

## *Original Paper*

# Academic Ability Development for Academic Master's Students: Predicaments and Pathways

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Received: May 2, 2024

Accepted: May 7, 2024

Online Published: May 14, 2024

doi:10.22158/grhe.v7n2p16

URL:<http://dx.doi.org/10.22158/grhe.v7n2p16>

### **Abstract**

*The development of academic ability is an integral component of the all-encompassing growth of academic master's students and the cultivation of talent in higher education. Nevertheless, the current developmental trajectory of academic ability among academic master's students is beset by numerous challenges. This study, grounded in the perspective of symbolic interactionism and employing a qualitative research methodology, examines the development of academic ability. Sixteen academic master's students from the Faculty of Education at Beijing Normal University serve as case subjects. The research reveals that, during the development of academic ability, academic master's students establish a system of meaning comprehension involving pinpointing, orienting, and positioning. This system is founded on their perceptions and understanding of the essence and attainability of academic ability, the chain of meaning related to the purpose of academic pursuits or the benefits they yield, and the assessment system they use to judge their suitability for academic endeavors. Building upon these findings, this study elucidates potential pathways to overcome these predicaments, considering both academic self-help and academic scaffolding.*

### **Keywords**

*academic ability, academic master student, postgraduate education, symbolic interactionism, qualitative research*

## 1. Introduction

Academic ability is recognized as a core competency for academic master's students (Jin, 2014; Cui, 2016), making its development an indispensable component of their comprehensive growth and graduate education. In 2018, General Secretary Xi Jinping emphasized the need for higher education to focus on nurturing innovative, versatile, and applied talents. In 2020, the first-ever National Graduate Education Conference since the founding of the People's Republic of China was convened, followed by a series of documents, such as "Opinions on Accelerating the Reform and Development of Graduate Education in the New Era", which standardized graduate education. These national directives regarding graduate education have provided macro-level guidance for universities and faculties in formulating educational programs. For instance, the "Graduate Education Program for the First-Level Discipline of Education" at the Faculty of Education, Beijing Normal University emphasizes the cultivation of research-oriented education practitioners and high-end academic talents in the field of education. This emphasis on research and academics at the target level has led to a variety of pathways in the educational process, including curriculum instruction, mentorship, student research project applications, and academic cultural festivals. However, at the practical level, institutional arrangements have not consistently yielded the expected outcomes.

While the development of academic ability is undeniably a crucial aspect of academic master's education, the discrepancy in compatibility between academic ability and the specific competencies required by various employment markets in different career directions has led to divergent interpretations of academic ability development among academic master's students. Consequently, there is a misalignment between individual development and institutional arrangements. Current research on the development of academic ability among academic master's students has been limited in terms of micro-level, bottom-up investigations. In reality, master's students engage in a process of understanding, recognizing, and assessing themselves, objects, and situations, subsequently taking actions and forming interactions. These actions and interactions, in turn, influence their understanding, recognition, and assessment. This interpretation draws from Symbolic Interactionism Theory. Guided by this perspective, this study employs qualitative research methods to dissect the meanings constructed by academic master's students regarding the development of academic ability, their choices of action, and the interactive processes that ensue. The study aims to elucidate the predicaments they face and identify potential pathways forward.

### *1.1 The Essence and Value of Academic Ability Development*

Academic ability, synonymous with research and scientific competence, encompasses critical thinking, practical skills, and sensitivity (Wang, 1985; Ni & Zhang, 2002; Xiao & Hu, 2006). At its core lies the ability to identify issues within a specific field and the competence to argue, explain, and solve these problems (Qiu & Mo, 2009; Li, 2016). Currently, academic master's students in China are distributed across 14 discipline categories, such as philosophy, law, and education. In the case of education,

academic ability development extends beyond foundational competencies to include the ability to abstract and elevate educational practices (Cui, 2016; Liu, 2019).

Therefore, the development of academic ability holds dual significance. Firstly, for graduate students themselves, it is a critical component of their academic competence, directly affecting their ability to meet graduation requirements such as publishing papers and writing theses, as well as influencing their future educational and career prospects (Wei, 2015). Secondly, at the national level, fostering academic ability is integral to the construction of higher education talent cultivation systems.

### *1.2 Current Status and Influential Factors of Academic Ability Development*

In general, the research capacity of graduate students in China is relatively low, with innovation skills, in particular, being underdeveloped (Yuan & Yan, 2009). There is a prevailing lack of motivation to engage in research activities, with research often perceived as instrumental (Xie & Li, 2017). Differentiating by subgroups, master's students in their second and third years tend to exhibit stronger academic abilities compared to their first-year counterparts. Moreover, students in natural sciences typically demonstrate more robust skills in literature retrieval and data processing compared to those in humanities and social sciences (Wang, 2014).

The development of academic ability is influenced by numerous factors. From an external perspective, Wang Hui (2009) discovers that various types of academic activities, such as educational salons, summer schools, and academic competitions, have differing impacts on the academic ability of master's students. Researchers like Zhang Yizhong and Li yi (2014) have found that participation in academic activities contributes most significantly to improvements in data collection and processing skills, while progress in innovative capability is comparatively slower. Lin Zhang, Chen Yanqing, and Cai Yan (2020) have pointed out that an open environment for collective discussions and interactions can stimulate knowledge sharing and mutual inspiration. Luo Jianguo, Xie Zhiwei, and Mo Lirong (2021) also emphasize that positive student-advisor relationships facilitate the development of academic ability. In contrast, research focusing on intrinsic factors is relatively scarce and predominantly quantitative. This body of research indicates that factors such as reading time, cross-disciplinary reading, professional knowledge, and imagination significantly affect the academic ability development of master's students (Yang, Ma, Zhang & Gong, 2012; Ma, Hu, Han & Chen, 2019).

### *1.3 Challenges in Academic Ability Development and Improvement Strategies*

The development of academic ability among academic master's students faces several challenges. These challenges include the lack of interactivity, experiential learning, and autonomy in classroom teaching (Yang et al., 2012), an unbalanced structure of mentor teams (Yuan & Yan, 2009), and a single evaluation standard for graduate students that does not align with the skill demands of the job market (Zhu & Cui, 2012). According to Jin Yongsheng (2014), these challenges can be categorized as knowledge challenges, power challenges, and practice challenges. Knowledge challenges primarily

stem from weak disciplinary foundations, power challenges result from the ossification of academic authority, conformity, and academic production methods, and practice challenges arise due to inadequate academic training.

To overcome these challenges, researchers suggest several action strategies. Master's students should engage in extensive reading, write diligently, and practice different thinking patterns and research methods (Xiao & Hu, 2006). Advisors can form diverse teams, conduct various academic exchange activities, and encourage students to participate in their advisors' research projects and academic events (Ma et al., 2019). Universities can establish regular academic practice systems, host academic forums, create academic exchange websites, and organize activities that enhance academic communication (Yang et al., 2012). Simultaneously, they can improve curriculum design and teaching methods to cultivate the disciplinary literacy of academic master's students (Jiang, Zhu & Fu, 2021). On a broader scale, Yuan and Yan (2009) suggest the need for a comprehensive system, including mechanisms for selecting and incentivizing graduate students and providing post-graduation support and employment feedback.

#### *1.4 Academic Ability Development from the Perspective of Symbolic Interactionism*

The majority of existing research on academic ability development has focused on macro-level factors, offering limited insights into individual consciousness and actions. Additionally, research in this area often lacks specific theoretical perspectives. This study adopts the theoretical perspective of Symbolic Interactionism Theory, aiming to conduct a detailed examination of the actions and interactions of academic master's students in academic activities such as mentorship meetings, research practices, and academic conferences, and subsequently analyze the challenges they encounter and identify potential solutions.

Symbolic Interactionism, epitomized by scholars like George H. Mead and Herbert G. Blumer, explores how individuals, in their actions, use symbols to interact with others and construct their sense of self. Grounded in pragmatist thought influenced by William James and John Dewey, and inheriting concepts like "the definition of the situation" and "the looking-glass self" from William I. Thomas and Charles H. Cooley, Mead emphasizes that the essence of the mind is the interplay between instinct and reason, the essence of the self is the interaction between the I and the Me, and the essence of society is the interaction between the self and others. In all forms of interaction, the essential element is the communication between subjects and objects, mediated through symbols such as language, words, gestures, and signs (Mead, 1962). Blumer (1986) further posits that interaction is central to social development. Through interactions with the environment, others, and even themselves (as a process of internalized social interaction), individuals continually modify and satisfy their self-needs and expectations. In essence, people fundamentally exist in interaction and are inevitably reflected in it. They create and use symbols to represent the world around them. Building on this theoretical framework, this study seeks to discover and elucidate the interactive narratives in the academic ability

development of academic master's students.

## 2. Method

This study employs a qualitative research approach, grounded in an ontological perspective that acknowledges the existence of multiple realities and an epistemological stance that recognizes the subjective perspectives of individuals. It places a strong emphasis on the meanings that phenomena and behaviors hold for the actors involved (Feng, 2009). The research process is characterized by its holistic, situational, and interactive nature, with research findings emerging from dialectical dialogues and co-construction among all parties involved (Chen, 2000).

Table 1 summarizes the data collection and analysis methods used in the study. The research context is the Faculty of Education at Beijing Normal University, a prestigious institution in the field of education in China. The study selects 16 academic master's students, each from different specialties and academic years, as individual cases. Data are collected through interviews, observations, and the collection of relevant artifacts, resulting in a corpus of over 200,000 words. Data analysis is a collaborative effort involving multiple researchers who systematically compare and condense the raw data, employ progressive coding, establish logical relationships between concepts, and provide in-depth descriptions of key events.

**Table 1. Data Collection and Analysis**

Methods of data collection	Number	Sex	Grade	Major	Plan	Data number	Methods of data analysis	
Interview	S01	Female	1	Curriculum Theory and Pedagogy	Employment	F-S01	Contextual analysis	
	S02	Female	1	Curriculum Theory and Pedagogy	Employment	F-S02		
	S03	Female	1	Educational Management	Employment	F-S03		
	S04	Female	1	Early Childhood Education	Under consideration	F-S04		
	S05	Male	1	Teacher Education	Employment	F-S05		
	S06	Female	1	Educational Management	Further study	F-S06		
	S07	Female	1	Chinese Educational History	Employment	F-S07		
	S08	Male	2	Educational Technology	Employment	F-S08		Categorical analysis
	S09	Female	2	Economics of Education	Under consideration	F-S09		
	S10	Female	2	Educational Philosophy	Further study	F-S10		
	S11	Male	2	Economics of Education	Further study	F-S11		
	S12	Female	2	Sociology of Education	Further study	F-S12		
	S13	Male	2	Educational Management	Further study	F-S13		
	S14	Female	3	Educational Management	Under consideration	F-S14		
	S15	Female	3	Educational Management	Employment	F-S15		

	S16	Male	3	Sociology of Education	Further study	F-S16
	S17	Female	-	Be studying for a Ph.D.	-	F-S17
	T01	Male	-	Teacher	-	F-T01
	T02	Male	-	Teacher	-	F-T02
	T03	Female	-	Teacher	-	F-T03
Observation	Seminar					O-S-S01
	Reading party					O-R-S01

### 3. Result

#### 3.1 Pinpointing: Perception and Understanding of Academic Ability

Before taking action, academic master's students engage in a process of understanding, perceiving, and judging themselves, the academic context, and their circumstances. At the core of these cognitive processes lies their perception and understanding of the essence and attainability of academic ability. In their eyes, academic ability encompasses a wide range of attributes, including academic qualifications, competence, and potential. It is a dynamic concept that can evolve with changes in time, space, and context.

In this phase, academic master's students navigate their academic journeys by first pinpointing their understanding of academic ability. This understanding serves as the foundation upon which subsequent actions, choices, and interactions are based. However, it is essential to note that the diversity in their perceptions can lead to varying approaches and strategies in their academic ability development. This figure illustrates the diversity of perceptions and understandings of academic ability among academic master's students. The perceptions are categorized into four quadrants, encompassing concrete and holistic understandings, as well as sudden insight and gradual development.

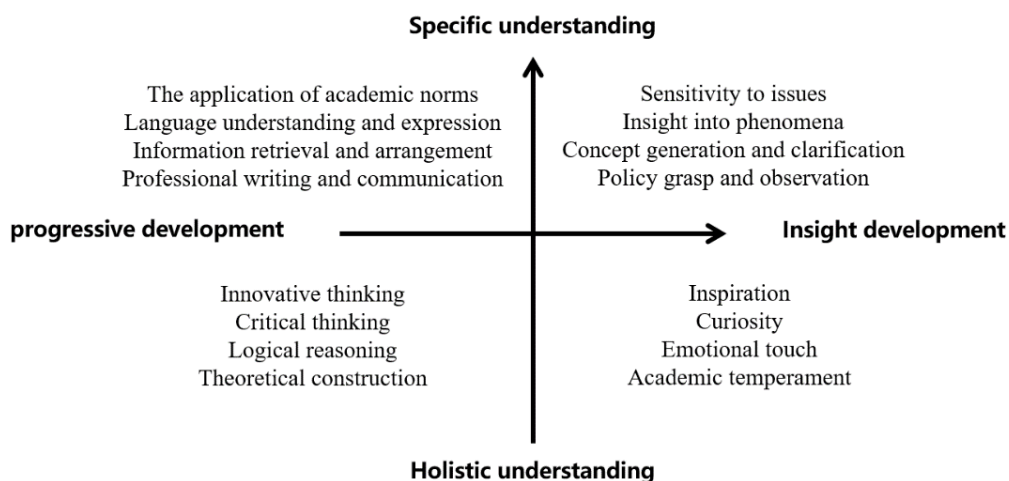


Figure 1. Classification of Perceptions of Academic Ability

#### Quadrant I: Concrete understanding and epiphanic development

In Quadrant I, characterized by concrete understanding and epiphanic development, academic master's students place a strong emphasis on practical aspects of academic ability. This quadrant encompasses a range of abilities, such as sensitivity to issues, insightful observation of phenomena, concept generation and clarification, as well as the ability to grasp and interpret policies. In this quadrant, individuals with strong academic abilities are described as having "their own set of concepts to explain everything" (F-S10) or as being able to "clearly understand the newly implemented policies and future trends" (F-S17). These abilities cannot be acquired quickly but are relatively easier to recognize and are considered innate talents. They can be expressed verbally but are challenging to control.

#### Quadrant II: Concrete understanding and gradual development

Quadrant II, characterized by concrete understanding and gradual development, focuses on discourse-related skills. This quadrant includes abilities related to adhering to academic norms, professional writing and communication, as well as the accumulation of expertise in theoretical perspectives, research methods, research topics, and information retrieval. Mastery of the "historical context of disciplinary development" (F-S16) or "specific research fields and topics" (F-S17) is emphasized. Achieving the ability to "parrot theories" (F-T01) in a particular field is seen as foundational, expressible, accumulative, and controllable.

#### Quadrant III: Holistic understanding and gradual development

Quadrant III, emphasizing holistic understanding and gradual development, places a strong emphasis on rationality. This quadrant includes abilities related to innovative thinking, critical thinking, logical reasoning, and theoretical construction. It points toward a particular scholarly thinking style characterized as "linear, straightforward, and in-depth" (F-S02). It also highlights the ability to engage in theoretical construction: "In the process of applying a learned theory, being able to generate something extra, ... contributing and enhancing the existing body of knowledge" (F-T01).

#### Quadrant IV: Holistic understanding and epiphanic development

In Quadrant IV, characterized by holistic understanding and epiphanic development, the focus is on sensibility. Some interviewees use terms like inspiration, curiosity, emotional resonance, and academic temperament to describe this type of academic ability. For example, they may say, "Speaking like a master's student, the so-called academic temperament, academic image" (F-T01). In reality, it is difficult to express this type of ability verbally. "In fact, academic ability is used in all aspects of life, but it is a silent presence" (F-S15).

These four quadrants provide a framework for understanding the diverse perceptions and developmental paths of academic ability among academic master's students. Each quadrant highlights different aspects of academic ability, from practical skills to theoretical thinking, and from concrete understanding to holistic insight. These perceptions and understandings play a crucial role in shaping academic master's students' actions, choices, and interactions in their academic journeys.

### 3.2 Orientating: A Chain of Meaning about What Scholarship Is For or Leads To

Once academic master's students grasp what academic ability entails, they embark on a path that connects their career aspirations (the visible thread) with their identification of academic values (the underlying thread). This connection results in a meaning chain that outlines what academic pursuits aim to achieve. Career planning encompasses decisions related to choosing a major, determining future academic pursuits, and making choices about employment opportunities. These career plans can vary among individuals, and even within the same individual, plans may evolve over time. In this section, we briefly categorize career planning into four distinct types.

**Table 2. Career Planning of Academic Master's Students**

	Admission planning—employment	Admission planning—further study
Current planning—employment	Come for employment and go for employment	Come for further study and go for employment
Current planning—further study	Come for employment and go for further study	Come for further study and go for further study

As shown in Table 2, the first category can be described as “come for employment, go for employment”. In this group, students primarily view their academic pursuits as a means to secure better job opportunities. They believe that obtaining a higher degree than their undergraduate level is essential in today's competitive job market. As one participant expressed, “In today's society, if you want to seek a better job, you need a higher degree than a bachelor's” (F-S11). Some of these individuals do not see the need to invest excessive time and effort in academic pursuits beyond meeting the minimum graduation requirements. Their goal during their graduate studies is to fulfill the basic academic requirements. The second type represents a shift in perspective from “come for further study, go for employment”. For some students, their initial motivation for pursuing academic excellence and considering further education may wane over time. These students may begin their academic journey with aspirations of pursuing a Ph.D. but may reconsider their goals as they progress through their studies. As one participant reflected, “When I first started, if possible, I wanted to pursue a Ph.D., but after experiencing a year of hardship, I find my desire to pursue a Ph.D. decreasing” (F-S09). Academic pursuits are no longer their sole focus, and they may start exploring alternative career paths. The third category, “come for employment, go for further study”, represents an idealized type. Some students in this category envision a future where they can seamlessly transition from employment to further academic pursuits. This group's members perceive academic ability as valuable for both immediate employment opportunities and their long-term academic goals. However, this category may be less common among participants. The fourth type, “come for further study, go for further study”, corresponds to those who envision an academic career path. They are a subset of students with strong



academic abilities and a high enthusiasm for academic pursuits. As one participant articulated, “I came to graduate school with the intention and goal of enhancing my academic abilities and conducting research. I hope to continue in this direction” (F-S15).

Differences in career planning also reflect variations in academic value identification. Academic value identification can be distilled into three facets: a sense of accomplishment, a sense of significance, and a sense of comfort. The sense of accomplishment arises from the challenges posed by academic research, the pleasure of overcoming cognitive limitations, and the joy of delving deeper into knowledge. As one participant described, “Academics allow me to continuously dig deeper, providing fresh perspectives on many phenomena in the world” (F-S06). The sense of significance derives from the act of interpreting or solving real-world problems and the pursuit of a deeper understanding of truth and goodness. The sense of comfort originates from the alignment between academic work and personal traits and the happiness experienced within the academic community. It is expressed as “the unparalleled inner joy of constantly enriching knowledge” (F-S05) or “the joy of academic stardom, similar to being a fan of academic stars” (F-S16).

### *3.3 Positioning: Assessing One’s Suitability for Academia*

Positioning and orientation emphasize one’s expectations of themselves and the external environment. The self is viewed through the lenses of “looking at oneself as others see oneself”, and academic master’s students constantly use an assessment system to be aware of their own status. This assessment system includes evaluations from oneself, evaluations from others, and self-evaluations. It allows master’s students to assess their own actions based on their understanding and expectations of others’ reactions. This assessment helps them determine whether they are suitable for academia, whether it feels like “struggling with pursuing a Ph.D.” (F-S08), having “a gap in pursuing a Ph.D.” (F-S07), or feeling “in my element” (F-S12).

Assessment includes overall, daily, and ongoing comparisons, as well as a fragmented evaluation process where receiving awards and recognitions or producing academic achievements serves as a watershed moment. It is a continuous, fragmented, and selective process. Furthermore, this assessment system is fluid. Longitudinally, it evolves over time with increasing access to databases, maturation of methodologies, rising expectations, and changing standards. Horizontally, it is relative and comparative, as one participant noted, “It’s not a fixed standard; it’s unclear and undefined, it’s a comparison within the group” (F-T01). Finally, the assessment system can be hegemonic, as the societal or academic community’s evaluation system tends to have a quantitative and standardized orientation. Metrics like “publication count” and “impact factor” serve as symbolic influences on the actions of graduate students and their advisors. They must, to a certain extent, adhere to this orientation.

In summary, assessment criteria consist of both explicit and entrenched components as well as implicit and fluid elements. Explicit criteria typically involve standardized comparisons of academic achievements and journal quality, while implicit criteria pertain to the demonstration of knowledge

reserves, problem awareness, logical deduction ability, knowledge construction ability, and communication skills. Interestingly, teachers often focus on problem awareness, while students tend to emphasize logical thinking. Explicit standards provide constraints and guidance, while implicit standards are more subjective. Contradictions between the two may lead to unclear self-positioning or constrain one's time and productivity. As one participant pointed out, "Academic achievements are just surface-level; it varies across different disciplines" (F-S08). The inherent contradictions within assessment criteria can result in a lack of clear self-positioning or can impede progress over time. For instance, for research in fields like educational history, which requires time for contemplating issues and constructing theoretical frameworks, adhering to an annual assessment schedule may hinder productivity. This discourages many students and scholars from pursuing valuable but time-consuming "unpopular research" (F-T02).

#### **4. Conclusion**

Master's students in academia perceive their understanding of academic competence and attainability as distributed along a continuum encompassing specific and holistic understanding, as well as sudden and gradual development. They establish a link between academic value identification and career planning, forming a chain of meaning regarding what academia means to them and what it can bring. They continuously employ an assessment system to gauge their self-awareness and judge whether they are suited for an academic path. The interplay of understanding perception, meaning chain, and assessment system constitutes a framework of meaning interpretation known as positioning, direction, and location. This system is partly internalized in their thoughts and partly externalized as symbols, evolving within various interactive contexts such as classrooms and academic meetings.

#### **5. Discussion**

Prior research has explored various aspects of the development of academic competence, including mentorship relationships, curriculum instruction, communication platforms, evaluation mechanisms, and career planning. This study corroborates some of these findings. For instance, in the context of mentorship relationships, it is crucial for mentors to encourage and provide opportunities for students to actively engage in research projects and academic exchange activities (Ma et al., 2019). Regarding curriculum instruction, the diversity and interactivity of interactions between teachers and students, as well as among peers, play a pivotal role in enhancing academic competence. Therefore, graduate education should move beyond didactic teaching and emphasize interaction, experiential learning, and autonomy (Lin et al., 2020).

In response to these challenges, this study offers several recommendations. From the perspective of graduate students themselves, they can embark on academic self-rescue by reading classic literature, actively participating in academic and social practices, engaging in oral and written expressions,

seeking like-minded individuals, and establishing networks for communication. From the viewpoint of mentors and the academic communities they foster, there is an opportunity to enhance the sense of belonging and identity among academic master's students by clearly defining the purpose of education and cultivating a sense of belonging within the academic community. Lastly, in terms of improving the training methods within higher education institutions, it is essential to conduct comprehensive research to identify the most pressing needs of different student groups and address these needs promptly and adequately. This may involve creating an academic atmosphere, establishing avenues for academic collaboration and exchange, offering tailored courses, implementing classroom teaching reforms, and strengthening external collaborations to provide ample opportunities for academic and social practices.

### Acknowledgements

Throughout the writing of this dissertation I have received a great deal of support and assistance. I would particularly like to acknowledge my team members for their wonderful collaboration and patient support.

### References

- Blumer, H. G. (1986). *Symbolic interactionism: Perspective and method*. Berkeley, Los Angeles, and London: University of California Press.
- Chen, X. M. (2000). *Qualitative research methods and social science research*. Beijing: Education Science Press.
- Cui, L. N. (2016). *Research on research ability of pedagogy academic master students* (Doctoral dissertation). Harbin Normal University.
- Feng, X. T. (2009). *Research methods of sociology*. Beijing: China Renmin University Press.
- Fu, J. J. (2007). *On the adjustment of training goals for postgraduates in China* (Doctoral dissertation). Huazhong University of Science and Technology.
- Jiang, L. B., Zhu, W. X., & Fu, C. R. (2021). Study on the Component-structure and Development Mechanism of Academic Literacy of Academic Postgraduate Students. *Heilongjiang Researches on Higher Education*, 39(03), 98-102.
- Jin, Y. S. (2014). *Research on academic dilemma of master students* (Doctoral dissertation). Nanjing Normal University.
- Li, R. Z. (2016). The loss and acquisition of postgraduate academic ability: A case study of master's degree thesis in education. *Academic Degrees & Graduate Education*, 33(7), 30-34.
- Lin, Z., Chen, Y. Q., & Cai, Y. (2020). Academic ability training of postgraduates based on multi-dimensional discussion platform: A case study of academic master students majoring in Japanese. *Journal of Japanese Language Study and Research*, 42(6), 85-93.

- Liu, C. G. (2019). Core requirements, objectives, tasks and realization path of “Three full Education” in universities. *Ideological & Theoretical Education*, 35(11), 92-95, 111.
- Liu, X. X. (2019). *Research on academic ability development of master students of education* (Doctoral dissertation). Henan Normal University.
- Luo, J. G., Xie, Z. W., & Mo, L. R. (2021). Mentees’ communication patterns and graduate students’ academic ability development: A qualitative analysis based on grounded theory. *Academic Degrees & Graduate Education*, 38(3), 15-20.
- Ma, Y., Hu, H. L., Han, S. Z., & Chen, X. (2019). An analysis of influencing factors on graduate students’ research innovation ability: An empirical study based on SEM. *Modern Education Management*, 39(9), 108-112.
- Mead, G. H. (1962). *Mind, self and society: From the standpoint of a social behaviorist*. Chicago: The University of Chicago Press.
- Nima, B., Li, S. L., & Liu, C. (2014). The upgrading course of human life wisdom is origin of disciplinary development of pedagogy. *Educational Research*, 35(6), 20-24.
- Ni, J. A., & Zhang, M. Y. (2002). On non-academic ability and its cultivation of college students and postgraduates. *Journal of Jiangnan University (Humanities and Social Sciences)*, 3(3), 85-88.
- Qiu, G. J., & Mo, J. L. (2009). The cultivation of academic ability of master of education postgraduates from the perspective of thesis proposal defense. *China Higher Education Research*, 25(12), 44-46.
- Wang, H. (2009). *A study on the influence of academic activities on the scientific research ability of master students* (Doctoral dissertation). East China Normal University.
- Wang, X. F. (1985). Analysis on the structure of postgraduate ability. *Academic Degrees & Graduate Education*, 2(1), 79-84.
- Wang, Y. (2014). *Research on the development status of academic postgraduate students’ scientific research ability* (Doctoral dissertation). Xiamen University.
- Wei, X. F. (2015). *Research on the relationship between academic career orientation and learning engagement of postgraduate students* (Doctoral dissertation). Southwest University.
- Xiao, C., & Hu, L. L. (2006). On cultivating the academic ability of graduate students. *Academic Degrees & Graduate Education*, 23(9), 1-5.
- Xie, Z. J., & Li, X. Y. (2017). The research level of postgraduate students and its impact on employment: Based on an empirical survey of 8 universities. *Fudan Education Forum*, 15(1), 62-69.
- Yang, G., Ma, R., Zhang, J. S., & Gong, L. Y. (2012). A study on the relationship between information behavior and scientific research innovation ability of postgraduates: A case study of Jilin University. *Library and Information Service*, 56(24), 77-82.

- Yuan, B. T., & Yan, J. L. (2009). An analysis of the current situation and influencing factors of graduate students' innovation ability in China: Based on the results of three graduate education quality surveys. *Peking University Education Review*, 7(2), 12-20, 188.
- Zhang, Y. Z., & Li, Y. (2014). Reflections on Developing Research Abilities of Graduate Students of Liberal Arts from the Perspective of Academic Activities. *Journal of Graduate Education*, (06), 42-46.
- Zhu, Z. Y., & Cui, X. J. (2012). Graduate academic competence: A theoretical framework based on policy text analysis. *Tsinghua Journal of Education*, 33(6), 92-99.