

The Relationship between Vocational Identity and the Enhancement of Vocational Education Quality: A Case Study Based on Social Cognitive Theory

Zhou Jialin, Tangshan Polytechnic of Industry and Technology

Abstract: This paper explores the relationship between vocational identity and the quality of vocational education through a case study approach, grounded in Social Cognitive Theory. Taking Li Hao (a pseudonym), a mechanical engineering student at a vocational and technical college, as an example, the study employs in-depth interviews, participatory observation, and text analysis to reveal the developmental process of vocational identity and its impact on the quality of vocational education. The study finds that the formation of vocational identity is a dynamic process influenced by both external environments and personal experiences. High-quality vocational education significantly enhances students' vocational identity through practice-oriented curriculum design, school-enterprise cooperation, teacher support, and other factors. Self-efficacy, role modeling, and outcome expectations, key constructs in Social Cognitive Theory, are prominently manifested in vocational education. The study suggests optimizing practical teaching, deepening school-enterprise cooperation, enhancing teachers' competencies, and emphasizing the integration of theory and practice to strengthen the quality of vocational education and students' vocational identity.

Keywords: vocational identity; quality of vocational education; Social Cognitive Theory; case study; practical teaching; school-enterprise cooperation

I. Introduction

Vocational education plays a crucial role in socio-economic development by providing skilled talents and alleviating the mismatch between labor supply and demand. In China, the status of vocational education has gradually improved, especially amidst the transformation and upgrading of the manufacturing industry, where high-skilled talents have become an indispensable pillar in the industrial chain. However, the low social recognition of vocational education remains a pressing issue that needs to be addressed. Students' vocational identity not only influences their learning motivation and academic performance but also directly relates to the quality of vocational education and societal recognition of its value (Wang et al., 2022). In vocational education practice, vocational identity serves as a link connecting

individual students, the educational process, and career development, and is a key factor in improving education quality. Based on Social Cognitive Theory, this study explores the impact of vocational identity on the quality of vocational education, analyzes individual experiences to reveal the key factors influencing vocational identity and paths for educational practice improvement, and provides empirical evidence for enhancing the quality of vocational education.

This study revolves around the following core questions:

What is the developmental process of vocational identity in vocational education?

Which educational practices have a significant impact on enhancing vocational identity?

How does vocational identity influence students' perception of the quality of vocational education?

How are the key elements of Social Cognitive Theory (such as self-efficacy, role modeling, and outcome expectations) manifested in vocational education?

Using Social Cognitive Theory as the theoretical framework, the study selects Li Hao (a pseudonym), a mechanical engineering student at a vocational and technical college, as the case study subject. Through interviews, observations, and text analysis, the study explores the intrinsic connection between vocational identity and the quality of vocational education. The study aims to provide feasible suggestions for policymakers and practitioners in vocational education.

II. Literature Review

Vocational identity refers to an individual's identification with and commitment to their vocational role, reflecting their self-definition of their profession and recognition of its value (Erikson, 1968). It encompasses not only emotional identification with the vocational role but also cognitive understanding of vocational goals, responsibilities, and their social significance (Holland, 1997). In the context of vocational education, vocational identity directly affects students' learning attitudes and practical outcomes, becoming one of the core elements for enhancing the quality of vocational education (Wang et al., 2022).

In recent years, research on vocational identity has mainly focused on its formation and function. The formation of vocational identity is influenced by multiple factors, including sociocultural backgrounds, educational processes, and individual experiences (Guo & Li, 2019). Practical training courses and enterprise internships in vocational education are considered important pathways for cultivating vocational identity. Vocational identity serves as the psychological foundation for individuals' career development, enhancing learning motivation, alleviating anxiety in career choices, and facilitating the internalization of vocational roles (Brown & Lent, 2013). These studies provide a solid theoretical foundation for understanding individual vocational identity.

Social Cognitive Theory and the Quality of Vocational Education

Proposed by Bandura (1986), Social Cognitive Theory emphasizes the shaping of self-efficacy and outcome expectations through the interaction of behavioral,

environmental, and cognitive factors. The three core elements of this theory hold significant importance in vocational education research:

1.Self-Efficacy: Refers to an individual's belief in their ability to complete specific tasks or achieve goals. Students with high self-efficacy tend to exhibit stronger learning motivation and practical abilities (Zimmerman, 2000).

2.Role Modeling: By observing the successful experiences of others, students can develop expectations and behavioral guidelines for their future careers. This is particularly evident in activities such as skill competitions and alumni sharing in vocational education (Lent et al., 2002).

3.Outcome Expectation: Refers to an individual's predictions about the outcomes of their behaviors. A clear career development path and good education quality can enhance students' confidence in their future and their identification with vocational education (Schunk, 2012).

The Connotation and Evaluation of the Quality of Vocational Education

The quality of vocational education is primarily embodied in the following aspects:

1.Curriculum Design: A curriculum model that integrates theory and practice is central to the quality of vocational education. Research indicates that the integration of industry and education, as well as school-enterprise cooperation, can effectively enhance the practicality of vocational education and students' vocational skills (Wang et al., 2021).

2.Teacher Competence: Vocational education teachers need not only academic abilities but also rich industry experience to ensure that teaching content aligns with actual job requirements (Chen et al., 2020).

3.Practical Training Environment: Advanced practical training equipment and authentic enterprise cooperation environments have a direct impact on improving students' vocational skills (Li et al., 2020).

Existing research suggests that vocational identity is an important variable for enhancing the quality of vocational education, and Social Cognitive Theory provides a crucial theoretical framework for exploring individual psychology and behavior in vocational education practices. However, current research lacks in-depth exploration of the specific mechanisms underlying the relationship between vocational identity and education quality, especially empirical research based on case studies. Therefore, this study, through the typical case of Li Hao, combined with the three key elements of Social Cognitive Theory, explores the mechanism of vocational identity in the quality of vocational education, providing theoretical and empirical support for vocational education practices.

III. Research Design

1. Research Methods and Participants

This study employs a qualitative research approach, integrated with a case study strategy, to explore the relationship between professional identity and the quality of

vocational education through in-depth interviews, participatory observation, and text analysis. Qualitative research enables the in-depth exploration of individuals' subjective experiences and their interaction with social contexts, revealing key mechanisms in vocational education practice (Merriam, 2009). This method is particularly suitable for investigating the formation process of professional identity and its interplay with educational quality.

The case study participant is Li Hao, a second-year student majoring in mechanical engineering at a key vocational and technical college in a certain province. Li Hao exhibits the following typical characteristics, which enhance the representativeness of the study:

Significant changes in professional identity: Li Hao's professional identity has evolved from confusion at the beginning of his enrollment to a high level of engagement currently, demonstrating the complete process of professional identity development.

Representative educational background: The college where Li Hao studies is a model institution in the field of mechanical engineering within the region. Its close collaboration with enterprises and the integration of industry and education in its curriculum design provide a highly representative educational environment.

Embodiment of social cognitive theory: Li Hao's learning experience reflects the concepts of self-efficacy, role modeling, and outcome expectations from social cognitive theory, which play crucial roles in the development of his professional identity within vocational education.

2. Data Collection and Analysis

This study adopts a diversified strategy for data collection and analysis to comprehensively explore the relationship between professional identity and the quality of vocational education. Data collection encompasses three main aspects: in-depth interviews, participatory observation, and text analysis.

Firstly, detailed information was collected through in-depth interviews with Li Hao, his teachers, homeroom teacher, and two classmates. The interviews focused on professional identity, educational quality, and social cognitive theory, aiming to gain a comprehensive understanding of the formation process of Li Hao's professional identity and its interaction with educational practice. The questions in the interviews were meticulously designed to reveal Li Hao's cognitive and emotional changes in different educational contexts.

Secondly, participatory observation served as an important data collection method in this study. The researcher conducted full observations during practical training classes, skill competition preparations, and enterprise internships, recording Li Hao's behavior, teacher-student interactions, and team collaboration. Through observation, the researcher could intuitively present the impact of the vocational education environment on Li Hao's professional identity, thereby enriching the data.

Lastly, text analysis was conducted on Li Hao's learning logs, skill competition summaries, and key excerpts from observation records, further validating and deepening the findings from interviews and observations. This process provided multidimensional data support for the study, ensuring its breadth and depth.

In terms of data analysis, the study employed coding and thematic analysis methods. Firstly, the interview transcripts and observation records were transcribed verbatim and coded. After repeated readings, several key themes were identified, such as "the establishment of professional confidence" and "the impact of practical training courses." These themes reflect the relationship between professional identity and educational quality. Combining social cognitive theory, the study mapped the data onto three dimensions: "self-efficacy," "role modeling," and "outcome expectations," revealing the mechanisms of these factors in vocational education. To ensure the credibility of the research conclusions, the study also utilized triangulation by synthesizing results from different data sources to ensure the robustness of the conclusions.

3. Research Ethics

This study strictly adheres to ethical principles, ensuring that all participants participated in the study with informed consent. All participants signed informed consent forms before the study, clearly understanding the research purpose and the use of their personal data. To protect participants' privacy, pseudonyms were used to handle all participant information during the study, and it was ensured that the data was used solely for academic purposes and would not be disclosed to third parties without participants' consent. Furthermore, strict confidentiality measures were taken for data storage, with all data stored in encrypted files accessible only to research team members.

4. Research Limitations

Although this study strives to enhance the credibility of its conclusions through diversified data collection and analysis methods, it still has certain limitations. Firstly, the single case study sample limits the generalizability of the research findings, as it is difficult to comprehensively summarize universal phenomena in vocational education through one case alone. Secondly, the researcher's observations and analyses may be influenced by personal perspectives, introducing some subjective bias. Finally, the external validation of the research results is insufficient, and the robustness of the conclusions needs further verification through larger samples or quantitative data.

To overcome these limitations, this study has utilized multiple data sources, such as interviews, observations, and text analysis, and enhanced the credibility of the conclusions through the support of social cognitive theory. Future research can further validate and expand the study results by expanding the sample size and incorporating quantitative data.

IV. Research Findings and Discussion

Developmental Process of Professional Identity

Li Hao's professional identity development progressed through four stages: "initiation—turning point—growth—ongoing challenges". The challenges faced by Li Hao are somewhat typical and representative of those that many students may encounter during their professional identity development. The subsequent research report will delve into the specific experiences of Li Hao at each stage, exploring how he overcame challenges and how these experiences influenced his career choices and development.

1. Developmental Process of Li Hao's Professional Identity

Li Hao's career choices were primarily driven by family economic pressures and pragmatic demands of the social environment. In interviews, he repeatedly mentioned that vocational education serves as a pathway to "rapid employment," and "mechanical engineering," as a popular major, aligned with his family's expectations for improving his future life. His initial professional identity was more passive, relying on the guidance of others' advice and external information. This indicates that vocational education students often exhibit strong external control characteristics in their initial professional identity, which is distant from active internalization of professional values.

As the course progressed, Li Hao experienced several key events of "completing challenging tasks" in practical training classes, gradually recognizing the significance of vocational skills. For example, when tasked with machining complex mechanical parts, he overcame difficulties in equipment adjustment and received high recognition from teachers and team members. This experience enhanced his professional confidence and interest in the mechanical major. Such successful experiences not only promoted the internalization of his professional role but also provided emotional support for his professional identity.

Li Hao's focus gradually expanded from personal skills to the recognition of team collaboration. In a team processing project, he not only undertook complex tasks but also proactively assisted team members in optimizing processes and proposing improvement suggestions. Observation records indicate that this role transformation was highly praised by teachers and classmates, further enhancing his cognition of the "social contribution" dimension in vocational education.

Despite excelling in practical operations, Li Hao still faced pressure in theoretical courses. He candidly admitted to having low interest in theoretical courses such as mechanical drawing, mainly because "the course content is boring and not closely integrated with practical training." This issue exposes a common contradiction in vocational education, where the teaching methods of theoretical courses struggle to meet the needs of highly practical majors. This disconnect not only limits the further

deepening of his professional identity but also affects his learning efficiency and confidence to some extent.

Li Hao's experience confirms the gradual process of professional identity transitioning from external drive to internal value internalization. This process aligns with the dynamic development of "self-efficacy" in social cognitive theory. Key events and practical success are core factors in stimulating professional identity, while the disconnect between theory and practice in educational practice may become an obstacle to deepening professional identity. In the future, the relationship between the two should be better coordinated in curriculum design to achieve continuous enhancement of professional identity.

2.Key Influences on Vocational Education Quality

(1)Adequacy and Practicality of Teaching Resources

The teaching resources at Li Hao's college, including advanced practical training equipment and diversified teaching methods, provided a solid foundation for the improvement of his vocational skills. For example, in a practical training project in collaboration with an enterprise, students directly participated in the production and processing of parts, which were ultimately used in the enterprise's production line. This "realistic value of task outcomes" not only enhanced students' professional confidence but also made them feel the actual contribution of vocational education to industrial development.

(2)Supportive Guidance and Personalized Feedback from Teachers

Li Hao frequently mentioned the guiding role of a practical training teacher during his critical learning stages. This teacher not only provided technical assistance but also, through emotional support and behavioral incentives, helped Li Hao overcome his initial fear of difficulties and gradually develop self-confidence. Especially during his preparation for the provincial skills competition, the teacher's attention to his learning methods and psychological state directly influenced his performance in the competition and his planning for future career development.

(3)In-depth Application of School-Enterprise Cooperation Models

The development of Li Hao's professional identity was inseparable from the college's school-enterprise cooperation model. By participating in projects under the guidance of enterprise mentors, he not only mastered the operation of advanced equipment but also directly experienced real work processes. This form of "situational learning" allowed students to convert classroom knowledge into practical skills and understand the requirements of the professional environment through interactions with enterprise employees. This model served as an important bridge for improving the quality of vocational education.

(4)Potential Influence of Campus Culture on Professional Identity

In addition to curriculum and practice, role model promotion and competition incentives within campus culture are also important factors influencing professional identity. For example, Li Hao greatly admired a champion alumnus from a skills competition and attempted to imitate the other's study habits and technical strategies. He mentioned that the school created a learning atmosphere that "advocates technical achievement" through role model case promotion and skills competitions, providing students with clear career orientation and values support.

3.Discussion

Vocational education quality shapes students' professional identity through multidimensional educational practices. The combined effects of advanced resources, school-enterprise cooperation, and supportive teachers not only enhance educational outcomes but also strengthen students' sense of professional belonging. This process once again confirms the importance of "outcome expectations" and "role model effects" in social cognitive theory within vocational education practice.

1.Comprehensive Embodiment of Social Cognitive Theory

(1)Progressive Development of Self-Efficacy

Li Hao gradually established self-efficacy through the successful completion of multiple practical tasks. He not only had high confidence in his machining skills but also further enhanced his sense of self-worth through leadership roles in team projects. This progressive development of self-efficacy laid the psychological foundation for the deepening of his professional identity.

(2)Direct and Indirect Influences of Role Models

Role models played a dual role in Li Hao's professional identity process. On the one hand, the success of skills competition winners motivated his learning motivation; on the other hand, his teachers conveyed a profound understanding of "the value of vocational education" through their actual actions. This combination of direct and indirect role model effects jointly promoted his career development.

(3)Reinforcement and Realization Pathways of Outcome Expectations

Li Hao's outcome expectations for his future career mainly revolve around the dimensions of "economic improvement" and "career development." His trust in vocational education is based on the feedback mechanism of educational quality, where teaching practice and personal growth are directly linked. His experience proves that clear outcome expectations can stimulate students' learning motivation and achieve expected goals through high-quality educational practices.

The three key elements of social cognitive theory exhibit close connections in Li Hao's case: practical success leads to self-efficacy, role model influences shape learning motivation, and outcome expectations drive the integration of educational goals with career aspirations. This provides theoretical support and practical reference

for how to stimulate and enhance students' professional identity in vocational education practice.

V. Conclusions and Recommendations

Based on the case study of Li Hao, this research explores the relationship between professional identity and the quality of vocational education, drawing the following main conclusions:

The formation of professional identity is dynamic. The development of professional identity is a gradual process transitioning from passive choice to active identification, influenced by both external environments and personal experiences. Practical training courses and successful experiences are crucial factors in stimulating professional identity, while learning pressure and skill challenges may lead to short-term fluctuations.

The quality of vocational education is influenced by multiple aspects. High-quality vocational education, through practice-oriented curriculum design, authentic work experiences through school-enterprise cooperation, and personalized guidance from teachers, can significantly enhance students' professional identity. This educational quality is manifested in the integration of knowledge and skills, a supportive learning environment, and positive feedback from a sense of achievement.

The applicability of Social Cognitive Theory. Social Cognitive Theory provides an important explanatory framework in the context of vocational education. Self-efficacy is enhanced through practice and feedback, role models motivate students' learning drive and career goals, and clear outcome expectations promote students' active participation in the educational process.

In response to the deficiencies and areas for improvement in vocational education practice, the following recommendations are proposed:

Firstly, the participation and sense of achievement in practical teaching should be strengthened by increasing the proportion of complex practical training tasks and real-world projects, allowing students to accumulate more competent experiences through practice. Additionally, more real-work scenario cases should be introduced into curriculum design, and situational teaching methods should be adopted to enhance students' professional engagement.

Secondly, the depth and breadth of school-enterprise cooperation should be optimized. It is necessary to strengthen the standardization and long-term nature of cooperation to ensure that students can participate in the entire production process, thereby increasing their awareness of the professional environment. At the same time, a diversified enterprise mentor mechanism should be established to provide more career guidance and practical opportunities.

Furthermore, enhancing teachers' vocational education competencies is crucial. More industry practice opportunities should be provided for vocational education teachers to help them better connect theory with practice. Teachers should be encouraged to adopt student-centered teaching methods, enhancing students' professional identity through incentivization and guidance. Simultaneously, a positive campus cultural atmosphere should be fostered, utilizing activities such as skill competitions and stories of outstanding graduates to set examples and strengthen students' sense of career aspirations. Schools should also pay attention to students' mental health, helping them cope with learning pressure and uncertainties in career choices.

Lastly, it is essential to emphasize the organic integration of theory and practice. Theoretical courses should incorporate more content that combines theory with practice, for example, verifying the applicability of theoretical knowledge through practical training sessions, and encouraging students to summarize theoretical methods through practice, achieving the internalization and transfer of knowledge.

References

- [1] Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- [2] Brown, S. D., & Lent, R. W. (2013). *Career development and counseling: Putting theory and research to work* (2nd ed.). Wiley.
- [3] Guo, J., & Li, S. (2019). Vocational identity development in the context of Chinese vocational education. *Journal of Vocational Behavior*, 110, 22–31.
- [4] Holland, J. L. (1997). *Making vocational choices: A theory of vocational personalities and work environments* (3rd ed.). Psychological Assessment Resources.
- [5] Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation*. Jossey-Bass.
- [6] Schunk, D. H. (2012). *Learning theories: An educational perspective* (6th ed.). Pearson.
- [7] Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25(1), 82–91.

Appendix

Interview Outline

I. Background and Starting Point of Professional Cognition

What motivated you to choose to study XX major at a vocational and technical college? (What role did family, friends, or school play in this decision?)

Are you satisfied with this choice? Why or why not?

When you first entered the college, what were your views on your future career? (Were you clear about the direction of career development?)

Have your career aspirations and attitudes changed since enrollment? (What significant events or experiences have contributed to these changes?)

II. Development of Professional Identity

How do you currently view your identity as a vocational education student?

Have there been any moments in your academic and personal life at school when you felt proud or uneasy about your choice?

What do you see as your role in the field of mechanical engineering? Does this align with your expectations for your future career? Why or why not?

During your learning process, have you become aware that you are becoming a future "XX professional"? (What specific events or processes have contributed to this feeling?)

Has your professional identity been influenced by the school or teachers?

III. Learning Experiences and Educational Quality

How helpful do you find the school's teaching content and methods in enhancing your skills? (Are there any courses you particularly like or dislike? Why?)

What specific projects in practical training made you feel "I've got this"? (How much did this experience contribute to building your professional confidence?)

How has the school's practical training environment, equipment, and corporate cooperation helped your practical learning? (Can you provide an example of a particularly meaningful practical training session or project?)

If you were to evaluate the quality of the school's education, what aspects would you focus on? Have these aspects influenced your professional identity?

IV. Key Elements of Social Cognitive Theory

Self-Efficacy

(1) How confident are you in your ability to master skills related to mechanical engineering? What experiences have enhanced your confidence?

(2) What specific tasks do you think you can competently perform in your future career?

Role Modeling

(1) Have you had any particular role models or individuals you admire in school or vocational education-related activities? Who is this role model, and what behaviors or achievements of theirs have inspired you?

(2) How much has the success of your role model influenced the establishment of your career goals or confidence?

(3) Does the school motivate you by promoting the achievements of role models (such as skill competition champions or outstanding graduates)?

Outcome Expectations

(1) What are your career expectations after graduation? Do you think your current learning will help you achieve these goals?

(2) If you do not enter your ideal career position as expected, how would you view this vocational education experience?

V. Relationship between Professional Identity and Educational Quality

When your professional identity strengthens, does your learning motivation change? Please provide an example.

Has the school taken effective measures to help students enhance their professional identity?

What educational practices at the school do you think have most directly enhanced professional identity?

If you were to give advice to the school or teachers as a student to help improve professional identity and teaching quality, what would you say?