Construction of Taste in Doctoral Students' Researcher Identity

A Study Based on the Talent Cultivation Model of Southwest Associated University

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Abstract. Starting from Yang Zhenning's concept of taste in scientific research, this study analyzes the educational experiences of several scholars who graduated from Southwest Associated University. By examining authentic historical materials, it explores the formation process of academic taste, reflects on the cultivation mechanism of researchers' identities, and constructs a dynamic context for the development of researcher identities. This provides references and suggestions for the current doctoral training in China. The study demonstrates that the formation of academic taste requires a complete cultivation process: interest—training—selection. A clear indication of academic taste is the researcher's strong motivation to study a specific problem or field. At this point, the emergence of this motivation awakens the researcher's identity awareness. The construction of a researcher identity requires a broad general knowledge base, inquisitive professional guidance, and independent selection of research directions. However, the continuous consolidation mechanism of researcher identity needs further discussion and discovery.

Keywords: Researcher, Academic Taste, Southwest Associated University

1 INTRODUCTION

In the context of doctoral education, the construction of a researcher's identity has always been a critical focus within China's doctoral education system. Doctoral candidates are high-level learners and scientific explorers[1]. The core function of doctoral education is to cultivate the next generation of academic researchers, and recognizing doctoral students as "researchers" is both an inherent requirement and a fundamental expression of trust[2]. Even in an era of rapidly developing knowledge economy, which demands multifaceted comprehensive qualities and transferable skills from top-tier talents, the essential qualities of a researcher—broad knowledge, academic passion, and research capabilities—remain the foundational and critical pursuits of doctoral education. Becoming a researcher is a crucial marker of the professional socialization of doctoral students. The identity of being a researcher, committed to academic endeavors, is

P. Batista et al. (eds.), *Proceedings of the 2024 International Conference on Humanities, Arts, Education and Social Development (HAESD 2024)*, Advances in Social Science, Education and Humanities Research 892,
https://doi.org/10.2991/978-2-38476-344-3_25

the core essence of a doctoral candidate, and whether universities can continue to cultivate a qualified new generation of academic professionals remains a key issue in the field of higher education today[3].

In 2005, Qian Xuesen raised a question that still demands an answer: "The reason China has not fully developed is that no university can operate according to the model of cultivating talents for scientific and technological inventions; there is no unique innovation, and outstanding talents are not being produced. This is a significant issue." As the pinnacle of the higher education system, doctoral education bears the societal responsibility of cultivating top-notch innovative talents and is the most active and dynamic transformative force in the new quality production factor. The core of new quality productivity is innovation-driven, and the essence of innovation-driven is talent-driven[4]. Establishing an educational model that belongs to China for cultivating talents in scientific and technological inventions is an inescapable duty of contemporary educators.

In January 2020, during an inspection of the former site of the National Southwest Associated University (NSAU), President Xi Jinping emphasized the close connection between education and the nation's future[5]. Reflecting on that time, more than a century ago, NSAU, which produced numerous outstanding talents and shone brightly in the history of Chinese and even world education, was born in a unique historical context. Although it existed for only eight years, it produced two Nobel Prize winners, five recipients of the State Preeminent Science and Technology Award, eight "Two Bombs, One Satellite" merit scientists, and over 100 academicians. Nobel laureate in physics, Yang Zhenning, once said, "What I learned as an undergraduate at NSAU, and later as a master's student, was on par with, if not superior to, the best universities in the United States at the time"[6]. "My love for physics was essentially formed during the years 1938-1944 when I was a student in Kunming. It was during those years that I learned to appreciate the work of Einstein, Dirac, and Fermi..." [7]. Wang Hao, an academician of the American Academy of Arts and Sciences, obtained his PhD from Harvard University in just 15 months. He said, "Because of this training at NSAU, when I arrived at Harvard, it was like repeating the process, only having to pass a few exams and write another dissertation".[8]

Although NSAU's brief existence has become a distant memory, its educational philosophy and talent cultivation model still deserve our reflection and learning today. Reviewing historical materials, we can see that NSAU's talent cultivation model was rooted in China and looked towards the modern world. Its graduates were talented and worked in various fields, all striving to become outstanding figures contributing to the progress of the nation. Even in their twilight years, recalling their student days at NSAU, they were often moved to tears, their memories vivid. In these recollections and reflections, the importance of cultivating academic taste in students at NSAU is repeatedly mentioned. Yang Zhenning once used the word "taste" to summarize this quality: "What one learns and the training one receives from childhood to youth, the directions and methods of thinking one encounters when entering a discipline, combined with one's personality, create a person's 'taste.' This will have a decisive impact on their future work"[9]. Whenever I think of my university life in China, memories of the excellent learning atmosphere at NSAU always move me. Life at NSAU provided me with

opportunities to learn and grow. My preferences in physics were mainly cultivated during the six years I spent at that university. Although I later encountered frontier research topics in Chicago, my inclinations toward certain aspects of physics were formed during my years in Kunming"[10]. Huang Kun, an academician of the Chinese Academy of Sciences and a recipient of the State Preeminent Science and Technology Award, recalled his student experience at NSAU: "In terms of academic standards, NSAU was very high. I remember that when I later went to the UK for graduate studies, compared to other students, I was clearly a cut above them. Although I was there to pursue a doctorate, in reality, I was already at a postdoctoral level. This was due to the deep academic foundation at NSAU".

From the above, it is evident that although NSAU's educational and training system did not involve doctoral education, the professional scholars who emerged from NSAU attributed their academic achievements to it, which provides real support for the selection of historical materials in this study.

Therefore, this study aims to take NSAU's talent cultivation model as an ideal type, analyzing how to cultivate students' academic taste within the educational system, and understanding the role of academic taste in the formation of a researcher's identity. The theoretical framework is based on the professional socialization theory of doctoral students proposed by Weidman etal[11]. This theoretical model describes the developmental process of professional socialization among doctoral students. In this model, environmental factors are process factors, with the university environment being the core factor in the professional socialization of doctoral students. The support and influence of various relationships within this environment can provide a reference for this study. Through historical analysis, this study organizes historical materials on the academic experiences of some scholars who graduated from NSAU to understand how NSAU's talent cultivation model fostered students' academic taste and how this academic taste promoted the formation of their researcher identity, with the aim of providing some references and insights for today's doctoral education and training.

2 RELATED RESEARCH

Etymologically, "identity" stems from the Latin root "idem," evolving through the Middle French word "identité" (sameness) and the Late Latin "identitas," carrying connotations of repetition (again and again), rapidity, sameness, and essence[12]. The concept of identity can be interpreted from three perspectives: (1) The expression and maintenance of identity, i.e., "Who am I?". This involves an individual's awareness of their uniqueness, as described by Tajfel and Turner, which helps individuals affirm the consistency of their identity across different times and spaces[13]. It is "the sameness of a person or thing at any place and time"[14]. (2) The similarity and opposition within identity, i.e., "Who am I similar to or different from?". As Ricoeur pointed out, identity involves dimensions that emphasize both the uniqueness and similarity of the individual while also focusing on differences from others[15]. This process involves pursuing similarities or distinctions with others, through which individuals establish relationships between themselves and the group, thereby forming social identity[16]. The process of

identity formation is thus the process of seeking similarities or distinctions with others. "Through this self-positioning, individuals establish relationships between themselves and the group"[17], and social identity emerges from this process. (3) Factors influencing the individual, i.e., "Who influences me?". Mead divided the "self" into the active "I" and the "Me," which is formed under the influence of others. In summary, identity can be understood as an individual's recognition and acceptance of their identity and belonging to a group, as well as the emotional and value experiences generated from this[18]. These three dimensions collectively constitute the current academic understanding of identity.

As a sub-concept of identity, doctoral identity refers to the process by which doctoral students confirm their identity and belonging within the doctoral student group. It includes the cognitive aspects of doctoral identity, as well as the accompanying emotional experiences and behavioral patterns[19]. The core essence of doctoral identity is the researcher identity, and the process of professional socialization in doctoral students is a transformation from the student identity to the researcher identity. Merton suggested that in forming a professional self, students develop a set of knowledge, skills, attitudes, and values that allow them to control their behavior in professional contexts and even beyond, which constitutes the process of professional socialization[20]. One of the meanings of forming this "professional self" is the formation of a researcher's identity, signifying the acquisition of a new role in the life of a doctoral student[21]. Previous research has found that establishing identity as a doctoral student enhances confidence and motivates research innovation, and scholars have proven that the perception of doctoral identity or a sense of belonging to the academic community positively promotes doctoral innovation[22]. Green's research confirmed that a strong doctoral identity is a key indicator of the level of higher education development and the academic support for doctoral students[23]. Zheng Mi argued that the realization of doctoral identity is a critical task and process in doctoral professional socialization[24]. Zhao Jialu et al. pointed out that doctoral identity is an influencing factor with cultural attributes and is a significant factor influencing doctoral professional identity. Weidman's model divides the doctoral students' professional socialization process into different stages, including entry, formation, cultivation and independence. Each stage has its own specific development tasks and challenges. In each socialization stage, the interaction between doctoral students and their supervisors, peers and other professionals is a key factor. These interactions help doctoral students form their understanding, expectations and behavioral norms of the discipline they are engaged in. In this theoretical model, personal background factors are input factors and antecedent factors, including motivation, attitude, etc.; environmental factors are process factors, among which the university environment is the core factor of doctoral students' professional socialization, and there is also the support and influence of various relationships in the environment; identity recognition among the result factors is the realization form of doctoral students' professional socialization. This study mainly focuses on the analysis of process factors.

The term "taste" in English encompasses a wide range of meanings, including sense of taste, sampling, interest, and aesthetic judgment. One of the definitions provided by the Collins Dictionary is that a person's taste refers to their choice of things they like or buy, such as their clothes, possessions, or music. In scientific research, however, the

concept of "taste" was introduced by Nobel Prize-winning physicist Chen-Ning Yang in the early 1980s. Yang described it as follows: "A person's approach and method of thinking, combined with their past training and personality, will create something called 'taste' in English, which will have a significant, perhaps even decisive, impact on their future work." In Yang's view, taste is formed through the interaction of various factors during the course of a researcher's scientific journey. He noted, "The formation of taste occurs somewhat earlier than the development of style, often emerging before one has even begun conducting research." Yang highly valued this attribute, stating, "It has a crucial and long-lasting impact on physics because it determines what questions you like to ask, what questions you prefer not to ask, what problems you are interested in, and what methods you prefer to use in solving them. Everyone forms their own philosophy based on their past experiences... It is important to recognize its crucial role in one's work and to control it appropriately."

Yang has also used terms like "preference" or "likes and dislikes" to explain the concept, and some scholars have translated it as "aesthetic taste." However, Yang himself has never fully endorsed any particular Chinese translation: "While 'style' can be translated as “Feng Ge” in Chinese, I am unsure how to translate 'taste'; some have translated it as Pin Wei, but I don't think this is the most accurate translation."

In summary, the connotations of "taste" include the following aspects:

1. Taste often emerges before formal scientific research begins, and it is shaped during training through the integration of an individual's personality.
2. Once established, taste leads individuals to form their own academic preferences, developing a particular inclination towards specific research questions and methodologies.
3. Taste represents a level of interest higher than general curiosity but has not yet reached the stage of being a "calling." It is an advanced stage of general interest, yet still falls short of establishing one's career path or research style.
4. Taste is a form of discernment, reflecting an appreciation for the "beauty" in scientific research.

In the field of education, previous discussions on interest or vocational calling have often focused on more definitive states and have not adequately described the initial stage of forming academic taste. Therefore, this study adopts the translation "aesthetic taste" to distinguish "taste" from the more commonly discussed concepts of interest and vocational calling.

In understanding the connotation of "taste," this study draws on the theoretical framework of situational and individual interest as classified by scholars such as Krapp and Hidi, to better differentiate between interest and taste. Situational interest refers to the interest that arises from the interaction between an individual and their environment, often triggered by certain attractive or stimulating factors within the environment. This is the initial stage of interest development, characterized by its variability and instability. Individual interest, on the other hand, refers to a more enduring and stable positive psychological inclination towards a specific field, developed over time as one's knowledge, experience, and skills in that field increase. This is the advanced stage of interest, where interest has become an intrinsic quality of the individual, embedded in their cognitive structure and values[25]. At this stage, the individual no longer requires

external stimuli to pursue learning; they engage in learning activities proactively based on their needs. Individual interest is long-lasting and stable, significantly influencing one's abilities, cognition, and personality development, and even impacting career choices and life planning.

Thus, the understanding of "taste" can be approached from the perspective of individual interest. When situational interest evolves into individual interest, it signifies that interest has become an intrinsic quality of the person, implying that their attitude towards the object of interest will not change easily. At this point, a relatively stable and proactive interest has already been formed. The development of interest is a dynamic process, requiring a series of stages to transition from basic to advanced levels. This process necessitates the integration of both internal and external factors for interest to develop fully, which is essentially the process by which interest transforms into taste.

3 THE FOUNDATION OF TASTE: A BROAD KNOWLEDGE ACROSS DISCIPLINES

Although "taste" differs from "interest," its formation is fundamentally rooted in interest. Interest arises from exposure to a wide range of knowledge, which subtly nurtures the ability to appreciate and make discerning choices. When doctoral students first enter a particular discipline, the vast array of literature and numerous subfields often leaves them uncertain about how to find their direction. This is particularly true for doctoral students in the humanities and social sciences, where the process of selecting a research topic is especially crucial[26] . The research process for a doctoral dissertation largely depends on the research expertise of the doctoral student. Lei argues that the student's own preference is the most significant factor influencing the selection of a dissertation topic. Bauer posits that a stimulating yet manageable topic, which maintains the student's passion for research, can significantly shorten the time required to complete a degree. Pu Yao believes that choosing a research topic is the first step in writing an academic paper, as it determines the direction of the research and influences the quality and level of academic output. Scholars who have made significant contributions to their fields have always placed great importance on the selection of their research topics[27]. Lei Weiwei and colleagues suggest that the selection of a thesis topic is crucial for cultivating innovative abilities in graduate students; a well-chosen topic can significantly enhance their capacity for innovation, whereas an inappropriate choice can greatly hinder the development of such abilities. A good research topic can hone the student's research skills and is vital for ensuring the quality of graduate education.

At the National Southwestern Associated University, all students were required to study Chinese literature, English, and Chinese history during their foundational years. Science and engineering students had to take at least one course in the humanities or social sciences (e.g., political science, economics, philosophy, sociology, or introductory law), while students in the arts and law were required to take at least one natural science course (e.g., general physics, chemistry, biology, advanced mathematics, or science introduction). In addition, each college added mandatory courses specific to its field of study, which combined with the university's general education requirements.

For instance, the College of Arts and Law required non-major students to take logic in addition to the two mandatory courses, while the Colleges of Science and Engineering required mathematics and other common theoretical foundation courses. Under such a curriculum structure, almost all students developed a strong foundation in disciplines outside their major fields.

Yang Zhenning recalled that in 1942, he, Huang Kun, and Zhang Shou-lian formed the habit of gathering at a teahouse near every evening after dinner, where they would drink tea and discuss a wide range of topics, from ancient history to modern politics, from cultural patterns to the latest films. The discussions were broad in scope. Chinese contemporary novelist, essayist, and playwright Wang Zengqi, reflecting on his classmate—linguist, paleographer, educator, and former vice president of Peking University Zhu Dexi—remarked, "Possessing both a scientific mind and the temperament of an artist was, in my view, a significant advantage that enabled Dexi to achieve great success in linguistics and paleography. Perhaps this is a trait that all scholars in the humanities need." Students and faculty in the sciences were also noted for being well-rounded; for example, Wen Yiduo linked late Tang poetry to post-impressionist painting in his Chinese literature classes. When discussing the poet Li He, he also introduced pointillism, making otherwise dry textual criticism vivid and engaging. As a result, many engineering students would walk across Kunming to attend Wen Yiduo's classes. Similarly, when Zhu Guangya was a student in physics department, despite the heavy workload, he chose to attend Zhu Ziqing's literature classes without missing a session. Liu Zhaoji also noted that it was common for students in the colleges of science and engineering to take courses offered by the College of Arts, such as Feng Youlan's Chinese Philosophy, Qian Mu's General History of China, and Zhu Ziqing's "Poetry of Tao Yuanming." Likewise, arts students would take courses in the sciences, such as biology, eugenics, and psychology. Cross-enrollment between the Colleges of Science and Engineering was even more commonplace.

The broad multidisciplinary exposure not only cultivated the character and temperament of students but also became the highlight of their academic pursuits. For example, Fang Linggui, who studied in history department, sought guidance from literature professor Shen Congwen due to his love of literature. Shen lent him *The Secret History of the Mongols*, which led Fang, who was of Mongolian ethnicity, to embark on a scholarly path in Mongolian and Yuan dynasty history. Historian Wu Yuzhi, while a graduate student at Nankai University's Economic Research Institute, audited the "General History of China" course taught by history professor Lei Haizong, and applied cultural morphology—a method from historical research—in his master's thesis.

Not only were students multidisciplinary, but the faculty also engaged in broad intellectual pursuits beyond their specialized research and teaching. For instance, Mei Yiqi, the president of Tsinghua University and chair of administrative committee, was trained in electrical engineering but was also well-versed in traditional Chinese classics and Western social sciences. During his tenure, British literature professor Yen Ibsen would often solve calculus or analytical geometry problems in the margins of his books. Chemistry professor Huang Ziqing enjoyed writing classical Chinese poetry and frequently discussed poetic techniques with his colleague, literature professor You Guoen. Xu Baolu, an authority on mathematical statistics, had a deep appreciation for Chinese

classical literature and could write elegantly in both Chinese and English. This reflects the ideal of nurturing well-rounded individuals. Shen Tong, an associate professor in biology department, believed that "the study of biology also provides insights into the history of life development. Modern science itself is a tightly integrated system; natural sciences should interact with social sciences to achieve a scientifically sound knowledge structure." Similarly， dean of academic affairs, Pan Guangdan, maintained that conducting specialized research in any academic field requires a broad knowledge base. Fei Xiaotong, who was then a professor of sociology at Yunnan University, remarked that Pan's ability to navigate easily across natural, human, and social sciences was due to his broad academic foundation.

In such an environment, it was inevitable that students would be influenced by their mentors, developing diverse interests beyond their primary fields of study.

4 THE PATH TO ESTABLISHING TASTE: EXPLORATORY PROFESSIONAL GUIDANCE

The supervisor is the primary person responsible for and the main implementer of doctoral student training. He is considered to be "one of the most important people with whom doctoral students establish a relationship during the learning process", which has a significant impact on the doctoral student's study experience. The supervisor's guidance behavior has educational, management, support and production functions, which is crucial to the academic development and academic experience of doctoral students. The general knowledge base and interdisciplinary appreciation ability are both necessary foundations for professional scholarship. When scholars who graduated from Southwest Associated University mentioned important others who had a significant impact on them, they would mention the teachers' earnest teachings when they were studying, and even the brilliant spirit and speech demeanor of the teachers at that time were still vivid in their minds. Whether in class or outside, the professors of the National Southwest Associated University have guided the academic progress of the students of the National Southwest Associated University with the righteousness of traditional Chinese intellectuals and the broad-mindedness of being well-versed in both Chinese and Western learning and looking at the world.

The professional classrooms of the National Southwest Associated University have never been a one-way indoctrination of knowledge. Instead, through the charm of the subjects studied by teachers in the teaching process, many students of the National Southwest Associated University have been introduced to specific research fields and pursued for life. The unwritten rule of the National Southwest Associated University that "professors teach basic courses" has allowed many students to enjoy professional scientific research guidance in class. Li Yan once said: "For basic courses, the National Southwest Associated University always invites the most knowledgeable, experienced and respected professors to teach." Because the professors of the University of the United Nations realized very early that: "These compulsory courses are wide in scope, rich in content, and highly systematic. It is difficult for old professors who are not knowledgeable and experienced to master them and give the most benefit to students."

In terms of teaching content, the University of the United Nations has already perfectly realized the concept of "integration of science and education" in the last century. In the compulsory basic courses, the teaching content is basically to show the advancement process of the entire discipline; the special elective courses have become the stage for the professors of the University of the United Nations to show their research results. At the beginning of the lecture, Chen Yinke always wrote the historical materials to be cited on the blackboard, and analyzed and verified them step by step during the lecture, and made his complete research ideas "as fine as a hair, as peeling a banana leaf" explained it to students in a detailed way, which made students who were receiving academic training for the first time "feel like a bright light before their eyes, and they were deeply attracted by it." When Yang Shixian taught the course "Alkaloids and Natural Products", he used the main line of how Chinese and foreign organic chemists used chemical methods of decomposition and synthesis to determine the fine structure of alkaloids, and then used the method of total synthesis to make replicas of natural products, "from near to far, from here to there, in one go," used this course to reproduce a complete research process.

He Zhaowu, a historian, translator and professor at Tsinghua University, devoted his life to the study of the history of thought. He said frankly that it was Zhang Xiruo's two courses, History of Western Political Thought and History of Modern Political Thought, that made him "fall in love with the history of thought, which he had not thought highly of before". Zhang Xiruo's course made him "feel that reading the history of thought not only helped to deepen his own thoughts, but also that without understanding thoughts, it was impossible to understand the soul of a historical era". This concept became his basic viewpoint throughout his life; Li Xian, a famous historian and educator and founder of the Chinese Economic History discipline at Yunnan University, was deeply influenced by Zhang Yinlin's teaching of economic history in the "History of the Song Dynasty" class while studying at Southwest Associated University. In the second half of his academic career, economic history has always been Li Xian's main research field; Zhang Ziyi wrote Yicun Handicrafts, a book widely cited by sociological researchers, one year after graduating from university. He believed that he was inspired by Fei Xiaotong's class: "When I was about to graduate from the United Nations University, I met Mr. Fei Xiaotong. He came to the United Nations University to give lectures. I immediately felt a special interest in his lectures, so I decided to follow him to do research. This was my simple motivation to join Kuige."

Outside the classroom, the teachers and students of the United Nations University had rich exchanges and discussions. The teahouse next to the United Nations University, the collective dormitory area of professors, formal or informal academic conferences and student clubs have all become a paradise for the discussion of teachers and students of the United Nations University. Yang Zhenning recalled that he once discussed a problem in quantum mechanics with Huang Kun and others. From the beginning of drinking tea to the closing of the teahouse and returning to the dormitory, they were still debating. Now I can no longer remember each other's views during the debate, but I still remember that they got up from their beds in the dormitory late at night, lit a candle, and opened Heisenberg's "Principles of Quantum Mechanics" to continue their discussion; When Wang Zengqi recalled his years of studying at the National Southwest

Associated University, he also had a deep memory of the teacher-student salon: "The small living room was often visited by familiar classmates for tea and chat, and it became a small salon. Mr. Shen (Congwen) often came to sit and talk with everyone, and also brought his friends to talk with everyone. Lao She talked about novels and dramas; Jin Yuelin talked about novels and philosophy; we asked Mr. Jin why he studied logic, and he said he found it very interesting"; When Qian Mu taught at the National Southwest Associated University, he would live in the teachers' dormitory every Friday and Saturday, "the students either sat on the bed or stood against the wall. Some people just left, and some people went in again, often in an endless stream", and Qian Mu "did not feel tired or annoyed" about this; Yeats' dormitory became a "paradise" for students. Students such as Mu Dan, Zhao Ruihong, and Du Yunxie often went there to seek guidance on poetry, and "could smoke and drink together". When Zhou Liquan, a logician and philosopher and president of the Chinese Logic Society, was studying at Southwest Associated University, he often walked with Jin Yuelin back to the dormitory after class. During the walk, the teacher and students would always continue the discussion in class. Zhou Liquan said: "This kind of after-class walk helped me a lot and deepened my understanding of the course. I once thought of Aristotle, the master of the ancient Greek Peripatetic School, who probably taught students in this way during the Peripatetic walk." At the Associated University, teachers and students truly became both teachers and friends. "The higher you look up to him, the stronger you become... The Master is patient and good at persuading me, and he teaches me literature and disciplines me with etiquette, and I can't stop." With his exciting academic enthusiasm and equal exchanges, he built the Chinese Academy of Athens. It is in this sense that Southwest Associated University is the first modern university in China to successfully combine the modern university system with the spirit of traditional Chinese academies.

5 CLEAR SIGNS OF TASTE FORMATION: MOTIVATION TO STUDY SPECIFIC ISSUES

The sign of taste formation is the strong motivation of scientific researchers to explore specific research fields or issues with strong academic interest. Sowing freely in the vast fertile soil of knowledge, receiving guidance and digging deeply in the academic field of writing, and finally harvesting one's own fruits are the academic interests that belong to those who never give up - taste. The process of taste construction is also the process of scientific research learners combining their own personality, preferences, and thinking patterns with related scientific research fields, which is also the basis for the originality and innovation of scientific research results. Scholars who have truly made progressive contributions in the field of science have all devoted themselves to research. Such results are "original works full of romanticism", rather than the answer sheet of the task. When such a taste is formed, the researcher's identity consciousness is initially established. Of course, the characteristics of identity determine its dynamic changes, but once this identity consciousness is established, it becomes one of the doctoral students' identity roles. As long as the scientific research situation appears, this

identity can affect the doctoral students' emotions and behaviors. Compared with doctoral students whose taste has not yet been established, they fall into the "depth intermittent trap" (depth intermittent trap), have an identity crisis, and become a difficult doctor with unsatisfactory output and no future direction. Doctoral students who have their own taste are more likely to launch a research offensive in the direction of their own individual interests, and are more likely to produce more ideal scientific research results.

Ying Chongfu, an academician of the Chinese Academy of Sciences, once said with emotion: "My biggest gain at the National Southwest Associated University was that I learned the scientific way of thinking and how to think about problems." Burton Clark explained this educational result that is similar to academic interest as follows: "It is the inexpressible informal quality of the workbench relationship that produces a good or key problem in young scientists, a style of doing scientific research or talking about theory, a critical attitude and a method that calls for their rational results. This is the main thing." Only by forming an academic interest of one's own within a discipline, having one's own preferences and views, can one develop a genuine interest in a specific research field or research problem, and start exploring and studying it with professional ability, thus opening up an independent and truly personal path to becoming a scientific researcher. The clarification of this academic interest also marks the awakening and final formation of the researcher's identity. The famous translator Xu Yuanchong's translation journey began at the National Southwest Associated University. In the translation class of the Foreign Language Department of Southwest Associated University, Bian Zhilin's lecture made Xu Yuanchong exclaim with joy, which opened the door to his interest. Later, the foreign professor Bai Ying of the Foreign Language Department and his student Jin Di cooperated to translate the novel of Professor Shen Congwen of the Chinese Department into English, which demonstrated a new path for Xu Yuanchong. In the end, he became the "only person to translate poetry into English and French". He translated the "Book of Songs", "Chu Ci" and "Analects" that he had learned in Chinese class into English and French rhymes, and was nominated as a candidate for the Nobel Prize in Literature. Yang Zhenning's own enthusiasm for the phase change problem also originated from the relevant speeches of Professor Wang Zhuxi during his time at Southwest Associated University. Yang Zhenning said frankly that he did not fully understand it at the time, but he vaguely "knew that there were some wonderful things in it, and it was closely related to actual phenomena." From then on, the phase change problem became "a direction of thinking that he could not let go of."

From the statements of the scholars above, it can be seen that when they formed their own academic interests, this field became the starry sky they longed to explore and pursue throughout their lives. This pursuit carries the sense of mission of the researcher's identity and is full of appreciation for the beauty of unknown science. For Yang Zhenning and others, "it is very natural for scientists to use beauty to describe their feelings about the structure of nature, and it is not far-fetched.", "Because science ultimately needs some rules, if these rules are very appropriate, very wonderful, and very comfortable to read, this is the same as the beauty of literature or the beauty that ordinary people talk about. " When a mature researcher identity is established, scientific research becomes a journey, and the academic dilemmas encountered in the exploration

process are no longer difficulties, but exciting challenges. This challenge carries a romantic sense of mission, which means that researchers will break through the Yugong Mountain that their predecessors have failed to remove on the academic path, and be able to stand on the shoulders of scholars of all generations and make their own contributions with their own scientific research style. This is the researcher formation path mentioned by Yang Zhenning of "taste-style-contribution".

6 CONCLUSION

Although Southwest Associated University has become an unrepeatable myth, as the first talent training institution that successfully combined the traditional Chinese academy model with the Western modern university system, Southwest Associated University has an endless treasure of experience to provide for today's education reform. It proves that it is not the only path to educational modernization to completely copy the development system of Western universities. Only by taking root in the land of China, inheriting the educational tradition of thousands of years, and forming a good combination with the modern education system can a university that truly cultivates talents be developed. This may also be a solution to the "Qian Xuesen Question". For the current doctoral training, Southwest Associated University provides an idealized blueprint for academic talent training, which has a lot of reference value for the improvement of the current doctoral training system.

6.1 The Formation of Academic Taste and the Construction of Researcher Identity

In summary, academic taste is a gradually maturing attribute in the scholarly training of a scientific researcher. It possesses a unique individual character, reflecting the researcher's personal preferences in their scientific endeavors. This taste undergoes a maturation process of "interest—training—selection": starting with finding an interest through broad exploration, followed by professional guidance and rigorous training, and finally crystallizing into a clear choice of research field (a process that may be iterative until fully clarified). At this stage, academic taste becomes established and mature, marking the initial formation of the researcher's identity. The clear articulation of taste is the first step in the formation of a researcher's identity. Once this identity awareness emerges, it can be continuously reinforced through sustained environmental stimuli. Throughout this process, there may be obstacles, challenges from external environments, as well as motivational rewards from achievements. The consolidation of a researcher's identity, wherein taste evolves into a dedicated pursuit, remains a subject for further exploration and discussion.

The primary goal of doctoral education is to cultivate research talents with strong innovative capabilities, and doctoral students should possess a deep passion for scientific research. However, a significant portion of doctoral students in China pursue their degrees not out of a genuine academic interest, and the issue of insufficient motivation is particularly prevalent among direct-entry PhD students. Enhancing doctoral students'

learning motivation, especially the internal motivation derived from academic interest, is a critical challenge facing doctoral education in China. The clear articulation of academic taste is essential as it determines whether a researcher can become an independent and mature scholar, influencing their choice of future research paths and the significance of their achievements. The cultivation of academic taste is also, in another dimension, the process of forming a researcher's identity. If any link in this process is broken, academic interest cannot be clearly defined and will remain at the "interest" stage, ultimately leading to the lament of a wasted potential if it fails to elevate to the level of "taste." Therefore, in the cultivation of academic taste, it is not only the responsibility of the student but also crucial for the guidance and care of mentors and the arrangement of departmental training systems. These elements determine whether students can be placed in a social context that highlights their researcher identity, thereby facilitating the transformation of their identity.

From the perspective of identity theory, the salience of identity is not only determined by its hierarchical level within the self-system, but also influenced by social contexts and priming techniques. Specific cues related to certain identities often exist in social contexts, and individuals may exhibit certain identities due to the influence of these cues. To observe the prominence of the researcher identity among students of Southwest Associated University, one must recognize the significant impact of their social context. The academic atmosphere, the camaraderie between teachers and students, and the professional training at Southwest Associated University all contributed to creating an ideal social environment. This study analyzes the social context for the formation of researcher identity from the three-dimensional perspective of "knowledge, emotion, and intention" (as shown in Figure 1). The concept of "knowledge, emotion, and intention" can be traced back to Plato's division of the three qualities of the human soul (desire, passion, reason) in ancient Greece, but it was first systematically studied by Immanuel Kant, the founder of German classical philosophy. Through his "three critiques," Kant explored the questions of "What is man?" from the perspectives of cognition, will, and emotion, discussing human freedom and the position of man in the universe. Tracing back to Chinese civilization, Confucius once said, "Those who know it are not as good as those who love it, and those who love it are not as good as those who find joy in it." "Knowing," "loving," and "enjoying" correspond to cognition, will, and emotion, respectively. In essence, practical activities are interactions between the subject and the object. The influence of the social environment (the object) on an individual's (the subject's) cognition, emotion, and will determines its impact on the individual. Without the participation of individual cognition, emotion, and will, practical activities cannot be initiated, lack direction, and cannot be sustained. Furthermore, without the involvement of individual factors, practical activities lose their goal-oriented nature, initiative, and creativity. The root cause of many low-efficiency doctoral students falling into academic disarray and underperforming in research is their failure to cultivate a deep interest in the topics, fields, or even disciplines they study, treating research as a mere task, which makes it difficult to avoid falling into the mindset of a "worker". When doctoral students feel passive about the issues they are researching, it becomes naturally challenging for them to produce innovative results.

6.2 Doctoral Curriculum Reform Needs Further Advancement

From the historical materials of Southwest Associated University, it can be observed that both the interdisciplinary curriculum system and the broad engagement with classical texts can ignite a passionate love for research among doctoral students from various backgrounds as they step into mature research. Without genuine interest and curiosity, it is challenging to produce truly original scientific research. This highlights the urgent need for reform in the current doctoral training system in China, moving away from the "easy courses" that both teachers and students regard as mere credit-earning obligations.

First, the idea that specialized talent must emerge from a broad foundation should be emphasized. The ideal goal of doctoral education is to cultivate future "gatekeepers" of various disciplines. Before doctoral students embark on truly independent research for their dissertations, it is crucial to help them find their research interests. For first-year doctoral students, the course schedule during the initial year is particularly important. The content of the courses, teaching methods, and the personal charisma of the instructors all play a significant role in generating academic interest among doctoral students. High-level course teaching and lectures can stimulate and maintain situational interest. When a person's attention is focused on their knowledge gaps, curiosity is generated. Novelty can spark interest, such as when something is new, ambiguous, complex, puzzling, uncertain, mysterious, contradictory, unexpected, or difficult to understand. However, interest triggers cannot be generalized. The process of interest stimulation is complex and temporary; a trigger that works once may not work again, and what works for one student may not work for another. The characteristics of learners sometimes change, affecting whether the interest trigger is effective. Given that doctoral classes usually have small student numbers, instructors have the opportunity to tailor their teaching methods to individual students, helping to uncover different students' interests and transforming "easy courses" into the first foray into academic research, guiding students to discover their own interests. However, many doctoral instructors do not prioritize the phased development of students, often treating them as research assistants who need no training from the very beginning, causing many doctoral students to lose the chance to discover their own interests and get stuck in research difficulties without progress; or they disregard the individual choices of doctoral students, directly assigning topics to them, which leads to a mismatch between the students' preferences and reality, resulting in poor academic success. If doctoral students are not first regarded as "students," it is difficult to cultivate them into "researchers."

At the same time, instructors need to place greater emphasis on doctoral courses. At Southwest Associated University, foundational courses for all undergraduates were taught by renowned professors, showcasing the most cutting-edge research findings and opening the door to academic research for countless students. Today's doctoral courses not only need improvements in teacher qualifications but also have shortcomings in course content. Many doctoral courses have degenerated into tasks for earning credits, which are neither taken seriously by the doctoral students themselves nor valued by many instructors who consider the classroom useless. When doctoral students, without a solid foundation or clear research interests, directly enter research work, they either

view themselves as "workers" in their supervisor's projects, or they fall into the "depth intermittent trap", experiencing an identity crisis that leads to unsatisfactory output and a lack of direction for the future.

6.3 Supervisors Need to Establish Inquiry-Based Guidance Methods

How to provide critical guidance while respecting students' innovative thinking is a skill that the current group of doctoral supervisors needs to practice. When recalling Professor Shen Congwen's writing class at Southwest Associated University, Wang Zengqi mentioned, "Apart from setting the topic, everything else was left to the students' creativity, and the next class was based on their work. The feedback Shen Congwen gave to students was sometimes longer than their essays. Shen would also help students submit good pieces to familiar journals for publication, which was a great encouragement to the students. Mr. Shen taught with the hope that students would have an easier time, even if it meant more trouble for himself". Such an ideal guidance environment was not only due to the noble character of the professors but also to the institutional freedom that Southwest Associated University provided. Today, some doctoral supervisors are themselves caught up in the pressures of promotion and research tasks, making it even harder for them to provide such meticulous guidance to students. This has directly led to two extreme types of supervisors: the "hands-off" type and the "authoritarian" type. The former is too busy to guide students, causing students to lose their passion for research in their struggles, while the latter dictates every step, hindering the development of independent research thinking. Both of these negative guidance models fail to cultivate the ideal doctoral students who possess a strong researcher identity.

Additionally, supervisors should encourage and support doctoral students in selecting their own research topics. The process of topic selection is extremely important for doctoral students. From the perspective of degree progress, selecting a dissertation topic is a choice that determines the independent research field of a doctoral student and is an important achievement that fully reflects their originality. From the perspective of professional socialization, the clear definition of a research topic marks the true maturation of a doctoral student into an independent researcher and is a key step in developing their academic taste into scholarly aspirations. Therefore, regardless of the discipline, the process of a doctoral student independently finding a research topic is both their process of receiving research training and their process of establishing a researcher identity. Encouraging doctoral students to choose their own topics and helping those who struggle with topic selection to find a topic they are skilled at and interested in is a test of a supervisor's guidance ability.

6.4 Departments Need to Institutionalize Academic Exchange

The model of exchange and discussion needs institutional guarantees. In the memories of many students who studied at Southwest Associated University, the lively exchanges between teachers and students and the intense discussions among peers are unforgettable. Such open and equal exchanges not only provided researchers with a platform to share their views but also offered references and comparisons for them to choose their

own research fields. Only through the exchange of different opinions can researchers continually clarify whether their academic taste can mature into a lifelong research question. However, in the post-pandemic era, whether in graduate or undergraduate classrooms, increasing silence has diminished such habits of exchange. The seminar-style academic discussion model needs to be institutionalized to help doctoral students build a researcher identity in a stable academic environment.

In conclusion, the process of constructing a doctoral researcher's identity is a systematic and dynamic development process in which academic taste plays a critical role in the early stages of identity formation. Without taste, it is difficult to activate the researcher's initiative, and the awareness of the researcher identity may be hindered by passive and negative emotions, leading to the current situation where doctoral students jokingly refer to themselves as "workers." The development of academic interest into academic taste is gradually established in a dynamic cycle of knowledge accumulation, emotional nourishment, and willpower honing. Academic taste is an important starting point for researcher identity and a key cornerstone for its consolidation. How to further consolidate researcher identity after its formation and how academic taste combines with the researcher's career choices to become academic aspirations require further exploration and research.

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