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Original Research Article

Current Status of the Operational Model of Practical Workshops and Human Resource Development for Practical Workshops at FPT Polytechnic Hanoi

Nguyễn Thị Duyên(M.A.)[1*], Phan Thị Việt Hà(M.A.)[1]

[1]Department of Tourism Management – Hospitality – Culinary Arts - FPT Polytechnic Hanoi, Vietnam

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Abstract: This article examines several foundational theories related to practical workshops. Building upon these theories, the research presents findings on the current operational model of the practical workshop and the human resources involved in its development at FPT Polytechnic Hanoi College. The study was conducted through surveys, interviews, and data analysis from both faculty members and students. By analyzing the successes and limitations of the existing workshop model and its human resources at FPT Polytechnic, the article proposes a range of strategies aimed at enhancing the operational framework and improving the quality of human resources, ultimately fostering a more conducive learning and practical environment for students.

Keywords: Practical workshop, FPT Polytechnic Hanoi, human resources.

1. INTRODUCTION

In the contemporary educational landscape, vocational education is increasingly regarded as a critical component. This form of education addresses societal needs by cultivating a highly skilled workforce. Consequently, many educational institutions are prioritizing practice-oriented training.

Despite the growing number of learners, enhancing the quality of vocational skills remains a significant challenge for vocational education providers. Expanding or deepening specialization and practical skills goes beyond mere teaching, learning, or in-class practice; it necessitates the incorporation of educational models that enable learners to fully unlock their potential.

At FPT Polytechnic College, the integration of theoretical knowledge with hands-on experience is a fundamental determinant of training quality. The institution has developed an advanced system of practical workshop models, conducted outside regular class hours, to offer students invaluable real-world experiences.

This article will critically examine the current state of the practical workshop model and the human resources responsible for its development at FPT Polytechnic College.

2. THEORETICAL FOUNDATION AND RESEARCH METHODS

2.1. Theoretical Foundation of Practical Workshops

The term "practical workshop" refers to a learning space equipped with the necessary tools, machinery, and equipment to allow students to apply the knowledge they have learned. Here, students not only practice their skills but also gain real-world work experience, helping them develop critical thinking and problem-solving abilities.

A key characteristic of a practical workshop is its provision of modern machinery, equipment, and technology that aligns with specific fields of study (such as hospitality, tourism, beauty care, information technology, graphic design, e-commerce, mechanical engineering, etc.). Workshops are typically supervised and guided by instructors or experts, ensuring that students master both skills and work processes. Learners are given opportunities to carry out exercises, projects,

***Corresponding Author:** Nguyễn Thị Duyên
Department of Tourism Management – Hospitality – Culinary Arts - FPT Polytechnic Hanoi, Vietnam

or research, thereby developing their technical skills and creative thinking. This environment encourages the exchange of ideas, teamwork, and peer learning. Additionally, practical workshops may collaborate with businesses, offering students internship opportunities and exposure to real-world work environments.

Practical workshops hold significant importance in vocational education for several reasons: Firstly, workshops serve as a bridge between theory and practice, enabling students to apply theoretical knowledge in real-world situations, thereby reinforcing and expanding their understanding.

Secondly, workshops provide an environment for students to fully develop practical skills, offering them opportunities to hone their technical abilities and enhance their capacity to work in real-world settings.

Thirdly, workshops motivate students' learning and work ethics while fostering creativity, allowing them to develop innovative thinking and problem-solving skills through hands-on projects.

Fourthly, by partnering with businesses, workshops enable students to gain insight into real job practices and market demands, increasing their chances of securing internships or employment post-graduation.

Fifthly, practical workshops offer a platform for evaluating students' abilities in a work environment. This allows instructors to provide immediate feedback on students' performance, helping them improve their skills in a timely manner.

Sixthly, workshops help boost students' confidence after successfully completing projects, encouraging an entrepreneurial spirit that inspires them to challenge themselves and explore new ideas.

Various models of practical workshops are widely implemented in educational institutions, particularly in fields such as technology, engineering, and services. Here are some common models:

Traditional Practical Workshop: Equipped with basic machinery and tools for fields like mechanical engineering, electronics, and construction, this model focuses on developing core skills, with students often working individually or in groups under the supervision of instructors.

Multidisciplinary Practical Workshop: Designed to accommodate multiple fields of study, ranging from information technology to electronics and mechanical engineering. This model provides a flexible space that allows students from different disciplines to collaborate and work together.

High-Tech Practical Workshop: Equipped with cutting-edge technologies such as 3D printers, automated robots, and IoT devices, this model focuses on teaching advanced skills. Students have the opportunity to work with the latest technologies and develop creative projects.

Project-Based Practical Workshop: Focused on completing specific projects, often in collaboration with businesses. Students work in teams to complete real-world projects, learning to solve problems and manage projects. This model involves close cooperation with companies, which provide equipment, resources, or expert guidance, offering students valuable insights into market requirements.

Online Practical Workshop: Utilizes simulation technology and virtual reality to create an online practical experience. This model is particularly suitable for fields like programming, electronics, and design, allowing students to practice in a virtual environment.

2.2. Research Methods

Survey Method: The author conducted surveys at various practical workshops at FPT Polytechnic Hanoi College, including the Restaurant Service Workshop, Bakery Workshop, Tour Assistance for Business Workshop, Video Motion Graphic Design with Cinema 4D Workshop, Contract Execution in Logistics Workshop, Beauty Model Workshop, Video Marketing Production Workshop, Javascript Programming Workshop, Super Mario Game Development Workshop, and Lean Startup Business Model Workshop. The aim was to investigate the current operations, outcomes, and human resources of these workshops. The survey involved 10 workshops with 100 learners and interviews with 10 instructors. The survey period was from November 2024 to January 2025. Data Collection and Analysis Method: Data related to the workshop operation models at FPT Polytechnic College were collected through regular reports on workshop activities and real-time survey data.

Composite Scoring Method: The author developed a composite scoring scale and selected criteria to assess the current state of the practical workshop models and human resources involved in their development at FPT Polytechnic College.

Each criterion was evaluated using a 5-point Likert scale, with scores ranging from low to high: 1, 2, 3, 4, and 5. The evaluation standards for each level are outlined in Table 1.

Table 1: Summary of Evaluation Levels Based on the Likert Scale

Evaluation Level	**1**	**2**	**3**	**4**	**5**
Average Score	1,00 - 1,90	1,91 - 2,90	2,91 - 3,40	3,41- 4,49	4,50 - 5,00
Evaluation Level	1	2	3	4	5
Conclusion	Extremely Poor	Poor	Fair	Good	Excellent

Source: Author

3. RESEARCH RESULTS

3.1. Current Status of the Practical Workshop Model at FPT Polytechnic Hanoi College

Currently, the practical workshops at FPT Polytechnic Hanoi College are equipped with modern and comprehensive facilities, serving various fields such as Hospitality Management, Tourism Guidance, Information Technology, E-commerce, and Business Administration. Learners have the opportunity to participate in hands-on courses under the guidance of experienced instructors. In addition, the college regularly updates and upgrades its equipment to ensure it meets the educational needs and market trends. As of now, FPT Polytechnic Hanoi College has 52 practical workshops with 11,526 learners participating and 2,576 hours of workshop activity. The college has also established a "Quality Management Process for Practical Workshops," issued on December 28, 2023, with three levels of projects:

Level 1 Project: Practice and application of basic skills within the subject or across subjects.

Level 2 Project: Application of skills and knowledge learned in real internal projects.

Level 3 Project: Application of skills and knowledge learned in real projects serving external clients.

The author randomly surveyed 100 learners participating in the 10 workshops with the highest number of learners. The survey included: 10 responses from the Restaurant Service Workshop, 10 from the Bakery Workshop, 10 from the Tour Assistance for Business Workshop, 10 from the Video Motion Graphic Design with Cinema 4D Workshop, 10 from the Contract Execution in Logistics Workshop, 10 from the Beauty Model Workshop, 10 from the Video Marketing Production Workshop, 10 from the Javascript Programming Workshop, 10 from the Super Mario Game Development Workshop, and 10 from the Lean Startup Business Model Workshop. Additionally, 10 instructors were randomly interviewed.

Among the 100 learners surveyed, 58 were male (58%) and 42 were female (42%). The learners surveyed were between 19 and 30 years old.

According to the learners' evaluation of the workshop operation model at FPT Polytechnic Hanoi College, the main source of information about the practical workshops came from faculty recommendations (76%), while 24% learned about the workshops through websites and social media pages. This result indicates that the primary way learners access information about practical workshops is through their instructors, highlighting the critical role instructors play in guiding learners.

A high percentage of learners (72%) remained committed to the practical workshops throughout their studies at the college, while 28% did not. The reasons for staying engaged with the workshops include enhancing professional skills (78%), reinforcing classroom knowledge (71%), gaining real-world experience (48%), improving employment opportunities (34%), and other reasons (20%). This suggests that the primary motivation for learners to participate in workshop activities is to enhance their vocational skills and solidify their classroom learning, with other reasons having a lower priority.

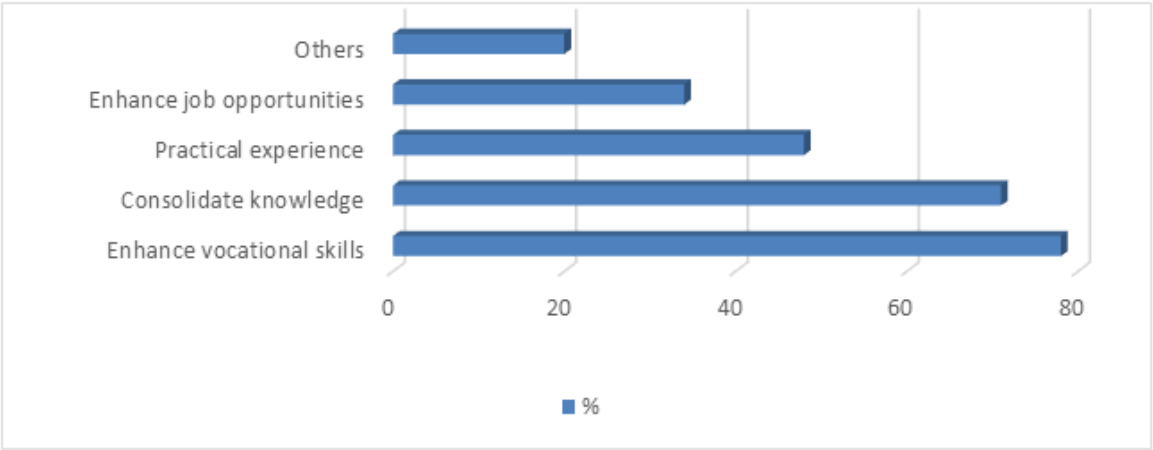

Figure 1: Learners' Reasons for Commitment
Source: Author's survey

In reality, some workshops are not yet engaging or attractive to learners because their activities do not meet the learners' needs. This limitation leads to many learners becoming discouraged and abandoning the workshop midway or engaging passively. Therefore, it is essential to develop more diverse workshop content that is more closely tied to practical experiences, in order to enhance the quality of the practical workshop activities.

To gather learners' feedback, the author uses the following criteria: the appeal of the workshop activities' content, the workshop's facilities, the quality of the products created by the learners, the dedication of the instructors or mentors, and the timing of the workshop activities.

The facilities and the dedication of the instructors or mentors received high ratings, with average scores of 4.65 and 4.52, respectively. This indicates that the practical workshops at FPT Polytechnic College have strengths that allow for continued investment and development.

Table 2: Survey Results of Learners' Feedback

Criterion	Average Score	Conclusion
Appeal of the workshop activity content	3,42	Average
Workshop facilities	4,65	Excellent
Quality of the products created by learners	3,48	Good
Dedication of the instructors or mentors	4,52	Excellent
Timing of the workshop activities	3,4	Average

Source: Author

The workshop activity timing was rated as Average with a score of 3.4, due to the varying schedules of the learners. As the workshops are planned at the beginning of the semester, it is challenging for learners to fully participate in all workshop activities. The appeal of the workshop activity content received an Average rating with a score of 3.42, as the activities are still somewhat limited in diversity and lack creative ideas. The quality of the products created by the learners was rated with an Average score of 3.48, indicating that while learners rate it positively, there is still room for improvement in the quality of the products produced in the workshop activities.

Learners' overall satisfaction level averaged a score of 3.9. Of this, 32% were Very Satisfied, 45% were Satisfied, 22% were Neutral, 1% were Dissatisfied, and 0% were Very Dissatisfied.

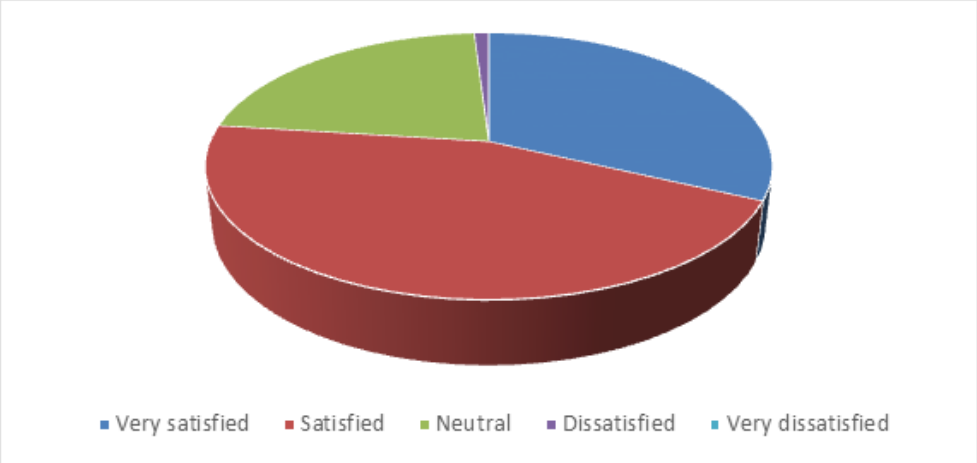

Figure 2: Learners' Satisfaction Level shows that, thanks to the facilities
Source: Author

From the chart, it can be observed that although there are some limitations in the criteria of instructor dedication, the quality of the products created by learners, the timing of the workshop activities, and the appeal of the workshop activity content, the overall satisfaction level of learners at FPT Polytechnic Hanoi College remains high. As a result, 72% of learners are committed to participating in workshop activities.

3.2. Current Status of Human Resources for Developing the Workshop Activity Model at FPT Polytechnic Hanoi

3.2.1 Human Resources at the College

In the development of the workshop activity model at FPT Polytechnic, the primary human resource is the faculty members at the college, which is a key factor in the success of this model. The human resources at the college consist of highly trained, professional, and skilled staff. The number of lecturers involved in

workshop activities at FPT Polytechnic Hanoi is 229. The faculty team is diverse in terms of both quantity and expertise, allowing for the diversification of majors and teaching fields, helping students gain access to a wide range of knowledge and skills.

Many instructors have extensive practical experience, which helps students gain a deeper understanding of the industry they are studying and allows them to guide and assist students in practical projects. With a large number of instructors, students can receive faster support and feedback during their learning and practice. However, some instructors lack extensive teaching experience due to their relatively young age, making it difficult to convey and implement certain aspects of the practical workshop activities.

The scheduling of workshop participation also faces difficulties due to the heavy teaching loads of the instructors, particularly in high-demand majors. Managing and ensuring the quality of teaching within such a large faculty team can be challenging, especially when it comes to standardizing teaching methods and evaluation criteria.

3.2.2. Human Resources from Experts or Enterprises

In addition to the human resources from the faculty, a significant contribution comes from experts and enterprises. This human resource plays an essential role in enhancing the effectiveness of workshop activities at FPT Polytechnic Hanoi. FPT Polytechnic Hanoi collaborates with 182 businesses to support students in their workshop activities. Experts from these companies bring practical knowledge and rich experience, helping students gain deeper insights into their field of study. They can guide and assist students with practical projects.

Moreover, the collaboration with enterprises creates numerous opportunities for students to intern and work, thereby enhancing their competitiveness in the job market. Furthermore, experts often update the latest technologies and trends in the industry, ensuring that the workshop activities remain relevant to practical needs and the market. The relationships with enterprises help the workshops build a broad network, which leads to more opportunities for cooperation, sponsorship, and the development of training programs.

However, the participation of experts from enterprises may not be stable or continuous, which could lead to a shortage of resources at certain times, affecting the quality of student support. Additionally, not all experts have the ability to teach effectively. Differences in teaching styles and knowledge quality may cause difficulties for students in accessing information. Moreover, businesses may have specific requirements regarding skills and knowledge, putting pressure on the workshop to adjust the curriculum to meet these demands.

3.3. Overall Evaluation of the Workshop Activity Model and Human Resources Supporting the Development of Workshop Activities at FPT Polytechnic Hanoi

Regarding the potential for developing the workshop activity model at FPT Polytechnic Hanoi, the criteria of infrastructure, human resources, and policies were highly rated by lecturers, scoring 4.32 points. The criteria for the content of the workshop programs and the duration of workshop activities were rated 3.4, indicating that the existing infrastructure and equipment meet the practical needs of students well. This is a significant advantage in improving the quality of training and practical experience.

The active participation of lecturers and experts from enterprises contributes to improving the quality of workshop activities, creating many opportunities for hands-on learning for students. The support policies from the school were also positively rated, facilitating the workshop activities and the development of students.

However, with scores of 3.3 and 3.42, it is evident that the content of the programs and the timing of the workshop activities need improvement to better meet the learning and practical needs of the students.

Consultations with 10 lecturers about the difficulties in developing the workshop activity model at FPT Polytechnic Hanoi resulted in the following findings:

Table 3: Survey Results of Faculty Opinions

Criteria	**Score**
Facilities	4,32
Human Resources	4,3
Policy Mechanisms	4,41
Content of Workshop Activity Program	3,42
Time for Organizing Workshop Activities	3,3

Source: Author

The results indicate that the biggest challenge hindering the development of the workshop activity model at FPT Polytechnic Hanoi is the need for improvements in the content and scheduling of the workshop activities to make them more suitable. In addition, many students also express a strong desire to participate in workshop activities in order to enhance their personal skills and contribute to the development of the workshop activity model at FPT Polytechnic Hanoi.

3.4. Solutions for Developing the Workshop Model at FPT Polytechnic Hanoi

Based on the issues analyzed, the author proposes several solutions to develop the workshop model at FPT Polytechnic Hanoi in order to enhance the effectiveness of the workshop activities.

First, the content of the workshop programs should be regularly reviewed and updated to ensure its

relevance to industry trends and business needs. Workshops or seminars with experts should be organized to gather feedback. The curriculum should include new technologies, advanced techniques, and modern working methods to equip students with the necessary skills.

Second, diversify the workshop activities by designing various types of practical activities, including group projects, individual tasks, and real-world activities with businesses.

Third, integrate real-time assessments by obtaining feedback from businesses on students' work products, helping students improve their skills, thinking, and professional abilities.

Fourth, arrange workshop schedules scientifically by creating flexible schedules that allow students to choose times that align with their class schedules and personal work commitments.

Fifth, organize practice sessions at different times throughout the week, offering students more options and ensuring that there is sufficient time to complete projects. This will encourage creativity and practical application. It will also motivate students to engage in long-term projects, allowing for deeper involvement with the workshop activities.

Sixth, support students by providing materials, tutorial videos, and online resources to help them self-learn and conduct additional research outside of their scheduled practical hours. Create conditions for students to access equipment and workshop spaces beyond official class times to work on individual or group projects.

Seventh, organize training and skill development programs for lecturers to improve their teaching abilities and update them on new teaching methods, especially in the context of rapidly evolving technologies.

Eighth, strengthen the relationships with businesses to create more internship and employment opportunities for students. Organize more frequent exchange programs, seminars, and networking events to connect students with businesses.

Ninth, establish a regular evaluation mechanism for the quality of workshop activities and the effectiveness of human resources, in order to make timely adjustments to improve training quality.

4. CONCLUSION

The workshop model at FPT Polytechnic Hanoi has demonstrated significant potential in enhancing the quality of education and equipping students with practical skills. Through research, the author found that human resources, including lecturers and industry experts, play a crucial role in the development of the workshop activities. The team of highly qualified lecturers with practical experience not only facilitates students' access to new knowledge but also encourages creativity and innovation in the learning process.

However, there are still challenges that need to be addressed, such as the content of the workshop programs not fully meeting real-world demands and the limited duration of workshop activities. To optimize this model, it is necessary to implement solutions such as improving program content, diversifying practical activities, and organizing workshop schedules more effectively. These measures will help students engage more fully in the workshop activities, thus enhancing their learning outcomes and competitiveness in the job market.

In conclusion, the workshop model and human resources at FPT Polytechnic Hanoi are on a strong growth trajectory. Continued investment and improvements will open up more opportunities for students and contribute to enhancing the quality of education at the institution. It is hoped that the findings of this study will provide a foundation for practical solutions to sustainably develop the workshop model in the future.

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