students from the aspects of the current situation of college students, literature analysis of key capabilities, and international comparative analysis of key capabilities. Finally, the criteria for key capabilities are proposed. The study at this stage will establish a good foundation for the follow-up studies such as the development of key capability training resources.

### 1. Proposal of Key Capabilities

In the 1950s and 1960s, with the rapid economic development in western countries, modern production had a great impact on the economic structure and labor market. Its characteristics were the increase in labor mobility, the increase in job changes, the improvement of workers' quality, and the acceleration of scientific and technological updates. As a result, the knowledge learned by students in schools will become obsolete in a short period of time after employment, reducing the occupational adaptability of a new generation of workers, and the phenomenon of so-called "faster decline in occupational ability" appeared. In order to cope with such changes, some international organizations and major industrialized countries have begun to attach importance to the study of the labor market and labor policies. On the basis of the research, Mertens, director of IAB, submitted a report entitled "Survey of Occupational Adaptability Research" to the European Union in 1972. For the first time, he applied the concept of "schlüsselqualifikation" and regarded it as "a tool to enter an increasingly complex and unpredictable world" and "a strategy to promote social change".

### 2. Research and Development of Key Capabilities

#### 2.1. International Research on Key Capabilities.

The concept of competence was widely used in the field of education in the 1980s and 1990s. Key competence has also become a basic concept of school pedagogy. Internationally, Key Competencies are also called Core Competencies or General Competencies. Key competence in the vocational field refers to the basic cross-occupational competence that is essential for workers to engage in any kind of occupation. Britain, the United States, Germany, Australia, Canada and other countries have also proposed to take the cultivation of key competence as an important goal of vocational education. That is: the key capabilities are interlinked and transformable. It does not target specific occupations or positions, but it is indispensable for any occupation. The ability to solve practical problems, to communicate and cooperate with others, to apply technology, and to calculate are all abilities that scholars from all countries have consistently emphasized.

#### 2.2. Research and Development of Key Capabilities in China.

The introduction of key competencies into China was around the 1990s of the last century, while Jiang Dayuan first published the key competencies as a special topic in the first issue of Education Profession in 1996. Since then, educational experts and scholars in our country have also carried out researches on key abilities, which can be summarized as follows: (1) Key abilities are abilities other than specific professional skills and knowledge; (2) The key ability can ensure the level of

migration between different knowledge fields; (3) Common knowledge and ability in different occupational fields; (4) is a kind of enduring ability. Secondly, China's Ministry of Labor and Social Security has also developed its own eight key competencies, called core competencies, which are: communication and expression, cooperation with people, information processing, digital application, foreign language application, problem solving, innovation and self-improvement.\_

### **2.3. The Connotation of Key Capabilities.**

The key capabilities are borrowed from the field of vocational education in western countries and adopted by the vocational education circle in China, which naturally has its value of existence and application. This article will define the following key abilities from the social needs, economic development needs and students' personality development needs: the key abilities are psychological qualities, methodological abilities and social abilities that go beyond specific professional competence fields to smoothly carry out professional activities, promote the development of professional livelihood, and play a vital role in realizing people's all-round development and lifelong development. It has no direct connection with pure and specialized professional skills and knowledge, or is beyond the scope of a specific professional skills and knowledge. This ability not only belongs to a certain profession, but is the common foundation of many professions and is a kind of transferable ability. This kind of transportable ability, which can ensure that workers can adapt to job changes quickly and play a key role in the future development of workers, is called critical ability, or cross-occupational ability or core ability.

## **3. Research Methods and Design (Measurement of Variables)**

### **3.1. Research methods.**

Starting from the particularity of the cultivation of local college students, through the methods of literature search, character interview, questionnaire survey, DACUM capability research (career analysis method), expert consultation, etc., the contents of key capabilities are clarified, and the key capability system structure of local college students is constructed.

### **3.2. Development Ideas.**

After comprehensive consideration of the actual conditions of the study, analysis and argumentation by the researchers and extensive solicitation of opinions, the following thinking is determined for the study:

1. Plan: First of all, define the development objectives, select the development methods, develop the theoretical basis, comprehensively consider the actual conditions of development, and plan and design the development steps.

2. Analysis: analyze the professional field of college students, and discuss their knowledge, ability, quality and belief in professional development and other fields.

3. Research: Through the investigation and comparison of the concept of key competence and the structures of several key competence standards at home and abroad (including EU, US, Germany and Australia), the framework and indicators of key competence standards for local college students are studied.

4. Design: Under the guidance of the concept, combined with the theory of zero defects and referring to foreign advanced standard models, design the standard framework and corresponding indicators of the key capabilities of local college students.

5. Verification: Verify the rationality of the framework of key competency standards and competency indicators for local college students. According to the verification feedback results, modify and adjust the capability standards and framework contents of the previous research and design.

## **4. Empirical Analysis**

Researchers set up six research teams to go to northeast, inner Mongolia, north China, east China, southwest, south China, central China and other regions to solicit opinions on the draft of the key competency standards for local college students and conduct extensive research to find problems and make up for the deficiencies. A total of 400 comprehensive questionnaires were sent out in this survey, 382 valid questionnaires were recovered, with a recovery rate of 96.2%. Among the 382 questionnaires, the ones with too high approval tendency or incomplete filling were also excluded, and the criterion of discrimination was that the subjects scored more than one standard deviation above the average on the approval tendency sub-questionnaire. As a result, 371 valid questionnaires were finally obtained. All the data in this study were analyzed by researchers using social science statistical analysis software including SPSS and Amos4.0 to process the data statistically on a microcomputer.

The analysis assumes that the four-factor model (model 1) and the single-factor model (model 2) are compared to determine the best model for the questionnaire. One-factor model assumes that all items are observation variables and sets a latent variable. The results are shown in the table.

**Table 1** Results of Confirmatory Factor Analysis of Local College Students' Key Competence Questionnaire

Moddle	X2	df	RMSE	RMR	GFI	AGFI	IFI	NNFI
1	364	167	0.055	0.052	0.914	0.892	0.928	0.937
2	370	176	0.056	0.053	0.912	0.890	0.936	0.929

(Note: X2: Chi-square value; Df: degree of freedom; RMSEA: root mean square error of approximation. GFI: goodness-of-fit index; AGFI: adjusted goodness-of-fit index;IFI: increasing fitting index; Nnfi: (non-normedfit index) non-standard goodness of fit index. )

The above table shows that model 1 has better fitting effect than model 2, and all fitting degrees meet the requirements, which indicates that the four dimensions of key capabilities proposed in this study are ideal fitting models.

## 5. Conclusions and Recommendations

Through the above research, starting from the origin of students, and adopting the process of "investigating the characteristics and needs of college students-understanding the working procedures and requirements of professional people-combing the competence of outstanding professionals", based on the working process of the workplace environment, the quasi-framework of college students' key competence is initially proposed, as shown in Table 2.

**Table 2** Framework Diagram of Key Competency Standards for Local College Students

Origin and Dimensions_	Field_	Basic requirements_
I. Professional Beliefs and Responsibilities (Origin: Face to Post, Be a Person)	(1) professional understanding and recognition Knowledge -Goals	1. Implement the Party's and state's educational policies and abide by laws and regulations. (Aspiration) 2. Understand the meaning of life and set up lofty ideals. (Orientation) 3. Recognize the professionalism and uniqueness of future work and pay attention to their own professional development. (fixed point)
	(2) Attitude and behavior toward -s other-Attitude 1	4. Care for others, attach importance to the healthy development of body and mind, and protect personal and life safety. 5. Respect others, safeguard legitimate rights and interests and treat everyone equally. 6. Trust in special responsibilities, actively create conditions and promote independent development._
	(3) Attitude and behavior toward -s oneself-Attitude 2	7. Set up the concept of moral education first and ability first, combine knowledge learning, skill training and moral cultivation, and attach importance to the all-round development of learning. 8. Follow the rules of job growth and physical and mental development to promote the formation of professional ability. 9. Create an atmosphere of daring to explore, actively practice and innovate, and cultivate practical ability, humanistic quality, normative consciousness and innovative consciousness. 10. Self-study, self-improvement and self-reliance, develop good study habits and professional habits. 11. Strengthen moral cultivation according to the formation characteristics of ideological morality and professional ethics._
	(4) Personal accomplishment and behavior-morality	12. Be full of love and responsibility, and have the firm belief of becoming a useful talent. 13. Adhere to the practice-oriented, practice and learn by doing. 14. Optimistic, careful, patient and friendly. 15. Dress neatly and appropriately, language is standard and healthy, and manners are civilized and polite. 16. Establish a sense of integrity, cultivate dedication, trustworthiness, code of conduct, punctuality work style._
II. Career planning and Guidance (Horizontal Dimension: Facing the Workplace and becoming a real -professional)	(5) Workplace communication and cooperation -ability 1	17. understand the basic situation of the economic development of the region, the current situation and trend of relevant industries and the demand for talents, and the world's leading level of technical skills. 18. Recognize industry requirements and standards, pay attention to enterprise needs, understand job requirements, understand enterprise culture and safety production rules, actively carry out exchanges and cooperation with industries and enterprises, and have practical experience in enterprise jobs. 19. Understand customers, communicate with customers equally, and establish good relations. 20. Cooperate and exchange with colleagues, share experiences and resources, and jointly develop. 21. Effectively communicate and cooperate with leaders to jointly promote career development. 22. Cooperate with and promote enterprises and communities to establish cooperation and mutual assistance, promote social cooperation and provide social services._
	(6) Employment and Entrepreneurship -Competence 2	23. Understand the employment environment and policies to keep pace with the development of the social situation. 24. Necessary career planning, employment and entrepreneurship guidance.
	(7) Career planning and management-competence 3	25. Combined with the needs of industry enterprises and professional needs, to develop personal career planning. 26. Carry out effective self-management (work and study) and ability development, and continuously improve their own quality by participating in business training and enterprise practice.
III. Physical and mental health and growth (Vertical Dimension: Facing Life and promoting individual -ual Growth)	(8) Emotion and Personality Development-Health 1	27. Strengthen personal cultivation: full of love, patience, care and responsibility, with equality, tolerance, optimism and upward temperament, enthusiastic, cheerful and friendly. 28. Pay attention to personality formation: diligence, self-confidence, independence, integrity and self-discipline.
	(9) Physical health and regulation -ion-health 2	29. Promote the healthy development of physical fitness, exercise healthy physique, recognize the value of physical exercise, and cultivate sports expertise. 30. Cultivate sufficient physical strength and energy to adapt to the work intensity of secondary vocational school teachers. 31. Have certain physiological adaptability.
	(10) Emotional quotient and social adaptation -ion-interpersonal relationship	32. Know yourself rationally and soberly. 33. Be good at self-regulation of emotions, maintain a calm state of mind, and have certain conflict management capabilities. 34. Have good interpersonal and communication skills, be kind to others and be ready to help others. 35. Has good social adaptability, will temper, adversity to survive, deal with setbacks, have the ability to manage pressure. 36. Have the team cooperation spirit, carries on the cooperation and the exchange positively. 37. Have appropriate social etiquette. 37. Be familiar with the growth rules of skilled talents, master the laws and characteristics of students' physical and mental development, and provide psychological counseling for students in learning and living.
IV. Lifelong Learning and Development (vertical dimension: modern people facing the society and meeting the requirements of the times)_	(11) Cultural and artistic accomplishment -ish ment-learning	38. Learn the corresponding knowledge of natural science and humanities and social sciences. 39. Understand the basic situation of China's economic, social and educational development. 40. Have a certain knowledge of artistic appreciation and expression, and cultivate their own artistic expertise.
	(12) Reflection and accurate expression-expression	42. Develop the ability to solve problems. 43. Develop writing and language skills. 44. Ability to use foreign languages._
	(13) Cultivation of thinking and methods-thinking	45. Ability to use mathematical statistics and figures. 46. Have a global vision and environmental awareness. 47. Ability to think from multiple angles and adapt to social development and changes. 48. Cultivate innovative awareness and creative thinking. 49. To cultivate information technology knowledge and application ability suitable for the modernization of education.

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