



Postgraduate Training Needs Among Pedagogical Students at Hanoi Metropolitan University: Current Situation and Solutions

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ABSTRACT

In the contemporary job market, individuals face demanding requirements that necessitate acquiring skills and deepening specialized knowledge. This is particularly evident in the education sector, where teachers are expected to possess advanced qualifications. Therefore, it becomes crucial to understand the current aspirations and needs of pedagogical students regarding postgraduate training. This research aims to examine the optimal timing and approaches for pursuing higher education and explore the specialization areas that are believed to effectively meet the job demands in mainstream schools. By addressing these pivotal research inquiries, this study aims to provide valuable insights for the development of postgraduate training programs tailored to the specific needs of pedagogical students and the demands of the education sector. Based on a survey of 283 final-year pedagogical students at Hanoi Metropolitan University and utilizing the SPSS 16 software for analysis, the research team has identified the causes of postgraduate aspirations, the level of demand, and the desired areas of specialization for postgraduate training. Additionally, they have evaluated the factors influencing the learning needs of the target group, which comprises final-year pedagogical students. The research results on the current situation serve as a foundation for investigating strategies to improve the quality of postgraduate education, provide guidance for postgraduate recruitment, and suggest the introduction of new educational programs in the field of education at Hanoi Metropolitan University, as well as other teacher training institutions.

1. INTRODUCTION

Given the circumstances of the knowledge-based economy, the fourth industrial revolution, globalization, and international integration, education has shifted its focus from knowledge to competency. This transformation is driven by changes in societal needs, learner characteristics, educational settings, and the overall requirements placed on higher education institutions and teacher training establishments. As a result, there is a need to reform objectives, curricula, content, teaching methodologies, and assessment methods (National Assembly, 2018). Failure to adapt to these changes not only hampers the competence of teaching staff to fulfill their duties but also exposes them to the risk of falling behind and potential unemployment. Enhancing education quality has become an essential and urgent task for the education and training sector, attracting significant attention from society (Government, 2020). Both theory and practice have demonstrated the crucial significance of teaching staff and educational management personnel in improving education quality. They play a vital role in achieving the goal of raising intellectual standards, nurturing human resources, and fostering talent (Communist Party of Vietnam, 2013). Providing postgraduate

training and professional development, particularly at the master's level, to teachers in preschools, primary schools, and lower and higher secondary schools is one of the essential solutions to enhance the quality of the teaching staff.

Given the demanding nature of the job market, particularly in the field of education, it is crucial to acquire skills and expand specialized knowledge through postgraduate education. Therefore, it is essential to understand the aspirations and requirements of aspiring educators for advanced training. The research study aims to determine the optimal timing and approaches for pursuing postgraduate education and explore specialized areas of focus that align with current employment requirements in mainstream schools. Through a survey conducted among final-year pedagogical students at Hanoi Metropolitan University, the research team has identified the motivations behind pursuing postgraduate education, assessed the level of demand, and identified preferred areas of specialization for further training. Additionally, the team has examined the various factors that influence the learning needs of this specific group of final-year pedagogical students. The input from final-year students is of great significance in this study as they were about to graduate and had a strong interest in pursuing further education to enhance their qualifications. The research findings regarding the current situation provide a foundation for exploring strategies to improve the quality of postgraduate education, offer guidance for postgraduate admissions, and propose the development of new educational programs in the field of education at Hanoi Metropolitan University and other teacher training institutions.

2. LITERATURE REVIEW

In the era of global integration, the prioritization of teacher development remains a consistent and paramount concern for all nations. This emphasis on educators arises from their pivotal role in shaping education quality. Teachers serve as a critical human resource, possessing the competence to implement diverse educational plans, particularly in the 21st century, which is characterized by information technology and a knowledge-based economy. Simultaneously, elevating the caliber of the teaching workforce is considered a significant milestone and the central focus of comprehensive reform and innovation initiatives in the field of education. Teachers are seen as a fundamental cornerstone of these endeavors. This recognition stems from the fact that without competent and ethically upright educators, the achievement of high-quality education becomes unattainable. Therefore, it is imperative to fulfill the requirements of the educational innovation process within teacher training systems, attract talented individuals to the teaching profession, foster an environment conducive to the creative development of both teachers and students during the learning process, and establish a work environment with appropriate welfare policies that incentivize the growth of the teaching staff. Additionally, the continuous enhancement of educational quality at teacher training institutions, both at the undergraduate and postgraduate levels, in alignment with professional standards, is indispensable for strengthening the competence of the teaching workforce in the contemporary era (Nguyen, 2019).

A study by Jepsen and Neumann (2010) investigates the factors influencing undergraduate students' decisions to pursue graduate education. The study involved 122 third-year students from a research-intensive university's Behavior in Organizations unit, who underwent two assessments over two years. The findings showed no significant changes in their intentions to pursue postgraduate study, even despite a faculty-implemented intentional encouragement intervention. The intervention had no effect on their decision to pursue a postgraduate degree or the specific master's program they intended to enroll in. The study underscores the need for further research and understanding of this relatively unexplored area, as well as the need to explore other variables that might influence undergraduate students' choices of graduate school.

To investigate the factors influencing Mainland Chinese students' decisions to pursue Master of Education degrees in Hong Kong and their intentions to return home, Cheung et al. (2019) conducted a study. The researchers employed a mixed-method approach to explore the factors influencing Mainland Chinese students who were pursuing MEd degrees in Hong Kong. In addition to using a questionnaire, they conducted in-depth interviews. The study participants were recruited using a purposeful and convenience sampling strategy, leveraging the personal connections of the research team. The findings revealed that Hong Kong was a highly sought-after study destination for this specific group of Chinese MEd students. Importantly, the results indicated that academic factors held greater importance compared to social, cultural, and economic factors in their choice of study destination. In contrast to previous studies, the participants expressed a stronger inclination to return to their home country after completing their studies.

Sysoeva (2020) examines how contemporary pedagogical education places emphasis on training professional teachers who can unleash their creative and personal potential. The author utilizes various techniques including systematization and synthesis of facts and principles, pedagogical observation, analysis and synthesis of scientific information on the topic, and research conducted by field experts. The study also highlights key prerequisites for graduate students aspiring to become teachers, including the development of professional self-awareness, tolerance for frustration, communicative competence, and the acquisition of both personal and professional competencies. The author shares the experience of implementing a practical training system designed to assist graduate students and future teachers in enhancing their professional pedagogical thinking, social-perceptual skills, and communication abilities. The study underscores the significance of professional training in psychological and pedagogical education, with a focus on values and meaning orientation. Various training formats and approaches are suggested, such as art-therapeutic workshops, pedagogical studios, communication training, conflict resolution techniques, analysis of works, and the mastery of partnership interaction techniques, all aimed at fostering professional and personal growth. The study encourages postgraduate students to engage in continuous experimentation, explore their potential, and actively participate in guided personal and professional development.

The 2019 Education Law integrates the 2012 Higher Education Law and its 2018 updates, with a particular focus on university programs, curriculum, institutions, and degrees. One notable aspect is the increased government oversight in postgraduate education, which includes amendments to regulations for Master's and Doctoral Training. Article 72, Section 1 of the law mandates specific qualifications for teacher training, requiring primary, secondary, and high school teachers to hold a bachelor's degree in education or a related field (National Assembly, 2019). However, the requirement for a master's degree or higher is applicable only to first-tier high school educators who hold the highest professional teaching designation (Ministry of Education and Training, 2021). As a result, there is an increased demand for postgraduate teacher education, particularly among high school instructors, to meet both the professional title prerequisites and the demands of professional growth. During the 2021-2022 academic year, there was a collective deficit of 7,134 educators compared to the stipulated criteria set by the Ministry of Education and Training. In the following academic year of 2022-2023, due to the establishment of new educational institutions, an increase in class numbers, and student enrollment, the deficit decreased to 3,131 instructors. Consequently, Hanoi currently faces a shortage of 10,265 permanent teaching positions, including 3,436 primary school educators, 3,135 secondary school educators, and 1,311 high school educators. In accordance with Prime Ministerial Directive No. 03/CT-TTg, the Ministry of Education and Training, through Official Letter No. 2199/BGDĐT-GDĐH, guides educational institutions to enhance their administrative capacity and promote postgraduate education standards. Circular No. 17/2021/TT-BGDĐT modernizes postgraduate education regulations to align with societal and labor market needs, with a focus on practical skills development. Proficiency in foreign languages is now considered crucial, as it enables access to global knowledge. Therefore, providing supplementary training for high-quality teachers in Hanoi is essential in today's educational landscape.

3. MATERIALS AND METHODS

The research instrument for this study involves the use of a Google-based questionnaire as a survey method. The process will consist of the following steps: constructing the questionnaire, seeking expert opinions on its content, revising and finalizing the questionnaire, distributing survey forms to participants, and collecting the data.

The objective of this survey is to assess the postgraduate training needs of students at Faculty of Education - Hanoi Metropolitan University. Subsequently, through the survey, the research team can collect data, analyze the findings, identify strengths and limitations, and provide recommendations to the university regarding how to attract students to postgraduate training programs.

The questionnaire covers the following areas: (1) The postgraduate training needs of students at Faculty of Education - Hanoi Metropolitan University; (2) The fields of specialization that students intend to pursue after completing their undergraduate degree; (3) The primary reasons why students are interested in pursuing further education after completing their undergraduate studies; (4) The challenges encountered by students when considering postgraduate training.

The survey involved 283 final-year pedagogical students at Hanoi Metropolitan University.

Table 1. The participants' background information

Majors	Number of participants
Early childhood education	43
Primary education	136
Secondary education	104
Total	283

The quantitative results obtained from the study on the postgraduate training needs of pedagogical students at Hanoi Metropolitan University were then analyzed using mathematical statistical methods. The collected data was processed using the SPSS 16 software. Based on the analysis, scientific conclusions were drawn regarding the current state of postgraduate training needs.

Criteria and scales were designed for each question specifically, taking into consideration the relevant aspects and factors being measured. The design of the criteria was carefully monitored so that they aligned with the specific objectives and requirements of the study. The distance values of the scale were determined based on the nature of the variables being assessed. This approach ensures that the criteria and scale accurately measure the intended factors (refer to Table 2).

Table 2. Value of measurement scale distance

5-point Likert scale				4-point Likert scale	
Scales		Meanings		Scales	Meanings
1.00 - 1.80	Extremely low	Extremely challenging	Not essential	1.00 - 1.75	Not required
1.81 - 2.60	Low	Challenging	Somewhat essential	1.76 - 2.50	Contemplated
2.61 - 3.40	Moderate	Somewhat challenging	Neutral	2.51 - 3.25	Anticipated
3.41 - 4.20	High	Moderate	Essential	3.26 - 4.00	Urgent
4.21 - 5.00	Extremely high	Not challenging	Highly essential		

To assess the reliability of the questionnaire on postgraduate training needs among students at Hanoi Metropolitan University, the researchers utilized the Analyze/Scale/Reliability Analysis feature in SPSS software version 16. This allowed us to calculate the Cronbach's Alpha coefficient, which is a measure of scale reliability. The obtained Cronbach's Alpha value was 0.749, surpassing the threshold of 0.6. As shown in Table 2, this result indicates that the scale is considered reliable. Additionally, the inter-item correlation coefficients among the observed variables within the scale were above 0.4. Furthermore, when individual items were removed, the Cronbach's Alpha coefficients were lower than the overall Cronbach's Alpha coefficient. Consequently, no variables were excluded from the analysis. Therefore, all observed variables were deemed acceptable and included in the subsequent factor analysis.

Table 3. Case Processing Summary and Reliability Statistics

		N	%		
Cases	Valid	271	95.8	Cronbach's Alpha	N of Items
	Excluded	12	4.2		
	Total	283	100.0		
				0.749	12

4. RESULTS AND DISCUSSION

4.1. Forecasted demand for recruiting teachers with a master's degree in Hanoi

According to official document number 885/SNV-CCVC, which pertains to the implementation of Decree 116/2020/ND-CP, a comprehensive review and compilation of the demand for training pedagogical students has been conducted. In 2022, the identified demand figure stood at 4,823 positions. Furthermore, a breakdown of the projected figures for the upcoming years has been outlined as follows: 2,883 positions in 2023, 3,173 positions in 2024, and 2,742 positions in 2025. As a result, the cumulative demand for training pedagogical students across various fields, including Early Childhood Education, Primary Education, and Secondary Education, from 2023 to 2025 totals 6,822 positions (Hanoi Department of Home Affairs, 2022).

The recruitment of teachers in schools within Hanoi City is of great significance. According to Article 72, Section 1 of the Education Law 2019, preschool teachers are required to hold a college degree, while primary, lower, and higher secondary school teachers must have a university degree (National Assembly, 2019). As a result, the objective to improve and upgrade teacher qualifications may potentially increase the demand for postgraduate education among pedagogical graduates after completing their undergraduate studies. Table 4 presents the comprehensive forecast results obtained from students regarding the demand for recruiting teachers with a master's degree in Hanoi City:

Table 4. Forecasted demand for recruiting teachers with a Master's degree in Hanoi City

Students	N	Mean	Std. Deviation
Early childhood education	43	3.23	1.065
Primary education	136	3.40	0.772
Secondary education	104	3.91	0.904
Total	283	3.56	.910
Sig		0.000	

Based on the results presented in Table 4, which are derived from students' perceptions, it is evident that there is a substantial overall demand for teachers with a master's degree. The mean value of 3.56, falling within the "High" category, indicates a strong desire for teachers with advanced qualifications. Furthermore, the study reveals variations in the mean values of the forecasted demand across different educational levels. Specifically, Early Childhood education has a mean value of 3.23, Primary education has a mean value of 3.40, and Secondary education has the highest mean value of 3.91. This indicates that the demand for teachers with a master's degree is highest in the Secondary education sector, while the lowest demand is observed in Early Childhood education. To further validate these findings, an ANOVA test was conducted, which showed a significant difference ($\text{Sig } F = 0.00 < 0.05$) in the average predictions of demand among the different educational levels. This suggests that the projected demand for teachers with a master's degree varies significantly across educational levels. The research findings highlight the strong overall demand for teachers with a master's degree. The variations in forecasted demand among educational levels underscore the specific needs and priorities within each sector. These findings provide valuable insights for educational institutions and policymakers in addressing the demand for qualified teachers and ensuring that resources are appropriately allocated to meet the needs of different educational levels (Early et al., 2007; Evans, 2017; Murnane, 1988).

In addition to the descriptive statistics, we present a line graph that illustrates the correlation between the average projected demand for hiring teachers and different educational levels. The line is plotted using the

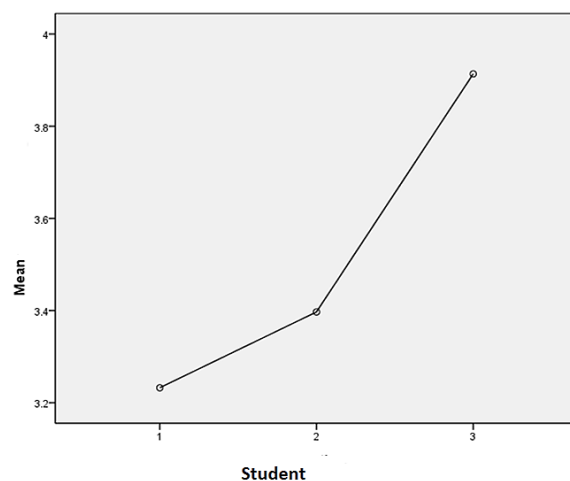


Figure 1. Forecasted demand for recruiting teachers with a Master's degree in Hanoi City

Mean values obtained from the Descriptives table, and it shows an upward trend from Early Childhood to Primary and Secondary levels. This implies that, according to student feedback, there is a higher demand for recruiting teachers with a master's degree in Secondary education compared to the other two categories. Primary education closely follows, while Early Childhood education demonstrates the lowest demand.

4.2. Postgraduate training demand of students at Hanoi Metropolitan University

A survey was conducted among 283 students to evaluate their demand for postgraduate training. The participants were asked the question, "What is your postgraduate training demand?" and were provided with four response options: Not required, Contemplated, Anticipated, and Urgent. The results of the survey are presented in Table 5:

Table 5. Postgraduate training demand of pedagogical students at Hanoi Metropolitan University

Students	N	Mean	Std. Deviation
Early childhood education	43	2.74	0.759
Primary education	136	2.86	0.732
Secondary education	104	3.11	0.749
Total	283	2.93	0.753
Sig		0.008	

The obtained results provide intriguing new information about the demand for postgraduate training among students at various educational levels. For the Early Childhood, Primary, and Secondary levels, the average demand ratings for postgraduate training were 2.74, 2.86, and 3.11, respectively. These average ratings, which all fall into the level 3 category, show a demand that is future-focused. Notably, the secondary school students exhibited the highest level of demand for postgraduate training. Furthermore, a Sig value of 0.08 is obtained from the analysis of variance (ANOVA) test, which is greater than the predefined significance level of 0.05. This implies that there is statistical insignificance to the observed variations in the mean values. Put differently, there is not any statistically significant difference in students' demand for postgraduate training at different educational levels. It is noteworthy, nevertheless, that the majority of students indicated a future demand for postgraduate training upon graduation, even in the absence of statistical significance. This emphasizes how crucial it is to take students' goals and desires for more education into account when creating postgraduate training programs.

Furthermore, the research also conducted an inquiry into the disciplines that students plan to pursue for their master's degree at various educational levels. The outcomes are explicitly presented in Tables 6, 7, 8, and 9:

Table 6. Intended Master's degree specializations among Early childhood education students

	Frequency	Percent	Valid Percent	Cumulative Percent
	1	25	58.1	58.1
	4	12	27.9	86.0
Valid	5	4	9.3	95.3
	6	2	4.7	100.0
Total	43	100.0	100.0	

(Note: 1- Master's degree in Education (Early childhood education); 4- Master's degree in Educational management; 5- Master's degree in Special education; 6 - Master's degree in Psychology)

The results collected from the 43 students majoring in early childhood education provide intriguing new perspectives on what kind of postgraduate training they would prefer. 58.1% of the students who took part in the program stated that they intended to pursue a master's degree in Early Childhood Education. This suggests that the majority of students in this field who were in their final year were very interested in continuing their education in the field of early childhood education. Furthermore, 27.9% of the students indicated that they would prefer to pursue a Master's in Educational Management, indicating that a sizable percentage of Early Childhood Education majors were considering careers in leadership or administration in the educational field. Just 9.3% of students said they would be

interested in pursuing a master's degree in special education. This shows that a certain percentage of students were focused on meeting the needs of students who require special education. In addition, 4.7% of the students indicated that they would like to pursue a Master's in Psychology, suggesting a slight interest in studying the relationship between psychology and education in the field of early childhood education. Overall, the findings show that over 50% of the final-year students majoring in Early Childhood Education were inclined to pursue a master's degree in Early Childhood Education. This highlights the value of specific knowledge and experience in Early Childhood Education and implies a strong preference for advanced studies in their chosen field.

Table 7. Intended Master's degree specializations among Primary education students

	Frequency	Percent	Valid Percent	Cumulative Percent
	2	80	58.8	58.8
	4	49	36.0	94.9
Valid	5	1	0.7	95.6
	6	6	4.4	100.0
Total	136	100.0	100.0	

(Note: 2- Master's degree in Education (Primary Education); 4- Master's degree in Educational management; 5- Master's degree in Special education; 6 - Master's degree in Psychology)

The survey results shown in Table 7 shed important light on final-year primary education students' preferences for postgraduate study. According to the findings, a sizable majority of the students (58.8%) stated that they intended to pursue a master's degree in education with a primary education concentration. This shows that final-year students are very interested in pursuing a career in primary education. Furthermore, 36.0% of the students expressed a preference for pursuing a Master's degree in Educational Management. This indicates a significant proportion of students who are enthusiastic about acquiring knowledge and experience in educational leadership and administration within the field of primary education. In contrast, only 0.7% of students indicated an interest in pursuing a Master's degree in Special Education. This suggests a relatively low preference for specializing in meeting the needs of students with special educational requirements within the primary education field. Additionally, 4.4% of the students stated their intention to pursue a Master's degree in Psychology. This indicates a small percentage of primary education students who are curious to explore the intersection of psychology and education in their academic and professional pursuits. Overall, the findings highlight that over 50% of the final-year students majoring in Primary Education have a strong preference for pursuing a Master's degree in Education with a concentration in Primary Education. This underscores the significance of specialized knowledge and experience in this particular field and the desire of future educators to enhance their understanding and proficiency in primary education.

Table 8. Intended Master's degree specializations among Secondary education students

	Frequency	Percent	Valid Percent	Cumulative Percent
	3	80	76.9	76.9
	4	12	11.5	88.5
Valid	7	1	1.0	89.4
	8	11	10.6	100.0
Total	104	100.0	100.0	

(Note: 3- Master's degree in Education with a specialization in Mathematics/Literature/History/Physics/Civic education/Physical education; 4- Master's degree in Educational management; 7- Master's degree in Testing and Evaluation in education; 8- Master's degree in Pedagogical theory and teaching methods with a specialization in Mathematics/Literature/History/Physics/Civic education/Physical education)

The findings among the 104 final-year students in the Secondary Education field are presented in Table 8. The results indicate that a significant majority, specifically 76.9% of the students, expressed their desire to pursue a Master's degree in Education with a focus on subjects such as Mathematics, Literature, History, Physics, Civic Education, or Physical Education. This indicates a strong inclination among the final-year students in the Secondary Education field to further develop their expertise in these specific areas. Furthermore, 11.5% of the students chose to pursue a Master's degree in Educational Management, indicating a notable proportion of students interested in acquiring knowledge and skills related to educational leadership and administration within the Secondary Education sector. In contrast, only 1.0% of the students indicated a preference for a Master's degree in Testing and Evaluation in Education, suggesting a relatively low level of interest among students in this particular specialization. Additionally, 10.6% of the students selected a Master's degree in Pedagogical Theory and Teaching Methods, with a focus on subjects such as Mathematics, Literature, History, Physics, Civic Education, or Physical Education. This highlights a moderate percentage of students who were keen on deepening their understanding of teaching methodologies within these subject areas. Overall, the findings demonstrate that more than half of the final-year students in the Secondary Education field have a strong inclination towards pursuing a Master's degree in Education with a specialization in Mathematics, Literature, History, Physics, Civic Education, or Physical Education. This indicates the importance of acquiring subject-specific knowledge and expertise within the Secondary Education field.

These results indicate that final-year pedagogical students tend to prioritize master's degree specializations that align closely with their professional expertise. For example, the students in the Early Childhood Education field prioritized a Master's degree in Early Childhood Education, while the students in the Primary Education field prioritized a Master's degree in Primary Education. Similarly, the students in the Secondary Education field preferred a Master's degree in Education with a specialization in subjects such as Mathematics, Literature, History, Physics, Civic Education, or Physical Education. Educational Management also emerged as a preferred choice across all education levels. However, the survey results also reveal an unexpected finding: the students in the Secondary Education level showed relatively less interest in pursuing a Master's degree in Pedagogical Theory and Teaching Methods with a specialization in subjects such as Mathematics, Literature, History, Physics, Civic Education, or Physical Education. This suggests that the guidance and counseling efforts of the faculty regarding pedagogical theory and teaching methods may require further attention and improvement. These findings offer valuable insights for educational institutions and faculty members, enabling them to better understand the aspirations and preferences of students in the Secondary Education field. By addressing these preferences and refining guidance and counseling practices, institutions can enhance the educational experiences and career pathways of future educators in the Secondary Education sector.

4.3. Reasons for postgraduate training among students

To gain a comprehensive understanding of the motivations and importance of pursuing postgraduate education among pedagogical students at Hanoi Metropolitan University, the researchers conducted a survey that included the following questions: "Do you believe it is essential to pursue further education to meet future job demands?" and "What are your reasons for wanting to continue your education after completing your undergraduate studies?" The survey results are outlined in Table 9 and Table 10.

Table 9. Postgraduate education necessity among pedagogical students

Students		YC1	YC2	YC3	YC4
Early childhood education	Mean	4.28	4.23	4.21	4.16
	N	43	43	43	43
	Std. Deviation	0.630	0.718	0.675	0.652
Primary education	Mean	4.41	4.22	4.35	4.29
	N	136	136	136	136
	Std. Deviation	0.694	0.767	0.705	0.721

Secondary education	Mean	4.38	4.12	4.25	4.20
	N	104	104	104	104
	Std. Deviation	0.766	0.828	0.747	0.742
Total	Mean	4.38	4.18	4.29	4.24
	N	283	283	283	283
	Std. Deviation	0.711	0.782	0.716	0.719

(Note: YC1- Enhancing professional competence training; YC2- Enhancing foreign language proficiency training; YC 3- Enhancing computer literacy training; YC4- Management skills training)

The survey results indicate a strong consensus among the pedagogical students regarding the significance of pursuing postgraduate education. The average ratings, which vary from 4.18 to 4.38 on a 5-point scale, reflect a high level of importance attributed to postgraduate studies. Specifically, the students acknowledged the value of postgraduate education in enhancing their subject expertise, improving language proficiency, honing computer skills, and acquiring management competencies. These aspects received average ratings of 4.38, 4.18, 4.29, and 4.24, respectively. Moreover, the students from different educational levels, including Early Childhood Education, Primary Education, and Secondary Education, shared the belief that postgraduate education is crucial for developing subject expertise, improving language proficiency, enhancing computer skills, and acquiring management competencies. The mean values for these areas range from 4.16 to 4.41. These findings demonstrate the widespread recognition among those pedagogical students of the numerous benefits and advantages associated with postgraduate education. The consistently high ratings across various aspects indicate that the students perceived postgraduate studies as indispensable for their professional growth and development. The acknowledgment of the importance of subject expertise, language proficiency, computer skills, and management competencies underscores the students' dedication to enhancing their knowledge and skills in these domains.

Table 10. Motivations for pursuing postgraduate education

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	95	33.6	33.6
	2	15	5.3	38.9
	3	173	61.1	100.0
Total	283	100.0	100.0	

(Note: 1- Career advancement opportunities; 2- Job change; 3- Meeting job requirements and professional development)

The survey results reveal that 61.1% of the surveyed Hanoi Metropolitan University pedagogical students were driven to pursue postgraduate education to meet job requirements and professional development. Career advancement opportunities were the second most significant reason, accounting for 33.6% of the responses. The proportion of students citing job change as a motive is smaller at 5.3%. The majority of the students recognized the importance of meeting job requirements and achieving professional development as the main catalysts for pursuing postgraduate education. This aligns with the evolving demands of the job market, where advanced qualifications and specialized expertise are increasingly sought after. Pursuing postgraduate education allows students to enhance their professional competence, broaden their horizons, and maintain competitiveness in the field of education. Career advancement opportunities reflect aspirations for upward mobility and secure higher-level positions within the education sector. Some students viewed postgraduate education as a pathway to transitioning into different roles or sectors within the field of education or exploring new professional opportunities (Artess & Hooley, 2017; Archer, 2021).

4.4. Challenges encountered by pedagogical students in pursuing postgraduate education

Table 11. Challenges encountered by pedagogical students in pursuing postgraduate education

		N	Mean	Std. Deviation	Sig (anova)
Study expenses	1	43	3.33	0.865	0.312
	2	136	3.12	0.844	
	3	104	3.20	0.702	
	Total	283	3.18	0.799	
Study duration	1	43	3.16	0.754	0.639
	2	136	3.29	0.853	
	3	104	3.27	0.727	
	Total	283	3.27	0.793	
Application and admission procedures	1	43	3.05	0.615	0.817
	2	136	3.13	0.745	
	3	104	3.10	0.718	
	Total	283	3.10	0.715	
Foreign language proficiency prerequisites	1	43	3.30	0.741	0.008
	2	136	3.07	0.840	
	3	104	3.40	0.842	
	Total	283	3.23	0.838	
Study location	1	43	3.16	0.754	0.736
	2	136	3.13	0.755	
	3	104	3.07	0.728	
	Total	283	3.11	0.743	

(Note: 1- Early childhood education students; 2- Primary education students; 3- Secondary education students)

The table shows that the examined pedagogical students anticipated various challenges when pursuing postgraduate education, including study expenses, study duration, application documents and admission procedures, foreign language proficiency prerequisites, and study location. The mean values range from 3.10 to 3.27, indicating moderate difficulty. Study duration was claimed to be the most challenging factor, with the students finding the extended duration of postgraduate programs a significant hurdle. Foreign language proficiency prerequisites were also considered a significant difficulty, suggesting the students may struggle with meeting language requirements. Study expenses and study location were moderately challenging, indicating financial constraints and the location of educational institutions may pose obstacles. Application and admission procedures are the least challenging aspect, although still posing a moderate level of difficulty. The ANOVA analysis reveals a significant difference in difficulty related to foreign language proficiency among students majoring in Early childhood education, Primary education, and Secondary education. The primary education students perceived more difficulty in terms of foreign language proficiency compared to their peers in early childhood and secondary education majors.

4.5. Solutions to addressing the postgraduate education needs of pedagogical students

Drawing from the survey findings, the researchers would propose several solutions to addressing the challenges and promoting active participation of pedagogical students in planning and pursuing postgraduate education. The specific solutions are as follows:

Firstly, based on the survey results, it is recommended that the university takes proactive measures to inform students about the conditions, procedures, and support policies related to postgraduate admissions. The survey

findings indicate a significant lack of information among the majority of the students regarding the university's postgraduate admission process, along with concerns about meeting the admission criteria. Therefore, the university should consider the following measures:

- Standardizing the application submission process to ensure consistency and clarity.
- Communicating information in a timely and comprehensive manner to facilitate easy access for prospective students and enable them to adequately prepare the required documentation.
- Providing support for candidates who are pending for eligibility or are close to meeting the application deadline but have not yet fulfilled the admission requirements.

Secondly, it is crucial to establish the credibility and academic integrity of the postgraduate degrees awarded by the university and transparently disclose the locations where postgraduate education is offered. Implementing this solution will allow candidates to make informed decisions when choosing Hanoi Metropolitan University, considering the advantage of its conveniently situated locations within the urban area of Hanoi. By implementing these proposed solutions, the university can address the challenges identified in the survey and create a supportive environment that encourages pedagogical students to actively engage in postgraduate education planning and pursuit.

Thirdly, it is crucial to provide detailed notifications regarding tuition fees and the availability of fee waivers for students facing financial difficulties. The survey results indicate that financial concerns play a significant role in candidates' decision-making process compared to other educational institutions and programs. By offering transparent information about tuition fees and implementing policies to support students from disadvantaged backgrounds, Hanoi Metropolitan University will have a competitive advantage in attracting postgraduate students.

Fourth, offer assistance to candidates in preparing for postgraduate entrance examinations, with a specific focus on meeting language proficiency requirements. For final-year students of teacher training programs at Hanoi Metropolitan University, aligning the university's undergraduate language proficiency standards with the postgraduate entrance requirements would enable them to pursue dual achievement objectives. Additionally, the university should establish a support system to facilitate other candidates in exam preparation and acquiring the necessary certifications.

Fifth, organize study schedules in a logical manner. Based on the survey results, the majority of postgraduate students are employed individuals, so the study schedule needs to be flexible. In the case of teachers pursuing postgraduate education, the university should explore the option of providing evening or weekend classes. Furthermore, leveraging the teachers' summer break, it is advisable to enhance summer training programs held during regular working hours.

The proposed solutions are arranged in descending order of the difficulties reported by the survey participants, which influence their decisions regarding enrollment in postgraduate programs at the university. Overall, the implementation of a comprehensive system of solutions is crucial to influence the decision-making process of students from the Faculty of Education at Hanoi Metropolitan University regarding their pursuit of postgraduate studies.

5. CONCLUSION

Based on the survey findings, which evaluated the postgraduate education needs of pedagogical students at Hanoi Metropolitan University, several conclusions can be drawn. Firstly, there is a higher demand for recruiting postgraduate students in the field of education, specifically at the secondary education level in Hanoi. This indicates a stronger inclination among pedagogical students specializing in secondary education to enhance their qualifications compared to those focusing on primary education and early childhood education. Moreover, the majority of students in the field of education prioritize pursuing education studies at various levels, highlighting the need to provide postgraduate programs that address their immediate needs upon completion of their undergraduate degrees. The importance of postgraduate education for pedagogical students is reinforced by a variety of requirements, such as the need to enhance subject-specific knowledge, improve computer literacy, develop management skills, and advance language proficiency. However, the students identified several challenges during their postgraduate education, including study duration, language proficiency prerequisites, financial limitations, study locations, and application procedures. Considering these findings, five solutions are proposed aiming at effectively addressing the postgraduate education needs of pedagogical students at Hanoi Metropolitan University.

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