

The Factors that Affect the Students' Academic Results in National Defense and Security Education Researched at Ho Chi Minh City University of Education in Vietnam

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ABSTRACT: This study examined the factors influencing students' academic performance in the compulsory subject of National Defense and Security Education (NDSE) at Ho Chi Minh City University of Education. Using a mixed-methods approach with a survey of 375 students and interviews with five lecturers, the research identified four key factors. The quantitative data revealed that teaching methods, student engagement, learning motivation/attitudes, and physical facilities all have a positive correlation with academic results. The most significant factors were found to be learning motivation/attitudes and student engagement. The qualitative findings from lecturers offered further insights into challenges and solutions. The study concludes by proposing recommendations to improve the effectiveness of NDSE and foster civic responsibility among the youth.

KEYWORDS: National Defense and Security Education, students, HCMUE, academic results, factor.

INTRODUCTION

National Defense and Security Education (NDSE) stands as a vital and foundational component of the national education system in Vietnam. It plays a crucial role in equipping students with essential military knowledge and skills, which are fundamental for a nation with a history of self-defense and a commitment to national sovereignty. Simultaneously, the subject is meticulously designed to foster core values such as patriotism, vigilance, and a robust civic consciousness among the younger generation (George, 2024; Wang, 2021). This educational initiative is not merely about military drills or theoretical concepts; it is a comprehensive effort to instill a sense of national pride and duty, ensuring that students understand their role in the ongoing development and protection of their homeland. The subject thus aims to cultivate a sense of responsibility and active participation in the country's security, preparing citizens to be mentally and physically ready to contribute to national defense.

In the contemporary context, NDSE offers a critical opportunity for students to develop a well-rounded character, aligning with the demands of national construction and defense. This is particularly pertinent amid the increasing trend of global integration and the rise of complex, non-traditional security challenges (Knox, Lugo, & Sütterlin, 2019; Qari, Börger, Lohse, & Meyerhoff, 2024). These challenges, such as cyber warfare, information security threats, climate change-related disasters, and geopolitical instability, require a citizenry that is not only knowledgeable but also resilient and prepared to respond effectively. NDSE provides the intellectual and practical framework for students to think critically about these issues and understand their personal and collective responsibilities. By integrating these new security threats into the curriculum, the subject moves beyond a mere graduation requirement to become a cornerstone of comprehensive education, preparing individuals to be adaptive, informed, and conscientious members of society. This forward-looking approach ensures that the education remains relevant and impactful in addressing the complexities of the 21st century.

At the university level, and particularly at Ho Chi Minh City University of Education (HCMUE), NDSE holds a position of significant importance. As an institution dedicated to training future educators, the university recognizes that teachers must possess a strong sense of national identity and a deep understanding of security issues to effectively guide the next generation. Therefore, NDSE is not only a compulsory subject for all students but also a foundational element in shaping their character and resilience. For future teachers, this subject is indispensable, as they are entrusted with the responsibility of instilling these same values in their own students. It is a critical component of their professional training, equipping them with the knowledge, moral compass, and practical skills necessary to become exemplary role models who can both educate and inspire a sense of national duty.

However, despite its recognized importance, the practical implementation of NDSE has faced its share of challenges. In practice, the academic results of this subject among certain student groups have remained limited, a concern that has been observed by both lecturers and students and potentially affecting broader educational objectives (Hai, 2021). This limitation not only impacts

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individual student performance but also highlights a clear gap between the intended outcomes of NDSE and the actual results, underscoring the need for a targeted and evidence-based approach to improvement. The reasons behind these limited results are multifaceted and require careful investigation, ranging from student perception and motivation to the effectiveness of teaching methodologies and the adequacy of the learning environment. This situation highlights a clear gap between the intended outcomes of NDSE and the actual results, underscoring the need for a targeted and evidence-based approach to improvement.

Therefore, conducting a comprehensive study to identify the key factors influencing NDSE academic results is both timely and essential (Almulla, 2024; Bau & Tuan, 2018). A scientific and systematic investigation will provide a reliable data foundation to propose effective and practical solutions, thereby enhancing the quality of teaching and learning. Such a study is not just an academic exercise; it is a critical step towards maximizing the subject's potential in educating the younger generation. By identifying the specific factors that contribute to or hinder student success, this research will empower HCMUE to implement targeted interventions, ultimately improving the overall training quality and ensuring that the subject fully achieves its profound objectives (Duong, 2019). This will, in turn, contribute to the development of a generation of graduates who are not only professionally competent but also deeply committed to the security and prosperity of their nation.

- This research aims to address the following research questions:

[1]. How do factors such as teaching methods, student engagement, learning motivation and attitudes, and physical facilities affect the NDSE academic results of students at Ho Chi Minh City University of Education?

[2]. What solutions are needed to improve NDSE academic results for students at the University?

Background to the study

Globally, numerous studies have identified various factors that influence student's academic results (Dong et al., 2024; Higashitsuji, Otsuka, & Watanabe, 2025; Y. Zhang, Lucas, Bem-haja, & Pedro, 2024). For instance, learner-related factors such as intrinsic motivation, learning strategies, and active engagement have been found to strongly correlate with academic achievement (Hamm & Yeh, 2024; Kobis, Kisiołek, Karyy, Pawliczek, & Chmielarz, 2024; Xu, Wang, & Xu, 2025). In addition, educational environment factors, including learner-centered teaching methods, lecturer-student interaction, Physical facilities quality, and the overall learning environment, also play a critical role (Pablo-Lerchundi et al., 2023; P. Zhang, Ma, Zhao, Ling, & Sun, 2024). These studies emphasize that creating a learning environment that promotes engagement, interaction, and personalization can significantly enhance academic results (Ofem et al., 2024).

In the Vietnamese context, several studies have examined the factors influencing student academic results in general and in specific subjects (Hang & Tham, 2025; Thu, Thi, Nhi, Chi, & My, 2024). With respect to NDSE, existing research has typically focused on the role of lecturers (ability for teaching and pedagogical approaches), students' perceptions and attitudes, learning conditions (training grounds, equipment), and curriculum design (Bau & Tuan, 2018; Tran, Nguyen, & Le, 2025; Viet & Phuong, 2017). However, these studies have mostly been conducted on a small scale, often concentrating on one or two isolated factors. There remains a lack of profound research employing a comprehensive mixed-methods approach to evaluate the full range of variables affecting NDSE academic results within the specific institutional context of HCMUE, particularly with regard to the understudied dimension of student "engagement".

Ho Chi Minh City University of Education is a key pedagogical university in Vietnam and the only university in the Southern region of Vietnam that trains teachers of National Defense and Security Education. HCMUE has been assigned by the Ministry of Education and Training to autonomously organize the teaching and learning of the National Defense and Security Education subject for its students. With high-quality entrance scores and a professional, creative learning environment, the academic results of students in National Defense and Security Education are generally high. However, there are still some students who achieve low academic results, and even their motivation for studying is not high; they view the subject as a minor one and only focus on their specialized major subjects. Therefore, analyzing the factors affecting the academic results of students in National Defense and Security Education at HCMUE is of practical significance.

Research Methodology

This research utilizes a mixed-methods research design, integrating both quantitative and qualitative approaches. The quantitative method was conducted through a structured questionnaire survey administered to a large sample of university students. This approach aimed to determine the magnitude and direction of the effects of various factors on academic results. The qualitative method was implemented via profound interviews with lecturers, providing nuanced and multidimensional insights into influencing factors and practical teaching and learning experiences in the NDSE. This methodological combination enhances both the reliability and generalizability of the research findings.

The proposed research model includes four independent variables and one dependent variable. This research model was proposed based on a comprehensive literature review and the research context at HCMUE. The independent variables are hypothesized to have both direct effects on the dependent variable and interrelationships among themselves. (Dependent Variable -

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DV): Academic results in the NDSE (AP). Independent Variables (IVs): H1. Teaching methods used by lecturers (TM), H2. Student engagement (SE), H3. Learning motivation and attitude (LMA), H4. Physical facilities and learning conditions (PFLC).

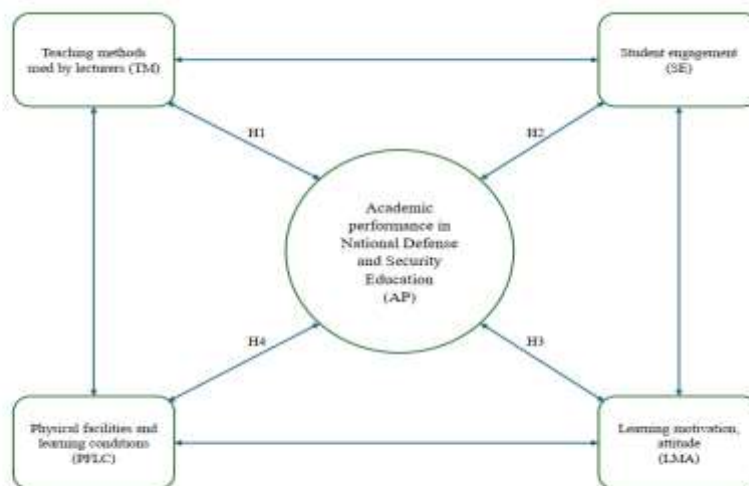


Figure 1. Research Model

Data Collection Tools

To collect quantitative data, the study employed both online and face-to-face survey questionnaires, which comprised two main sections: (1) student demographic information and items measuring perceived influencing factors. The influencing factors (TM, SE, LMA, PFLC) and as well as the academic results variable (AP), were assessed using a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). All questions were developed based on a review of relevant theories and were adapted to align with the specific context of the NDSE course at HCMUE. For qualitative data, the research utilized a semi-structured interview guide to explore lecturer' perspectives and experiences in greater depth, focusing on the perceived influence of the identified factors, challenges and advantages encountered during teaching and learning processes, and recommendations.

Participants

Table 1. Demographic Characteristics of the Surveyed Students

	Quantity	Rate (%)
Genders (N = 375)		
Male	168	44.8
Female	207	55.2
Academic year (N = 375)		
1st year	0	0
2nd year	5	1.3
3rd year	279	74.4
4th year	86	22.9
Another years	5	1.3
Department (N = 375)		
Sciences	79	21.1
Social Sciences	73	19.5
Languages	73	19.5
Specification	67	17.9
Education	83	22.1
Academic results (N = 375)		
Excellent	70	18.7
Very good	114	30.4
Good	158	42.1
Average	31	8.3
Fail	2	0.5

Source: Results of Survey Data Analysis Using SPSS

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Data Analysis Methods

Quantitative data collected from the survey questionnaires were coded and analyzed using SPSS (Statistical Package for the Social Sciences). The main analyses included:

Descriptive statistics: To characterize the survey sample and the distribution of research variables; Reliability testing of scales (Cronbach's Alpha), assessing the internal consistency of indicators within each scale; Exploratory Factor Analysis (EFA): to examine the factor structure of independent variables and evaluate the suitability of the data for factor analysis (KMO and Bartlett's Test); Correlation Analysis: to explore linear relationships between variables; Multiple Regression Analysis, to determine the extent and direction of the impact of each independent variable to the dependent variable (Academic results), while also controlling for the effects of other variables.

Qualitative data from lecturer interviews were transcribed and analyzed using thematic analysis to identify key themes, patterns, and perspectives. This qualitative analysis served to complement and enrich the quantitative findings.

FINDINGS

Overview of Learning Activities in National Defense and Security Education for Students at Ho Chi Minh City University of Education

Survey results from 375 students indicate that the majority of participants were female (55.2%) and concentrated in their third year (74.4%). Regarding academic results in NDSE, most students achieved a "Good" grade (42.1%), followed by "Very Good" (30.4%) and "Excellent" (18.7%). This demonstrates a significant proportion of students attained positive academic results in this subject, reflecting student effort and a certain level of effectiveness in the university's teaching activities. Learning activities in NDSE at HCMUE are characterized by the following aspects:

Subject position and importance: NDSE is a compulsory core subject for university students in Vietnam. It contributes to comprehensive education in patriotism, national pride, and essential military skills. The subject aims to equip students with fundamental knowledge of the Party's viewpoints and State policies, laws on national defense and security; building the people's national defense and public security; supplementing knowledge on civil defense and military skills; and preparing them to fulfill their military service to protect the Fatherland.

Curriculum and training duration: The NDSE curriculum is implemented according to Circular No. 05/2020/TT-BGDĐT issued by the Ministry of Education and Training. It comprises four main modules: The Vietnamese Communist Party's Guidelines on National Defense and Security; National Defense and Security Work; General Military Training; and Infantry Combat Techniques and Tactics. The total duration for the subject is 165 periods for undergraduate students.

Teaching and learning organization: Students study intensively in a concentrated residential format on campus, adhering fully to daily and weekly routines similar to a military environment. Beyond main classes, students can participate in specialized teams and extracurricular activities. The teaching methodologies aim to promote student proactivity and creativity, adopting a learner-centered approach.

Teaching quality and faculty: Ho Chi Minh City University of Education is one of the pivotal universities assigned the important task of training specialized NDSE teachers in Vietnam. The faculty teaching NDSE has been strengthened both quantitatively and qualitatively. They are formally trained, dedicated, experienced, and meet the requirements of their duties.

Existing challenges: Despite encouraging results, NDSE activities still face some limitations. These include delays in result reporting/statistics and certain inadequacies in management and teaching organization. Material facilities and Physical facilities remain insufficient and lack uniformity. Furthermore, a segment of students still perceives NDSE merely as a graduation requirement, negatively impacting their awareness and learning motivation.

In general, NDSE learning activities at HCMUE are systematically organized, with significant investment in curriculum and faculty, yielding positive outcomes for the majority of students. However, challenges persist concerning student awareness, motivation, and the optimization of material facilities to further enhance the subject's quality.

Descriptive Statistical Analysis of the Factors in the Research Model:

Table 2. the results of Descriptive Statistical Analysis

Code	Name of Independent Variable	Mean	Std. Deviation	Maximum	Minimum
TM	Teaching methods used by lecturers	4.3147	1.0156	5.00	1.00
SE	Student engagement	4.1920	0.9765	5.00	1.00
LMA	Learning motivation, attitude	4.7778	0.6232	5.00	1.00
PFLC	Physical facilities and learning conditions	4.8667	0.5262	5.00	1.00

Source: Results of Survey Data Analysis Using SPSS

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The descriptive statistics table indicates that all independent variables have relatively high mean values (above 4.00), reflecting students' generally positive evaluations of these factors. Notably, Physical facilities and Learning Conditions (mean = 4.8667) and Learning Motivation and Attitude (mean = 4.7778) received the highest ratings, suggesting that students are highly satisfied with the learning environment and demonstrate relatively strong academic motivation. Teaching Methods (mean = 4.3147) and Student Engagement (mean = 4.1920) also scored well; however, these variables exhibit higher standard deviations, indicating greater variability in student perceptions regarding these two aspects.

Reliability Testing of the Research Scale:

Table 3. The analysis result of Cronbach's Alpha

Independent Variable	N of Items	Cronbach's Alpha	Corrected Item - Total Correlation min	Corrected Item - Total Correlation max
Teaching methods used by lecturers	3	0.781	0.594	0.633
Student engagement	3	0.802	0.576	0.681
Learning motivation, attitude	3	0.751	0.540	0.606
Physical facilities and learning conditions	3	0.840	0.682	0.718

Source: Results of Survey Data Analysis Using SPSS

The results of the reliability analysis using Cronbach's Alpha indicate that all measurement scales exhibit high reliability. The Cronbach's Alpha coefficients for all independent variables exceed the threshold of 0.7 (ranging from 0.751 to 0.840), demonstrating good internal consistency and confirming that the scales are sufficiently reliable for subsequent analyses. Additionally, the Corrected Item–Total Correlation values (both minimum and maximum) are all above 0.3, further supporting the reliability of each individual item within the constructed scales.

Conducting Exploratory Factor Analysis (EFA):

Table 4. Result of KMO and Barlett's test

Parameters	Value
KMO measure	0.716
Chi - Square	1545.900
Degrees of Freedom	66
Significance Level	0.001

Source: Results of Survey Data Analysis Using SPSS

The KMO measure reached $0.716 > 0.5$ and < 1 , indicating that the data are suitable for factor analysis. The Bartlett's Test of Sphericity yielded a significance value (Sig) of $0.001 < 0.005$, suggesting that the exploratory factors are appropriate. Overall, the results of the KMO and Bartlett's tests confirm that the data is suitable for conducting Exploratory Factor Analysis (EFA). More specifically, the KMO Measure was 0.716 (> 0.5 and < 1), indicating the adequacy of the variables for factor extraction. The significance level of Bartlett's Test was 0.001 (< 0.005), demonstrating that the observed variables are sufficiently correlated and can be grouped into underlying factors.

Table 5. Rotated Component Matrix^a

	Component			
	1	2	3	4
Lecturers employ diverse teaching methodologies.			0.847	
Lecturers encourage students to ask questions, express opinions, and engage in discussions during class.			0.834	
Lecturers foster a comfortable, open learning atmosphere that promotes interaction.			0.812	
Students proactively seek information and materials related to the subject outside class hours.		0.884		
Students actively participate in activities such as group discussions, practical exercises, and assignments.		0.848		

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Students remain focused and refrain from off-task behavior during class.		0.781		
Students recognize the importance and relevance of the subject matter.				0.821
Students demonstrate a serious, positive, and enthusiastic attitude towards learning.				0.814
Students believe the knowledge and skills gained from the subject are useful and essential.				0.787
Learning support equipment is adequate, modern, and meets military specifications.	0.837			
The learning environment is spacious, clean, and conducive to study.	0.877			
Learning materials are easily accessible, unambiguous, and of high quality.	0.876			

Source: Results of Survey Data Analysis Using SPSS

With a sample size of $N = 375$, all factor loadings exceeded 0.5, indicating that the observed variables possess acceptable statistical significance. The Rotated Component Matrix revealed that the 12 observed variables were clearly grouped into four distinct factors, corresponding to the four hypothesized independent variables (TM, SE, LMA, PFLC). All factor loadings ranged from 0.781 to 0.884, exceeding the threshold of 0.5, which confirms that the observed variables are statistically significant and contribute meaningfully to the interpretation of their respective factors. These findings provide strong evidence supporting the construct validity of the measurement scale used in the research.

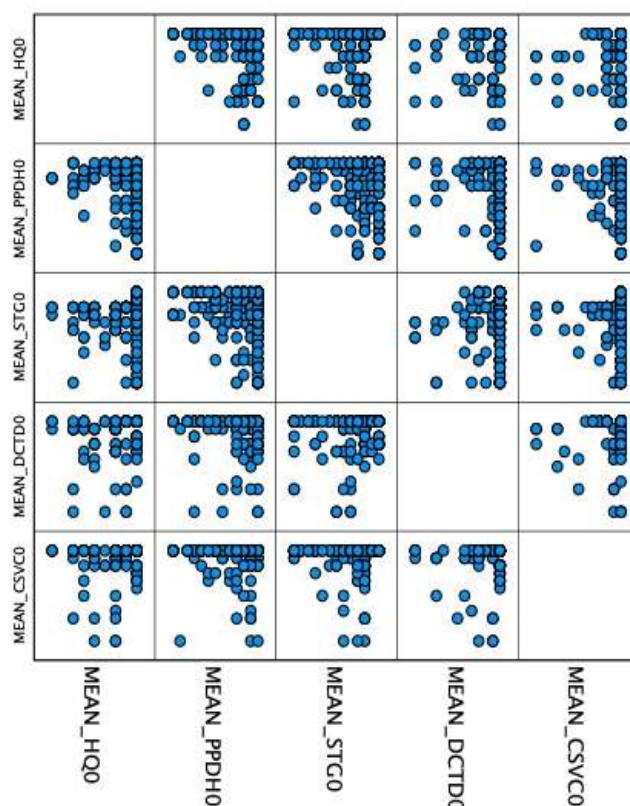


Figure 2. Diagram showing the relationship among variables

Source: Results of Survey Data Analysis Using SPSS

The matrix diagram illustrates a positive correlation between all independent variables (Teaching Methods, Student Engagement, Learning Motivation and Attitude, and Physical facilities and Learning Conditions) and students' academic results in the National Defense and Security Education. Particularly, teaching methods, student engagement, and learning motivation and attitude exhibit stronger associations with academic results. Furthermore, the independent variables are also positively correlated with one another, suggesting that a supportive learning environment may enhance both student engagement and motivation. The identified factors collectively influence students' academic outcomes in the NDSE.

DISCUSSION

This discussion section synthesizes the quantitative findings and qualitative insights from lecturer interviews to provide a comprehensive understanding of the factors influencing students' academic results in National Defense and Security Education at Ho Chi Minh City University of Education. The proposed solutions are framed around optimizing these identified significant influencing factors to enhance overall academic performance.

Teaching Methods and Pedagogical Innovation:

The quantitative results indicated that "Teaching Methods used by lecturers" (TM) had a mean score of 4.3147, reflecting a generally positive perception among students. However, its higher standard deviation (1.0156) suggested greater variability in student perceptions compared to other factors like physical facilities or motivation. This nuanced finding underscores the importance of continuous pedagogical innovation. Lecturers should continue to diversify teaching methods, moving further towards a learner-centered paradigm. This involves a deliberate shift from traditional lecture-based instruction, which, as noted in the broader literature, can often be passive (Bau & Tuan, 2018). Instead, there should be an increasing implementation of interactive activities designed to foster student proactivity. Examples include collaborative discussions, where students engage in peer-to-peer learning and critical thinking; situational problem-solving exercises, which simulate real-world scenarios to develop practical application skills; and various forms of simulations, particularly relevant for military-specific content. The effective application of information technology within lectures should also be improved to augment visuality and attractiveness, making complex NDSE topics more accessible and engaging for a generation accustomed to digital interaction. Throughout the qualitative interviews, lecturers consistently stressed the necessity of flexibly applying these teaching methods, particularly emphasizing the integration of practical examples and experiential learning activities. This approach is crucial to mitigate passivity, especially in larger class settings, by making the content tangible and relatable. Nevertheless, a critical insight from the interviews was that lecturers articulated a clear demand for additional specialized training courses. These courses should focus on innovative pedagogical methodologies specifically tailored to the unique nature of NDSE, addressing challenges such as balancing theoretical depth with practical application and engaging diverse student learning styles. This aligns with calls for continuous professional development for educators to meet evolving educational demands (Tran, Nguyen, & Le, 2025).

Fostering Student Engagement and Proactivity:

Student engagement (SE) also received a positive mean score of 4.1920, but similarly exhibited a higher standard deviation (0.9765), indicating varied levels of engagement across the student body. To address this, the university and its lecturers should actively cultivate more opportunities and implement strategies to motivate students to engage actively in both formal classroom activities and autonomous learning outside of class hours. Organizing clubs and extracurricular activities specifically related to national defense and security can be highly effective in stimulating student interest and proactive inquiry, transforming the subject from a mere academic requirement into a passion. Lecturers noted in interviews that for students to truly participate, thorough preparation of interactive activities is essential, along with initiating discussions from familiar and relatable topics to lower initial barriers to participation. This resonates with research highlighting the importance of relevance and familiarity in promoting engagement (Xu, Wang, & Xu, 2025). Furthermore, some opinions from the qualitative data demonstrated that first-year students often require stronger guidance and more deliberate scaffolding to overcome initial hesitation and adapt to the demands of NDSE, which may differ significantly from their prior learning experiences. This suggests a need for differentiated instructional strategies and early intervention programs to ensure all students feel supported and encouraged to participate actively.

Cultivating Learning Motivation and Attitude:

"Learning Motivation and Attitude" (LMA) emerged as a highly rated factor, with a mean score of 4.7778 and a low standard deviation (0.6232), indicating strong overall motivation and positive attitudes among the surveyed students. This finding is particularly significant given that LMA, along with student engagement, was identified in the abstract as one of the most pivotal factors with the strongest potential impact on academic results. Despite this positive baseline, efforts to raise awareness about the profound importance of NDSE should be continuously strengthened. This involves highlighting its significance not only in the national context—emphasizing its role in national defense and security—but also its direct relevance to students' personal benefits, such as soft skill development (e.g., discipline, teamwork, leadership) and the enhancement of critical thinking abilities. Lecturers play a crucial role in inspiring students and helping them recognize the subject's practical value beyond academic grades. According to the lecturers interviewed, a key strategy for changing perceptions of NDSE as a "peripheral subject" and thereby improving student motivation and fostering a positive attitude is by consistently linking theoretical knowledge to contemporary issues, modern defense topics, and essential life skills. This approach makes the content more dynamic, relevant, and directly applicable to students' lives and future careers, aligning with findings that intrinsic motivation and relevance strongly correlate with academic achievement (Hamm & Yeh, 2024; Kobis, Kisiółek, Karyy, Pawliczek, & Chmielarz, 2024).

Optimizing Physical Facilities and Learning Conditions:

"Physical Facilities and Learning Conditions" (PFLC) received the highest mean rating (4.8667) and the lowest standard deviation (0.5262) in the quantitative survey, suggesting a high level of student satisfaction with the learning environment. This

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positive evaluation is critical, as the research model hypothesizes a direct effect of PFLC on academic performance. Despite this strong positive perception, the university should continue its investment in and upgrading of teaching and learning support equipment, particularly military simulation devices. While current facilities are rated well, the rapidly evolving nature of military technology and security challenges necessitates continuous modernization. Optimizing conditions for both theoretical and practical training requires a consistently clean, safe, and comfortable learning environment that is conducive to effective learning. Lecturer interviews reinforced this judgment and further clarified the demand for advanced simulators and dedicated training grounds. These modern facilities directly support the effective implementation of practical lessons and innovative teaching methods, enabling students to gain hands-on experience in a realistic yet controlled setting. This aligns with broader research emphasizing the critical role of the educational environment and physical facilities in enhancing academic results (Pablo-Lerchundi et al., 2023; P. Zhang, Ma, Zhao, Ling, & Sun, 2024). The qualitative data specifically highlighted the need for investment in cutting-edge simulation technologies to bridge the gap between theoretical knowledge and practical application, ensuring students are prepared for real-world scenarios.

Integrated Implementation and Collaborative Ecosystem:

The findings from both quantitative and qualitative analyses underscore that solutions to enhance NDSE academic results require coordinated and integrated implementation. This involves close collaboration among various university stakeholders, including the University Board of Rectors, the Faculty of National Defense Education, other faculties/departments, and the students themselves, to establish a comprehensive and effective learning ecosystem. Lecturers expressed strong expectations for enhanced support from university leadership, particularly regarding appropriate class scheduling, provision of sufficient and updated learning materials, and improved interdisciplinary coordination. Such coordination is vital to integrate NDSE activities more naturally and engagingly into student life, moving beyond viewing it as an isolated subject. This holistic approach ensures that improvements in one area (e.g., teaching methods) are supported by corresponding enhancements in others (e.g., facilities, motivation), creating a synergistic effect that maximizes student learning outcomes. The interrelationships between the independent variables, as illustrated in the research model, further support this need for an integrated approach, recognizing that a supportive learning environment can enhance both student engagement and motivation. Ultimately, by addressing these interconnected factors comprehensively, HCMUE can significantly elevate the quality and impact of its NDSE program, fostering a generation of graduates who are not only academically proficient but also deeply committed to national development and defense.

CONCLUSION AND RECOMMENDATIONS

Based on the comprehensive findings and conclusions of this study, several specific recommendations are put forth to facilitate the continuous improvement of professional practice organization in NDSE programs at universities, particularly at HCMUE. These recommendations are structured to address the identified challenges systematically and holistically.

For the Ministry of Education and Training and the Ministry of National Defense:

It is crucial to promptly review and issue detailed guidelines and regulations for the innovative organization of NDSE professional practice within the higher education system. These directives should explicitly cover the diversification of practice forms, such as encouraging project-based learning, community-engaged learning, and in-depth specialized internships at military units. Furthermore, clear guidelines on the application of advanced technology in training and assessment, including the use of virtual reality (VR), augmented reality (AR), and simulation labs, are essential to modernize the learning experience. A standardized competency framework for the instructing team, outlining specific requirements for pedagogical skills, practical experience, and mentoring capabilities, should also be developed and disseminated to ensure consistent quality across institutions. Additionally, consideration should be given to allocating sufficient resources and establishing preferential policies for investment in physical infrastructure, specialized equipment, and digital learning platforms dedicated to NDSE training at universities. This strategic investment is vital to bridge the existing "technology gap" and provide students with access to state-of-the-art learning environments.

For universities offering NDSE programs (specifically Ho Chi Minh City University of Education):

Universities must proactively review and update their professional practice curricula on a regular basis, ideally every two years. This process should involve broad consultation with industry experts, experienced lecturers, successful alumni, and, crucially, representatives from partner institutions and employers (e.g., high school principals, heads of specialized departments). Such collaborative input will ensure that the curriculum content remains relevant, applicable, and aligned with the evolving demands of the profession. Furthermore, a clear roadmap for investing in and upgrading physical facilities and training equipment is imperative. Priority should be given to developing advanced simulation laboratories equipped with VR/AR technologies to facilitate the training of complex military skills in a safe and controlled environment. The university should also enhance its IT infrastructure and develop a dedicated online portal (OPMS – Online Professional Practice Management System) to streamline the management of professional practice activities, provide a rich repository of digital learning resources, and enable seamless remote interaction between lecturers and students. Simultaneously, it is vital to design and implement comprehensive, mandatory, and recurrent training programs for the entire instructing team, encompassing both university lecturers and on-site instructors. These programs should focus on

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enhancing specialized knowledge, modern pedagogical techniques, and advanced mentoring and coaching skills. The adoption of a structured dual-mentoring model, fostering close and formalized coordination between university lecturers and on-site instructors through regular joint meetings and professional development sessions, is highly recommended to ensure consistency in guidance and minimize conflicting instructions. Moreover, universities should actively promote and pilot diverse and flexible practice forms, such as community-engaged learning initiatives where students participate in local defense and security activities, and project-based practice where students undertake real-world research or application projects. The assessment mechanisms for professional practice must also be reformed to be more holistic and equitable. This involves shifting from reliance on a few "snapshot" observations of teaching performance to a more comprehensive evaluation of the entire learning process, potentially through the development and utilization of student portfolios that document their skills, reflections, and achievements throughout the practice period.

For NDSE Lecturers and Instructors:

Individuals within the instructing team must actively engage in self-development, continuously updating their specialized knowledge in NDSE and staying abreast of new trends in military science and security challenges. They should also embrace pedagogical innovation, flexibly applying diverse teaching methods, and effectively leveraging new technologies in guiding student practice. A critical focus should be placed on enhancing mentoring and coaching skills, ensuring that they provide in-depth, personalized guidance that extends beyond mere technical instruction to encompass psychological support and career orientation for each student.

For Students in NDSE Programs:

Students are encouraged to be proactive and highly engaged throughout their theoretical learning and practical activities. They should view professional practice as an invaluable opportunity for self-development and gaining practical experience. Continuous self-improvement, diligent practice of professional skills, and the cultivation of essential qualities for future NDSE teachers are paramount. Students must also cultivate adaptability and a proactive mindset to meet the increasingly demanding and dynamic requirements of the profession.

These recommendations, when implemented comprehensively and effectively, are expected to bring about significant positive transformations in the organization of NDSE professional practice. This will, in turn, contribute substantially to training high-quality human resources who are well-equipped to meet the evolving demands of national construction and defense in the contemporary era.

About funding: The study received no funding.

Declaration of Interest: This study does not have any conflicts of interest.

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