

# A Comparison of Labor Competence of College Students in Different Educational Tracks: A Study Based on a Survey in Guangxi University of Foreign Languages

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**Abstract:** This article is a case study of students' labor competence in two different educational tracks from the Guangxi University of Foreign Languages. According to research findings, there was no significant difference in the overall level of labor competence between ordinary undergraduates and vocational students, and there were disparities in labor competence in specific dimensions, including labor consciousness, labor knowledge, labor qualities, and labor creativity, between the two groups. Ordinary undergraduates significantly outperformed vocational college students in the dimension of labor consciousness, whereas the latter scored higher in the dimension of labor knowledge. Both groups scored poorly in terms of labor creativity. Also discussed is the importance of cultivating innovation ability, building labor knowledge, shaping labor values, and improving off-campus labor education participation among college students.

Science Insights Education Frontiers 2024; 24(1):3859-3871

DOI: 10.15354/sief.24.or630

*How to Cite:* Wang, W., & Wu, Q. (2024). A comparison of labor competence of college students in different educational tracks: A study based on a survey in Guangxi University of Foreign Languages. *Science Insights Education Frontiers*, 24(1):3859-3871.

**Keywords:** Labor Competence, Educational Track, Labor Consciousness, Labor Knowledge, Labor Qualities, Labor Creativity

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**Conflict of Interests:** None

**Funding:** This study is part of the research project titled “The Impact of Life-Based Labor Education in the Industry-Education Collaboration Efforts on College Students’ Character Building” (Project # 2022ZJY1892) supported by the “2022’s Practical Education and Labor Education Research Program” under Guangxi Province’s 14th Five-Year Plan for Education Sciences

**AI Declaration:** The authors affirm that artificial intelligence did not contribute to the process of preparing the work.

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**I**N MARCH 2020, the State Council of China (2020) issued the “Opinions on Comprehensively Strengthening Labor Education in Tertiary, Secondary, and Primary Schools in the New Era,” emphasizing that labor education is an integral part of the Chinese education system, which places equal value on moral, intellectual, physical, aesthetic, and labor education, and putting forward fresh requirements for labor education at all education levels in the new era. Labor education is not only an essential component of the national education system, but it also supports other components in that it helps cultivate morality, promote intellectual development, boost physical well-being, and nurture aesthetic perceptions in students. In labor education, students develop labor awareness, skills, and resilience, as well as establishing appropriate values and outlooks on life. In China, official labor education as compulsory in the school curriculum is still in its early stages, and the issue of its effective implementation is pending further research.

There are significant distinctions in training objectives, knowledge structures, teaching substances, instructional methods, and practical curriculum between ordinary undergraduate education and tertiary vocational education (Guo, 2017), resulting in variations in labor competence between college students in the two different streams. A thorough examination of the variations in their labor competence is beneficial for improving labor education curricula in tertiary education institutions. The Guangxi University of Foreign Languages provides both ordinary undergraduate and tertiary vocational education. This study investigates the current state of labor competence among students in the two tracks at the university and makes an empirical comparison. Based on its research findings, it discusses the differential labor education needs of the two groups and proposes relevant education pathways.

## **Research Subjects and Methodology**

### ***Research Subjects***

The sample of this study includes ordinary undergraduates and vocational students from Guangxi University of Foreign Languages. A total of 2,803 questionnaires were distributed and collected, with 2,720 being valid (a 97.04% validity rate). Among the respondents, 1,234 were vocational students and 1,486 ordinary undergraduates.

### ***Research Methodology***

Our survey questionnaire is an adaptation of the College Student Labor Competence Scale (Yuan, 2023), including four dimensions: labor

**Table 1. A Description of the College Student Labor Competence Questionnaire.**

Dimensions	Sub-Dimensions	Chief Content	Question Items
Labor consciousness	Perceptions of the value of labor	Understanding of the purpose of labor	1, 2, 3, 4, 5
	Attitudes towards labor	Attitudes to labor and working people	6, 7, 8, 9
	Labor ethics	Moral and rational judgments on labor activities; subjective satisfaction from labor	10, 11, 12, 13
Labor knowledge	Theoretical knowledge of labor	Essential knowledge for labor enactment	14, 15, 16, 17, 18
	Labor skills	Basic labor skills for everyday life	19, 20, 21, 22, 23
Labor qualities	Labor resilience	Dedication to labor responsibilities and readiness of taking on labor burdens	24, 25, 26, 27, 28
	Labor habits	Active participation in labor activity	29, 30, 31, 32, 33
Labor creativity	Innovation in daily-life labor	Innovation of labor processes and tools in everyday life	34, 35, 36
	Innovation in production labor	Outcomes of labor practice, such as patents and research papers	37, 38, 39, 40
	Innovation in voluntary service labor	Content design and organization of voluntary services	41, 42, 43

**Table 2. Validity Test Results.**

KMO measure of sampling adequacy		0.977
Bartlett's test of sphericity	Approximate Chi-squared value	96281.31
	df	903
	Sig.	0

**Table 3. Differences in Labor Competence in Four Dimensions between the Two Groups.**

	Labor Consciousness	Labor Knowledge	Labor Qualities	Labor Creativity	Labor Competence
Ordinary Undergraduates	4.28±0.54	3.89±0.69	4.05±0.64	3.67±0.82	3.97±0.59
Vocational college students	4.19±0.61	3.96±0.71	4.03±0.69	3.74±0.86	3.98±0.65
T-value	4.09	2.57	0.58	1.95	0.27
p-value	< 0.001	0.01	0.56	0.51	0.784

consciousness, labor knowledge, labor qualities, and labor creativity (**Table 1**). “Labor consciousness” contains 13 question items in three sub-dimensions: “perceptions of the value of labor,” “attitudes towards labor,” and labor ethics.” “Labor knowledge” has 10 items in the two sub-dimensions of “theoretical knowledge of labor” and “labor skills.” “Labor qualities” contain 10 items in the two sub-dimensions of “labor resilience” and “labor habits.” “Labor creativity” has 10 items in three sub-dimensions: “innovation in daily-life labor,” “innovation in production labor,” and “innovation in voluntary service labor.” Each item in the questionnaire is scored from 1 to 5, with 1 denoting “absolutely disagree,” 2 “fairly disagree,” 3 “agree,” 4 “considerably agree,” and 5 “absolutely agree.” The average score of all items included in a dimension or sub-dimension was calculated as the score of each dimension or sub-dimension. Data were analyzed with SPSS 22.0 for further discussion of research findings.

### ***Reliability and Validity of the Questionnaire***

According to the analysis results via SPSS22.0, the Cronbach’s coefficient alpha was 0.970 for the questionnaire, signaling good reliability; the KMO value is 0.977 (above 0.7), indicating that the scale had good construct validity (**Table 2**).

## **Research Findings**

### ***Overall Levels of Labor Competence of Ordinary Undergraduates and Vocational College Students***

As shown by the analysis results (**Table 3**), there was no significant difference in the overall level of labor competence between the two groups. Ordinary undergraduates and vocational students scored highest in “labor consciousness” with 4.28 and 4.19, respectively, and scored lowest in “labor creativity” with 3.67 and 3.74, respectively. In addition, ordinary undergraduates scored significantly higher than vocational students in “labor consciousness” ( $p < 0.05$ ). Inversely, vocational students scored significantly higher than ordinary undergraduates in “labor knowledge” ( $p < 0.05$ ).

### ***Differences in the Sub-Dimensions of Labor Consciousness between the Two Groups***

The differences in “labor consciousness” between the two groups of college students were mainly exhibited in “perceptions of the value of labor” and “labor ethics” as sub-dimensions. Ordinary undergraduates scored higher in

**Table 4. Differences in the Sub-Dimensions of Labor Consciousness between the Two Groups of College Students.**

Sub-Dimensions	Vocational Students	Ordinary Undergraduates	T	p
Perceptions of the value of labor	4.16±0.67	4.26±0.61	-4.175	< 0.001
Attitudes towards labor	4.05±0.75	4.09±0.73	-1.534	0.125
Labor ethics	4.37±0.65	4.49±0.55	-5.384	< 0.001

**Table 5. Differences in the Sub-Dimensions of Labor Knowledge between the Two Groups of College Students.**

Sub-Dimensions	Vocational Students	Ordinary Undergraduates	T	p
Theoretical knowledge of labor	4.00±0.74	3.94±0.75	2.145	0.032
Labor skills	3.92±0.75	3.84±0.73	2.707	0.007

**Table 6. Differences in the Sub-Dimensions of Labor Qualities between the Two Groups of College Students.**

Sub-Dimensions	Vocational Students	Ordinary Undergraduates	T	p
Labor resilience	4.07±0.71	4.1015±0.66	-1.11	0.267
Labor habits	3.99±0.74	3.9962±0.69	-0.092	0.926

**Table 7. Differences in the Sub-Dimensions of Labor Creativity between the Two Groups of College Students.**

Sub-Dimensions	Vocational Students	Ordinary Undergraduates	T	p
Innovation in daily-life labor	3.88±0.83	3.86±0.80	0.625	0.532
Innovation in production labor	3.58±0.99	3.46±0.97	3.175	0.002
Innovation in voluntary service labor	3.80±0.88	3.77±0.84	0.908	0.364

**Table 8. Off-Campus Labor Activity Participation among Students at the Two Educational Levels.**

	Yes		No	
	Vocational Students	Ordinary Undergraduates	Vocational Students	Ordinary Undergraduates
Participation in practical education like placement	43.68%	35.26%	56.32%	64.74%
Participation in voluntary service activity	50.32%	50.54%	49.68%	49.46%

these two sub-dimensions than vocational students ( $p < 0.05$ ), but there was no significant difference in “attitudes towards labor” between the two groups (Table 4).

### ***Differences in the Sub-Dimensions of Labor Knowledge between the Two Groups***

Vocational students scored higher than ordinary undergraduates in both sub-dimensions: “theoretical knowledge of labor” and “labor skills” (Table 5).

### ***Differences in the Sub-Dimensions of Labor Qualities between the Two Groups***

There was no significant score difference in “labor resilience” and “labor habits” as sub-dimensions between the two student groups (Table 6).

### ***Differences in the Sub-Dimensions of Labor Creativity between the Two Groups***

Both groups scored lowest in “Innovation in production labor.” Despite the absence of significant differences in the overall level of labor creativity between the two groups, vocational students scored noticeably higher than ordinary undergraduates in “Innovation in production labor” (Table 7).

### ***The Rates of Off-Campus Labor Activity Participation among the Two Groups of Students***

The participation rate of placement among vocational students was 43.68%, higher than the 35.26% among ordinary undergraduates. The participation rates of voluntary service activity in the two groups are almost the same (Table 8).

## **Discussion**

Data show no significant disparities in the overall level of labor competence between vocational college students and ordinary undergraduates. Students in both tracks exhibited acceptable levels of labor competence. For both groups, labor education is an integral part of the curriculum. The state places equal weight on labor education in the two tracks, and it is incorporated into the curricular programs to foster the labor competence of all tertiary students.

Students' scores on the labor competence scale suggest that labor education has been equally valued in the two different streams.

Nevertheless, both vocational college students and ordinary undergraduates perform low in "labor creativity." Their weakness in "labor creativity" is particularly evidenced by their poor performance in the sub-dimension of "innovation in production labor," which includes raising original ideas, conducting scientific research projects, initiating business projects, and achieving places in professional competitions, among others (Huang et al., 2022).

Ordinary undergraduates outperform vocational college students in "labor consciousness," with the gap mainly due to the disparities in "perceptions of the value of labor" and "labor ethics," i.e., the differences in the comprehension of the purpose of labor as well as moral experience and subjective satisfaction from labor, between the two groups. The gap is likely associated with the difference in their educational focuses. Vocational education places higher emphasis on practice than theoretical knowledge, resulting in the proficiency in hands-on skills but a lack of deep understanding of the meaning of labor in vocational students, who may have difficulty keeping their motivation level high in an enduring process of labor. Contrarily, ordinary undergraduate education underscores the delivery of content knowledge as well as liberal education, which is conducive to their development of an in-depth understanding of the purpose of labor. Also, undergraduates receive more education on the value of labor, largely boosting their performance in "labor consciousness." All these factors help ensure the maintenance of a positive mentality in long-term labor, contributing to their persistent inquiry in the study.

On the other hand, vocational students develop better labor knowledge than ordinary undergraduates in their college life due to vocational education's focus on cultivation of practical skills. The vocational education curriculum provides students more opportunities for hands-on manipulation training, bringing them richer labor knowledge and experience. They can improve their labor skills by participating in the practical production process as part of their training program. As a result, they can adapt more quickly to labor settings. Compared with this group, ordinary undergraduates have longer years of education, which focuses more on the training of basic content knowledge. They receive inadequate training in practical labor skills, such as software operation and equipment manipulation, resulting in their lower performance in labor scenarios than their peers in the vocational track.

Currently, off-campus labor activity for college students primarily comprises practical education programs like placement and voluntary services. Placement helps students enhance labor consciousness, improve labor skills, and foster labor qualities by experiencing the authentic labor

process through on-site engagement. In the meantime, participating in volunteer activities allows students the chance to serve the community, improve their problem-solving skills, and develop competences through practice. Moreover, it helps foster upbeat attitudes, the public spirit, and sound values in students, which is the paramount role of labor education. Nevertheless, our investigation results show that almost half of ordinary undergraduates and vocational college students sampled have never participated in these two forms of off-campus labor activity, indicating inadequate participation in practical labor education and insufficient experience of labor practice among college students. Ordinary undergraduates have even lower awareness in this regard than vocational students.

## **Suggestions**

### ***Heightening the Weight of Innovation Capacity Development in Labor Education***

Labor education is instrumental in developing students' creativity and innovation capacity. The "Guidelines for Labor Education in Tertiary, Secondary, and Primary Schools (Trial)," released by the Ministry of Education of China (2020), emphasize that labor education must encourage creation and innovation in students, the major actors in the process, and motivate them to experiment with new methods and explore new technologies based on prior experiences and techniques of others. In recent years, Chinese universities have paid more attention to developing students' innovation capacity in labor education. Specifically, they offer innovation and entrepreneurship education courses and relevant competitions; students who successfully complete these courses or win places in the competition are awarded credits (Jing, 2023). However, this arrangement has not worked as effectively as expected, because students have participated for the sake of credits, and their creations are mostly imitations of winners of previous competitions.

Therefore, it is necessary to note that labor creativity education is not a matter of form but rather a process requiring substantive enactment. Peer influence and teacher support are the two vital factors for its successful implementation. Labor creativity education requires students' use of initiative, which, to some extent, comes from peer influence (Wang, 2016). Peer influence is helpful in stimulating the competitive mentality in students, who might be spurred to actively engage in innovation activity by the role model effect of peers or by their desire to gain recognition from peers. Thus, it is important to increase inter-student interactions in labor creativity

education. Furthermore, teacher support plays an essential role in fostering students' innovation ability. When students encounter challenges in innovation activities and feel reluctant to go ahead because of their lack of experience and knowledge, the teacher should provide extra directions.

## ***Improving Ordinary Undergraduates' Labor Knowledge through Labor Education***

First off, it is imperative to increase students' opportunities to practice in order to enhance their labor literacy. According to the "Opinions of the Ministry of Education and Other Six Departments on Further Strengthening the Practical Education Work in Universities," higher education institutions should increase class hours for practical education to ensure its thorough implementation, and more training opportunities ought to be provided for students to experience the value of labor in a real labor setting via collaboration with industry (Ministry of Education of China, 2012). More diverse forms of practical education should be experimented with, including online and offline blended practice and the "seminar + on-site placement" pattern, to meet the individual needs of students. Also, it is imperative to establish more effective feedback and evaluation mechanisms for continuous improvement of the quality of practical education.

Equally important is to improve instructional methods in labor education. Aside from the separate labor curriculum, ordinary undergraduates' labor education is typically concerned with the practical components of their specialties (Guo, 2017). Often, the teachers focus on delivering specific labor goals and certain labor methods, leading to students relying on rote-learning in the process of labor knowledge acquisition but failing to develop problem-solving skills. Yet, in practice, labor activity could take place in a diverse range of scenarios, and the challenges arising in the process of labor are unpredictable. Labor knowledge education should not limit itself to the instruction of certain manipulation methods but instead seek to foster students' ability to solve problems. Therefore, crucial to student labor knowledge acquisition are diversifying labor education methods and propelling students to solve real-world problems by various means.

Additionally, legitimate evaluation criteria for labor skills should include examinations of both students' theoretical expertise and hands-on manipulations. Currently, general tertiary education in China puts content knowledge education and corresponding examinations first, paying little regard to the training of practical manipulation, resulting in students' inability to apply knowledge in actual situations (Guo, 2017). Despite practical components having been increased in certain courses, students tend to prioritize theoretical over practical training due to the oversimplistic and

biased assessment mechanisms. Thus, it is imperative to modify the assessment criteria to direct ordinary undergraduates and their teachers to pay more attention to labor skill training.

### ***Strengthening the Education on the Value of Labor in Vocational College Students***

Vocational education aims to enhance students' skills and techniques, but it should also foster a correct understanding of the value of labor. As per the State Council of China's "Opinions on Promoting High-Quality Development of Modern Vocational Education," it is of vital importance to propagate exemplary stories of successful frontline technical and skilled workers among vocational college students, creating a labor-, practical skill-, and creation-valued education climate (Wang, 2022).

Our investigation suggests that vocational college students have a lower level of "labor consciousness" than ordinary undergraduates, which is mainly reflected by the variations in the two sub-dimensions, "perceptions of the value of labor" and "labor ethics." These variations are the result of the varied focuses of the two educational tracks. Vocational education focuses more on cultivating applied talents and thus gives less emphasis on liberal education or value education. Moreover, in the context of the surging influence of consumerism, utilitarianism, and other Internet-related popular thoughts, unitary vocational education is likely to exacerbate the students' tendencies to materialize labor, reduce emotional and moral connections with it, and regard it merely as a commercial means for earning money (Huang et al., 2022). That is why education on the value of labor and its relevant moral aspects needs to be incorporated into vocational education.

An appropriate campus climate can realize labor-related values and morality (Fang, 2019). To cultivate a labor-valued campus culture, the school can use various means, such as posters, radio, internet-based media, and school events, to increase students' exposure to excellent practices of skilled working forces. In the meantime, the teachers can select high-performing students as role models to enhance vocational students' identification with technical careers through the peer effect.

### ***Increasing Students' Participation in Off-Campus Labor Education Activities***

Participating in off-campus labor education activities, such as placement and volunteer services, is also a valuable avenue for boosting college students' labor competence. Nevertheless, our survey results indicate that the participation rates in these activities among both ordinary and vocational

college students remain low. Increasing students' participation in non-school-based labor education activities has become an outstanding issue that current tertiary education institutions must address.

Students' involvement in volunteer services is beneficial for enhancing their overall level of labor competence, including bolstering their labor skills and sharpening their conception of the value of labor as well as their labor qualities. Establishing a legitimate evaluation and feedback mechanism for volunteer activities can be effective in raising students' participation levels. In recent years, state-level advocacy and schools' efforts have resulted in the rise of volunteer activities among college students. With it, however, come the challenges, such as the superficiality of the volunteer activities and the illegitimacy of students' motives (Zhou et al., 2017). Since a certain amount of volunteer service provision means some credits in most universities, a portion of students participate in volunteer activities merely for the purpose of earning credit, which is against the spirit of volunteer activities, i.e., dedication to public interests. A sound evaluation and feedback mechanism can help identify volunteer activities that inspire students' sense of meaning and screen out those that are unproductive in terms of social significance. It will also contribute to developing volunteer activities that support students' study of their specialties. Additionally, participants can receive feedback on the outcomes and impacts of their volunteer services through internet-based media platforms.

Off-campus practical education programs, such as placement, give college students the opportunity to apply and improve their knowledge in practice and develop a comprehensive understanding of all aspects of labor. The school can boost students' participation in off-campus labor activity by strengthening school-industry cooperation and expanding channels of placement provision. Currently, placement arrangements for college students primarily occur in the final semester, leaving a significant gap that hinders the development of student labor competence. Summer internships might be valuable practices. Some college students have voluntarily made attempts at summer internships but failed to reach desired outcomes due to a lack of information support and protective guarantees (Wang et al., 2019). Therefore, it is advisable for the school to sponsor students' summer internships that align with their specialties to increase the participation rate of off-campus labor activity in them while also circumventing the risks of uninformed decisions on summer internships.

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Received: August 28, 2024

Revised: September 05, 2024

Accepted: September 20, 2024