

INTELLECTUAL PROPERTY ADVOCACY IN COLLEGES AND SECONDARY SCHOOLS IN HO CHI MINH CITY: DETERMINING THE ROLE OF EDUCATION



ADVOCACIA DA PROPRIEDADE INTELECTUAL EM FACULDADES E ESCOLAS DE ENSINO MÉDIO NA CIDADE DE HO CHI MINH: DETERMINANDO O PAPEL DA EDUCAÇÃO

Lan Chi Le

Associate Professor, PhD. Sai Gon University, Ho Chi Minh City, Vietnam.
ORCID: <https://orcid.org/0009-0009-8715-3440>
Email: lechilan@sgu.edu.vn

LongAn Dang Nguyen

PhD. Ho Chi Minh City College of Economics, Ho Chi Minh City, Vietnam.
ORCID: <https://orcid.org/0000-0001-6344-9946>
Email: longnda@kthcm.edu.vn

Thuan Van Pham

Associate Professor, PhD. National Academy of Education Management, Hanoi,
Vietnam.
ORCID: <https://orcid.org/0000-0003-0805-5084>
Corresponding author: Email: thuanpv@vnu.edu.vn

Abstract: In the context of strong globalization and digital transformation, intellectual property plays an increasingly important role in the education and innovation ecosystem. Especially in colleges and secondary schools, where the workforce is directly trained for the knowledge economy, education is not only a channel for imparting knowledge, but also a strategic tool in advocacy, raising awareness and guiding students' behavior in compliance with intellectual property laws. This article focuses on determining the role of education in promoting intellectual property in colleges and secondary schools in Ho Chi Minh City through a combination of qualitative methods (interviews with 17 managers, lecturers and experts in the field of intellectual property and education) and quantitative surveys of 234 people, including managers, lecturers and students. The survey results show that education has a positive impact on learners' awareness and attitudes towards intellectual property; however, the level of integration of intellectual property content into the curriculum and extracurricular activities is still modest. The survey data tables with a 5-point Likert scale clearly reflect the level of consensus and assessment of the survey groups. On this basis, the article proposes solutions to enhance the effectiveness of intellectual property education through targeted initiatives, including the design of specialized training modules, training of lecturers to master intellectual property knowledge, development of school communication materials, and promotion of cooperation between schools and specialized agencies. The article contributes to providing practical and academic arguments for the development of intellectual property education policies in the context of comprehensive innovation in vocational education.

Keywords: intellectual property propaganda. colleges and secondary schools. intellectual property awareness. role of education.

Resumo: No contexto de forte globalização e transformação digital, a propriedade intelectual desempenha um papel cada vez mais importante no ecossistema de educação e inovação. Especialmente em faculdades e escolas de ensino médio, onde a força de trabalho é diretamente treinada para a economia do conhecimento, a educação não é apenas um canal para transmitir conhecimento, mas também uma ferramenta estratégica de advocacy, conscientização e orientação do comportamento dos alunos em conformidade com as leis de propriedade intelectual. Este artigo se concentra em determinar o papel da educação na promoção da propriedade intelectual em faculdades e escolas de ensino médio na Cidade de Ho Chi Minh por meio de uma combinação de métodos qualitativos (entrevistas com 17 gestores, professores e especialistas na área de propriedade intelectual e educação) e pesquisas quantitativas com 234 pessoas, incluindo gestores, professores e alunos. Os resultados da pesquisa mostram que a educação tem um impacto positivo na conscientização e nas atitudes dos alunos em relação à propriedade intelectual; no entanto, o nível de integração do conteúdo de propriedade intelectual no currículo e nas atividades extracurriculares ainda é modesto. As tabelas de dados da pesquisa com uma escala Likert de 5 pontos refletem claramente o nível de consenso e avaliação dos grupos de pesquisa. Com base nisso, o artigo propõe soluções para aumentar a eficácia da educação em propriedade intelectual por meio de iniciativas direcionadas, incluindo a concepção de módulos de treinamento especializados, a capacitação de professores para o domínio do conhecimento em propriedade intelectual, o desenvolvimento de materiais de comunicação escolar e a promoção da cooperação entre escolas e agências especializadas. O artigo contribui para fornecer argumentos práticos e acadêmicos para o desenvolvimento de políticas de educação em propriedade intelectual no contexto da inovação abrangente na educação profissional.

Palavras-chave: propaganda de propriedade intelectual. faculdades e escolas secundárias. conscientização sobre propriedade intelectual. papel da educação.

Introduction

In the era of knowledge and innovation, intellectual property has become one of the most important pillars of sustainable socio-economic development. With the strong growth of the knowledge-based economy, especially in the context of deep international integration and comprehensive digital transformation, the correct awareness and practice of intellectual property rights have become essential requirements for all citizens, especially the young generation. In particular, education is seen as a key tool to form awareness, attitudes and behaviors in compliance with intellectual property laws in the school community.

Education is not only a process of imparting knowledge, but also an environment for forming values, building qualities and capacity for action for learners. In vocational training institutions such as colleges and intermediate schools, where technical workers are trained to directly participate in production and business activities, the role of education in promoting and raising awareness of intellectual property becomes even more urgent. This is a group of people who have easy access to creative products, but are also susceptible to intellectual property violations if they are not fully equipped with knowledge and skills to prevent them.

In Vietnam, in recent years, state agencies such as the Government (2018), the Intellectual Property Office (2022a & 2022b), and the Ministry of Science and Technology (2025) have implemented many programs and strategies to raise public awareness of intellectual property. However, at the school level, especially vocational schools, intellectual property propaganda has not been implemented synchronously, lacks depth, and has not become official content in the training program. Some previous studies have shown that students at vocational education institutions often lack understanding of copyright, copyright infringement in their studies, or do not realize that plagiarism is a violation of intellectual property law (Phi, 2022). This situation not only poses a challenge in the education of professional ethics but also affects the development of the national knowledge economy.

Propagating intellectual property in schools can be done through many forms such as: integrating into the curriculum, organizing extracurricular activities, developing communication materials, organizing creative competitions, or linking with professional organizations outside the school (Department of Intellectual Property, 2025). However, the implementation of these forms requires active participation from the board of directors, lecturers, mass organizations and students. In addition, the leading and guiding role of education policies and state management is also decisive for the effectiveness of practical implementation.

According to the World Intellectual Property Organization (WIPO, 2004), intellectual property education should begin at primary school level and be continued throughout the learning process, in order to create a generation with creative capacity and compliance with intellectual property laws. While many developed countries have issued official intellectual property curriculum frameworks at all levels of education, in Vietnam, this content is still fragmented, mainly integrated into related subjects or through scattered propaganda programs. Therefore, the question is: What role is education currently playing in propagating intellectual property to students? What factors are hindering the effectiveness of propaganda through education? And what solutions are needed to promote the role of education in this work in a practical, systematic and sustainable manner?

This article aims to identify and analyze the role of education in promoting intellectual property in colleges and secondary schools in Ho Chi Minh City, the largest economic, scientific and technological center in the country. Ho Chi Minh City was chosen as the survey location not only because of the scale of the large vocational school system but also because it is leading the country in the number of inventions, utility solutions, copyright registrations and creative products of students (Department of Science & Technology of Ho Chi Minh City, 2025).

The study uses a combination of qualitative methods (in-depth interviews with 17 managers, lecturers and experts in the field of intellectual property and education) and quantitative methods (survey questionnaires of 234 subjects: including 46 managers, 82 lecturers, and 106 students at colleges and secondary schools in Ho Chi Minh City). The 5-point Likert scale was used to measure the level of consensus of respondents on the role, level of integration, effectiveness, and awareness of intellectual property education activities. Quantitative data were processed using statistical

software to calculate the average score, thereby assessing cognitive and behavioral trends.

The research results show that although schools have initially recognized the importance of intellectual property propaganda, the level of integration of this content into the curriculum is still limited. Propaganda activities mainly focus on occasions responding to intellectual property days, or associated with the creative movement of the Youth Union, there is no regular organization mechanism and no connection with vocational training content (Central Committee of the Ho Chi Minh Communist Youth Union, 2021). Students' awareness of copyright, copyright infringement, plagiarism, legal use of digital resources, etc., is still quite low (Huyen, 2023). In addition, lecturers are not equipped with enough professional knowledge to integrate intellectual property content into the teaching process, while schools lack teaching materials and internal guidelines.

Based on the empirical findings, the article proposes practical recommendations such as: issuing an intellectual property curriculum framework specifically for vocational schools; organizing training for lecturers on intellectual property knowledge and skills integrated into teaching; developing a set of specialized communication materials for students; strengthening the connection between schools and specialized agencies such as the Intellectual Property Office, the Department of Science & Technology, and the Youth Union to implement practical and sustainable propaganda activities.

By approaching the issue from both theory and practice, from an educational and sociological perspective, the article not only contributes to clarifying the role of education in intellectual property propaganda, but also contributes to perfecting vocational education policies in the context of building a learning society and a creative economy in Vietnam.

Literature Review

Theoretical basis of intellectual property education

Intellectual property is a core part of the knowledge economy, demonstrating the connection between creativity, innovation and sustainable development. According to the World Intellectual Property Organization (WIPO), intellectual property is a set of legal rights that protect human intellectual achievements such as inventions, industrial designs, trademarks, copyrights and related rights. Intellectual property education is understood as the process of organizing activities to raise awareness, knowledge and skills related to the protection, use and legal exploitation of intellectual property (WIPO, 2017).

The sociological theory of education argues that education not only transmits knowledge but also maintains and reproduces social values, including laws and professional ethics of Durkheim (1911), Bourdieu & Passeron (1977) (UNESCO, 1993). Integrating legal education, especially intellectual property law, into schools contributes to forming legal awareness, helping learners become responsible and law-abiding citizens.

From a practical perspective, intellectual property education can include activities such as teaching seminars, organizing seminars, developing learning materials, organizing creative competitions or integrating into related subjects such as civic education, law, and professional ethics. Some countries, such as Korea, Japan, the UK, and the US, have established official intellectual property curricula in general and university education (JPO, 2021; USPTO, 2020), while many developing countries still mainly approach it in a propaganda manner.

International Research on the Role of Education in Intellectual Property Promotion

Across the world, many studies have confirmed the role of education in raising awareness and legal capacity of intellectual property. According to the study of Zhu, W. Y., and S. C. Zhang (2022), intellectual property education helps students understand the value of creativity, legal responsibilities when using intellectual property, and at the same time encourages creative and innovative behavior in learning and research.

In Korea, the intellectual property education program implemented by the Korean Intellectual Property Office (KIPO) since 2006 has achieved many positive results. Training modules are officially taught at universities and vocational schools, helping students understand the mechanism of patent protection, copyright and practical applications in startups (Shin, 2000). Similarly, since 2004, Japan has built an intellectual property education curriculum system for high school students, with topics on music copyright, logo design, and legal software use, contributing to a significant reduction in copyright infringement in schools (JPO, 2021).

In the United States, the United States Patent and Trademark Office (USPTO) organizes "IP Education Week" programs and interactive online materials for students of vocational schools and universities. Heikkinen's (2001) study shows that students who are properly educated about intellectual property tend to commit fewer copyright infringements and plagiarism and have better abilities in research and creative product development.

In general, international studies emphasize that education is the foundation for establishing legal awareness of intellectual property, contributing significantly to preventing violations and building a creative and compliant school environment.

Domestic research on intellectual property education and propaganda

In Vietnam, the field of intellectual property education is quite new and there are not many in-depth research works. Some reports of the Department of Intellectual Property - Ministry of Science and Technology (2021 & 2023) show that intellectual property propaganda among students is mainly carried out in the form of popularizing the law, and has not become an official teaching content in the curriculum of colleges and intermediate schools.

However, according to research by Hoang Yen (2021), most students are not fully aware of the types of intellectual property rights and are still confused between copyright, patents, and trademarks. An assessment by Nguyen Van (2022) shows that only about 28% of students correctly understand the concept of "copyright" and less than 10% know how to register a patent or trademark for personal creative products. Acts of software copyright infringement, plagiarism in assignments, and the use of documents without citing sources are still common. The study also shows that the lower the awareness, the higher the rate of infringement, while access to intellectual property education has a direct impact on learners' awareness and behavior.

Some large higher education institutions such as Can Tho University, Ho Chi Minh City University of Culture, Ho Chi Minh City University of Technology, etc., have implemented the program. Ho Chi Minh City University of Science, University of Economics and Law, University of Social Sciences and Humanities, etc., have taken the lead in integrating intellectual property (IP) content into formal training programs or implementing extracurricular activities related to IP. However, these initiatives are still mainly individual, lacking comprehensive coordination and have not yet established a sustainable network of connections between universities to promote IP education in a systematic and long-term manner.

A survey by the Department of Science and Technology of Ho Chi Minh City (2023) showed that up to 64% of managers at vocational schools do not have internal guidelines on intellectual property; 71% of students do not know how to register copyrights; and 52% of lecturers have never attended an intellectual property training course. This shows a large gap between intellectual property advocacy policies and implementation capacity at the school level.

Research gaps and approach directions

From an overview of domestic and foreign works, it can be seen that: (i) Education is one of the effective channels to raise awareness of intellectual property; (ii) Developed countries have built a systematic intellectual property education program from primary to university levels, while Vietnam still mainly approaches it in a single propaganda direction; (iii) International studies emphasize the relationship between education and intellectual property law compliance behavior, but in Vietnam, this relationship has not been systematically tested empirically.

The current important gap is the lack of large-scale quantitative studies, surveying the awareness and behavior of learners at vocational schools, who are vulnerable to copyright infringement but have little access to intellectual property education programs. In addition, there have not been many studies specifically assessing the effectiveness of education in the role of intellectual property promotion from the perspective of policy, practical organization and the perceptions of different groups of subjects in schools, such as managers, lecturers and students.

Therefore, this article chooses a multidimensional approach, combining qualitative and quantitative, to measure the actual role of education in intellectual property promotion at colleges and secondary schools in Ho Chi Minh City. The choice of research location is not only based on the city's pioneering role in creative activities, but also aims to provide practical arguments for building intellectual property promotion policies suitable for the characteristics of vocational education in large cities.

Methodology

Approach and methodology

To determine the role of education in promoting intellectual property (IP) at colleges and secondary schools in Ho Chi Minh City, the article uses a mixed-method approach, combining qualitative and quantitative methods. This approach helps to reflect both the depth (qualitative insights) and breadth (quantitative patterns) of the research problem, thereby providing comprehensive and objective assessments.

The qualitative method is deployed to collect opinions of experts, managers and lecturers with experience in promoting, teaching or organizing activities related to IP at vocational schools. The goal of this method is to explore the views, assessments and proposed solutions from subjects who have a role in shaping educational policies at the institution.

Quantitative methods were used to measure the awareness, level of access, attitude and assessment of managers, lecturers, students and pupils on the role of education in intellectual property promotion. Through a survey questionnaire, the study quantified data to determine the level of consensus, identify gaps and orient improvement proposals based on empirical evidence.

Subjects and survey samples

The research subjects include three main groups: (i) Education management staff: Principals, vice principals, heads of training departments, and staff in charge of propaganda work at colleges and secondary schools; (ii) Lecturers and teachers: Those who directly teach specialized subjects or subjects related to law, entrepreneurship, life skills, professional skills; (iii) Students: Those who study directly at colleges and secondary schools, can access and participate in intellectual property propaganda activities in schools. The total number of survey samples is 234 people, divided into the following groups:

Table 1. Survey participants

Order	Survey Group	Frequency (n)	Ratio (%)
1	Administrators	46	19.66
2	Lecturers, teachers	82	35.04
3	Students	106	45.30
Total		234	100

Source: Authors results

The sampling method in the study was applied in the direction of convenience sampling, with support from vocational training institutions in Ho Chi Minh City. The sampling process was carried out to ensure diversity in terms of training institution types (public and non-public), training fields (technical, service, art, etc.), as well as distribution areas (inner city and suburbs). This approach contributed to ensuring relative representation for the target groups within the research framework.

Data collection tools

Semi-structured interviews: conducted with 17 people, including 5 managers, 7 lecturers, and 5 experts in intellectual property or vocational education management, the number of semi-structured interviewees was coded from TL1 to TL15. The questions focus on perceptions of the current situation, role, barriers and recommendations in promoting intellectual property through education.

The survey questionnaire (questionnaire) is designed with 3 main parts: (i) Demographic information; (ii) Awareness and assessment of intellectual property education content (integration of curriculum, extracurricular activities, etc.); (iii) Effectiveness and role of education in changing school awareness and behavior.

The scale used is a 5-level Likert scale, from: 1 - Completely disagree/Very weak; 2 - Disagree/Weak; 3 - Neutral/Normal; 4 - Agree/Good; 5 - Strongly agree/Very good. Each survey includes from 5 to 7 specific criteria. The 5-level Likert scale used in the study is suitable for the purpose of surveying the level of awareness, attitude, or assessment of participants towards specific criteria. The clear definition of each level from 1 (Strongly disagree/Very weak) to 5 (Strongly agree/Very good) helps ensure consistency in responses and increases the reliability of the collected data. In addition, the design of each survey with 5 to 7 specific criteria allows for detailed and in-depth information exploitation, while avoiding overloading the respondents. This approach shows the rationality in the design of the research tool, contributing to improving the feasibility and analytical value of the data.

Data analysis

Qualitative data from the interviews were coded according to major themes: awareness of the role of intellectual property education, implementation barriers, proposed solutions., etc., and analyzed using content analysis. The analysis aims to highlight recurring patterns in the participants' perspectives, thereby identifying the main trends and depth of the research problem. Typical quotes from semi-structured interviews were selected to illustrate and reinforce the qualitative conclusions.

Quantitative data from the questionnaire were processed using Excel and SPSS software. Descriptive statistics such as frequency, percentage, mean, and standard deviation (SD) were calculated to reflect an overview of the awareness and participation level of the surveyed groups. Some statistical tests, such as the Pearson correlation test, the ANOVA test, or the t-test (if appropriate), were applied to determine the relationship and statistically significant difference between the independent variables (title, age, experience, etc.) and the dependent variable (awareness, participation level, etc.).

Quantitative data is illustrated with clear tables for each survey item, ensuring visuality, ease of understanding and facilitating comparison between target groups. This presentation not only increases the persuasiveness of the research results but also supports the process of making an in-depth analysis and appropriate policy recommendations.

Ensuring integrity and reliability

The questions in the survey are designed based on an overview of international documents

from prestigious organizations such as the World Intellectual Property Organization (WIPO), the United States Patent and Trademark Office (USPTO), the Japan Patent Office (JPO), combined with domestic studies appropriate to the characteristics and context of the vocational education system in Vietnam. To ensure clarity, ease of understanding and suitability for the survey subjects, the questionnaire was piloted with 15 people to adjust the language, question structure and minimize the risk of interference or bias in the perception of respondents.

All information collected from interviews and surveys is processed on the principle of voluntariness, confidentiality and only serves scientific research purposes. The identity of the participants is not disclosed, ensuring compliance with ethical standards in social research. Data analysis is carried out objectively, honestly, without inference beyond the limits of actual data, while avoiding any manifestation of subjective bias from the researcher. This approach contributes to improving the reliability and validity of the research results.

Results

The level of integration of intellectual property content into educational activities in schools

Education plays a central role in forming legal awareness and professional ethics for students. The integration of intellectual property content (IP) into teaching and educational activities can take place through main subjects, extracurricular topics, or internal instructional documents. The objective of the survey in this section is to determine the level of popularity and systematization of intellectual property content in educational activities in colleges and secondary schools in Ho Chi Minh City, thereby assessing the level of institutionalization of this content in the current school environment.

Table 2. The level of integration of intellectual property content into educational activities (n = 234)

Order	Survey Content	1	2	3	4	5	Average
1	There is a subject or topic on intellectual property in the program	12	18	43	89	72	3.77
2	Lecturers mention intellectual property in related subjects	6	14	32	101	81	4.01
3	Students are assigned homework and research related to intellectual property	11	21	47	90	65	3.74
4	There are extracurricular activities specifically on intellectual property	18	27	56	88	45	3.52
5	The school issues internal guidelines or documents on intellectual property	24	32	58	79	41	3.41
6	There is coordination between the school and specialized agencies (Department of Science and Technology, Department of Intellectual Property, etc.)	29	35	61	72	37	3.29

Source: Authors results

From the results of Table 2, it can be seen that the level of integration of intellectual property content in education is still semi-official, unsystematic and uneven among schools. The average indexes range from 3.29 to 4.01, indicating the presence of intellectual property content in the educational environment, but have not reached the level of universality or comprehensive institutionalization. Item 2 ("Lecturers mention intellectual property in related subjects") has the highest average score of 4.01, reflecting the fact that the integration of intellectual property content into teaching is mainly based on the initiative and personal awareness of lecturers rather than on official curriculum regulations. This is reinforced by the statement of TL6: "We usually only integrate intellectual property content into lectures on entrepreneurship skills or professional ethics, but there is no official subject".

Item 1 and item 3 have an average score of 3.77 and 3.74 respectively, showing that organizing separate topics on intellectual property or assigning related exercises has begun to appear but still depends on each training sector. Lecturer TL3 said: "In the graphic design and IT sectors, intellectual property content is mandatory because students are prone to copyright infringement, while in other sectors it is often overlooked". Notably, items 4, 5 and 6 have an average score below 3.6, especially item 6 with only 3.29, showing that coordination between schools and specialized agencies on intellectual property is still limited. This reflects the absence of an interdisciplinary connection mechanism, while communication on intellectual property requires high expertise and continuous coordination. According to TL9, a manager: "We want to coordinate with the Department of Science and Technology to organize propaganda activities, but we lack information, funding and time".

Item 5, "Schools issue internal guidelines or documents on intellectual property" – only achieved 3.41, showing that most schools do not have a set of standardized documents on intellectual property. Many schools use documents compiled by lecturers themselves or taken from the Internet. This leads to the risk of inconsistency and lack of updates, as TL11 commented: "Even we do not have any specific documents on intellectual property, most of us have to learn by ourselves and share with students".

From both quantitative data and qualitative responses, it can be affirmed that although some schools have made moves to integrate intellectual property content into educational activities, this is still spontaneous, lacking a comprehensive strategy and has not been standardized. The difference in the level of implementation between training sectors and between different schools is creating a "propaganda gap" that, if not filled by a specific policy system, will cause inequality in legal awareness for students in the same vocational education system

In addition, the role of education in intellectual property propaganda needs to be viewed not only at the teaching level, but also in establishing a culture of law compliance in the school environment. This can only be done if there is a combination of schools - lecturers - authorities - mass organizations, along with standardized documents and guidance from state management levels.

Effectiveness of Education in Raising Intellectual Property Awareness and Behavior

In addition to determining the extent to which intellectual property content is integrated into the curriculum, another important aspect that needs to be examined is the actual effectiveness of educational and advocacy activities in raising awareness and forming appropriate intellectual property behavior among students. The objective of this content is to assess the perception and actual level of influence that education brings, thereby reflecting the level of success of current advocacy work as well as the factors that hinder the process of transforming knowledge into ethical and legal behavior in the school community.

Table 3. Effectiveness of Education in Raising Intellectual Property Awareness and Behavior (n = 234)

Order	Survey Content	1	2	3	4	5	Average
1	Students understand the basic concepts of intellectual property	5	13	41	97	78	3.96
2	Students know how to distinguish intellectual property violations	9	17	48	93	67	3.78
3	Students are aware of avoiding copying, plagiarism, and copyright infringement	7	18	49	89	71	3.79
4	Internal communication activities contribute to raising awareness of intellectual property	12	22	45	87	68	3.68
5	The school organizes sharing sessions on the practical handling of intellectual property violations	28	33	61	72	40	3.23

Source: Authors results

The results from Table 3 show that education has a positive impact on students' intellectual property awareness, but the transformation from awareness to behavior is still limited. Specifically, item 1 has the highest average score of 3.96, showing that most students have grasped the basic concepts of intellectual property, especially copyright, software copyright, and image copyright in the school environment. In an interview with TL4, an IT lecturer said: "Students in my major understand software copyright quite well and often ask carefully about the use of open-source software, which shows that initial awareness has been formed quite clearly".

However, items 2 and 3 related to the ability to identify violations and awareness of prevention only have an average score of 3.78 and 3.79, reflecting the fact that students have not been fully trained in critical thinking about ethics and legal behavior in the learning environment. Many students still take plagiarism lightly if it is not detected. TL12, a union officer, shared: "Even after propaganda, many students still think that reusing other people's work is okay, as long as it is edited a little. This proves that current education is still at the theoretical level, not having a strong enough impact on behavior".

Section 4 - assessing the effectiveness of internal communication activities has an average score of 3.68, showing that the impact level is only at a fairly average level. Although some schools have applied creative forms of communication such as videos, infographics, or distributing flyers on campus, most of these activities are still formal, scattered, and have not created a connection with learning activities or assessments. According to TL8, an economics lecturer: "Information about intellectual property only appears sporadically on bulletin boards, and is hardly related to the content of lessons or assessments, so students easily forget".

Notably, item 5 had the lowest average score of 3.23, reflecting the lack of practical sharing sessions on violations and legal consequences related to intellectual property. This is a serious gap in education, because practical cases have the highest persuasive and deterrent power for learners. TL7, principal of a technical college, frankly commented: "We have never invited experts or lawyers to share cases of intellectual property violations for fear of making the school environment worse. But perhaps that is a shortcoming".

From the collected and analyzed data, some important conclusions can be drawn, contributing to clarifying the research issues and orienting policy proposals or appropriate solutions in practice, specifically:

First, education is creating a relatively stable foundation for legal awareness of intellectual property in students, but it is not deep enough to transform into sustainable behavior, especially in fields not directly related to technology or creative design.

Second, intellectual property education activities are still lacking in systematization, lacking the connection between theory and practice, and not paying enough attention to case-based learning to train learners' ability to handle legal situations.

Third, qualitative results show that some educational institutions have taken a certain initiative in organizing intellectual property communication activities, but the lack of resources, expertise and direction from the policy level is hindering widespread and sustainable implementation.

Therefore, if we want to improve the effectiveness of education in building an intellectual property culture, we need to shift from purely informational education to behavioral, ethical and legal education, combining practice, simulation and interaction, with the participation of the entire ecosystem: schools, businesses and state agencies.

Stakeholders' perceptions of the role of education in intellectual property communication

In addition to assessing practical effectiveness, the study also surveyed the level of consensus and expectations of stakeholders, including managers, lecturers, students, on the role of education in intellectual property communication. This is an important basis for determining social awareness of the communication function and behavioral orientation of education, thereby reflecting the long-term development potential and sustainability of programs integrating intellectual property education in schools. Below are the results of a survey of 6 typical contents showing the perception of the educational community on this issue.

Table 4. Awareness of the role of education in intellectual property propaganda (n = 234)

Order	Survey Content	1	2	3	4	5	Average
1	Education is the most effective channel for promoting intellectual property	4	6	29	102	93	4.17
2	The role of education needs to be strengthened in promoting intellectual property	3	5	22	108	96	4.25
3	There needs to be direction from the Ministry/Sector on integrating intellectual property into education	5	7	24	97	101	4.20
4	It is necessary to train lecturers with knowledge and skills on intellectual property	3	8	19	104	100	4.23
5	Education can change intellectual property violations among students	4	7	26	100	97	4.19
6	Intellectual property needs to be integrated into the main curriculum in vocational schools	6	9	31	97	91	4.10

Source: Authors results

The survey results in Table 4 show a high and fairly even level of consensus among the target groups on the central role of education in intellectual property dissemination. All items have an average score of 4.10 or higher, demonstrating a positive, clear and consistent social awareness of the importance of education in this field.

Item 2 - "The role of education needs to be enhanced in intellectual property dissemination") achieved the highest average score of 4.25, reflecting an almost absolute consensus on the need to expand the role and upgrade the influence of education in intellectual property legal communication. This is consistent with the sharing from TL2: "In the context of widespread copyright infringement on social networks and digital platforms, only education can create a sustainable immune system from the root for learners".

Next are items 4 (4.23) and 3 (4.20), respectively affirming two key factors: training of

lecturers and direction from the Ministry/Industry level. Interview from TL14 - a lecturer of Law - affirmed: "Many teachers do not know where to start when talking about intellectual property, because they have not been properly trained. If we want to implement it in depth, we need to organize annual training for this team". At the same time, TL10, a training department officer, also emphasized: "We cannot decide to include intellectual property in the program without a directive from the Ministry or the General Department of Vocational Education".

Item 1 (4.17) shows a strong recognition that education is the most effective propaganda channel in the current context. The main reason is that education is continuous, highly pervasive, and affects both awareness and behavior in the school environment. TL1, an intellectual property expert, commented: "Propaganda in the press and on social networks can attract temporary attention, but only education can create a lasting effect and be associated with personality".

Item 5 (4.19) is also noteworthy because it shows a strong belief in the ability to transform intellectual property violations through education. However, TL5 warned: "That belief is only true when there is a systematic curriculum, a team of knowledgeable lecturers and regular assessments. If you only teach once and then stop, you cannot change behavior".

Finally, item 6 (4.10) reflects a relatively high consensus on integrating intellectual property into the main curriculum, although slightly lower than the remaining contents. This shows that there are still concerns about the feasibility of including intellectual property content in the already heavy curriculum and limited vocational training time frame. TL15, vice principal of a secondary school, shared: "We agree in principle, but if it is not considered an official subject or there is no class distribution, it will be very difficult to implement in practice".

Overall, both quantitative and qualitative data show a positive and hopeful trend: education is being seen as a long-term, fundamental and most effective strategy in communicating intellectual property laws. However, for this role to be truly promoted, there needs to be a consistent policy, synchronization from the macro level to the school, along with investment in people, content, teaching methods and monitoring mechanisms.

Difficulties and barriers in implementing intellectual property education and dissemination in vocational schools

Education and dissemination of intellectual property (IP) in vocational education institutions today not only depends on awareness and policy, but is also greatly influenced by objective and subjective factors in the implementation process. The purpose of this survey is to clearly identify practical barriers that are hindering the effectiveness of intellectual property education activities in colleges and secondary schools, in order to provide a basis for designing appropriate intervention solutions. Below is a survey table with 7 contents reflecting the most common groups of obstacles. The results are shown specifically in Table 5.

Table 5. Difficulties and barriers in implementing intellectual property education and dissemination (n = 234)

Order	Survey Content	1	2	3	4	5	Average
1	Lack of standardized documents and official curriculum on intellectual property	8	11	33	88	94	4.06
2	The teaching staff has not been trained in depth on intellectual property	5	9	29	96	95	4.14
3	There is no clear direction from the Ministry, Department or General Department on integrating intellectual property education	6	12	41	87	88	4.00

4	The school schedule is dense, lacking time for extracurricular activities or intellectual property topics	11	17	52	86	68	3.75
5	Lack of funding to organize in-depth propaganda activities	13	16	49	83	73	3.76
6	Students are not interested or take lightly the content related to intellectual property	15	22	58	79	60	3.60
7	The school does not have a specialized department or an official in charge of intellectual property	21	28	62	74	49	3.40

Source: Authors results

The results from Table 5 show that systemic barriers and implementation capacity are the biggest obstacles in organizing intellectual property education and dissemination in vocational schools. The most prominent of these is item 2, "The teaching staff has not received in-depth training on intellectual property," with an average score of 4.14, the highest in the entire table, showing a lack of professional capacity of the communicators. The interview with TL6 clearly stated: "Intellectual property content is often not within the expertise of technical lecturers. Without proper training, we only teach in a general descriptive style, which is difficult to inspire".

Item 1 (4.06) and item 3 (4.00) further confirm that the lack of official documents and guidance from educational management is a key barrier. TL9, a training manager, said: "We want to organize official intellectual property training, but without a curriculum and guidance from the General Department, we cannot include it in the curriculum". This makes current activities mostly spontaneous and unsystematic, even though the need is real.

On the practical side, items 4 and 5 achieved an average score of 3.75 and 3.76, respectively, reflecting challenges in study time and financial resources. Many vocational schools have specific technical training programs, with shift-based schedules, making it difficult to devote time to specialized or extracurricular activities on intellectual property. TL13, a mechanical engineering lecturer, shared: "We only have 2 soft skills sessions per month, so it is difficult to add topics like intellectual property without prior planning". At the same time, according to TL17, a Youth Union official: "Funding for organizing talk shows or seminars on intellectual property is almost non-existent, and without sponsorship, it is very difficult to implement in depth".

On the part of learners, item 6 recorded an average of 3.60, indicating a rather indifferent attitude or lack of proper attention to intellectual property. This may stem from the fact that students do not see the importance of intellectual property in professional life or lack of impressive practical situations. TL5, the person in charge of career guidance, commented: "Many students think that intellectual property is only related to artists or high technology, not related to themselves, so when it comes to propaganda, they pay little attention".

Notably, item 7, "The school does not have a specialized or officially responsible department for intellectual property," only scored 3.40, the lowest in the table. This reflects that the current intellectual property propaganda is still not specifically assigned, often a part-time or spontaneous activity, leading to a lack of stability and sustainability. TL11, a vice principal in charge of student affairs, said: "If there is no specialist, intellectual property activities will only stop at the movement level. There must be a clear position to be responsible for long-term monitoring and implementation".

Synthesizing the above factors, it can be affirmed that: the implementation of intellectual property education and propaganda at vocational schools is currently facing obstacles from institutions, organizations, people to learners' psychology. To overcome these barriers, it is necessary to establish a synchronous ecosystem, in which policies, programs, documents, teams and monitoring mechanisms need to be integrated and directed uniformly from the central level to educational institutions, and at the same time have a mechanism to mobilize social funding to solve financial problems.

Discussion

The research results show that education plays a central role in promoting intellectual property (IP) in colleges and secondary schools in Ho Chi Minh City. However, the implementation effectiveness is still limited by many barriers in terms of institutions, organizations, awareness and staff capacity. This discussion will further analyze the main findings, compare them with the theoretical foundation and international research, thereby drawing out arguments of academic and practical value in planning intellectual property education policies at the vocational education level.

Education is the main and sustainable channel for promoting intellectual property

One of the clear conclusions from this study is the high consensus among the survey groups on the key and sustainable role of education in intellectual property dissemination. With an average score of over 4.20 for the contents such as "Education is the most effective channel in intellectual property dissemination" and "Education can change infringing behavior", the study affirms that education is not only a tool to convey legal knowledge, but also a social institution capable of adjusting behavior through the content and methods of organizing learning.

This argument also coincides with the views of the World Intellectual Property Organization (WIPO, 2020), when affirming that "education is the foundation for creating a culture of IP respect". In addition, studies in Korea (Shin, 2000) and Japan (JPO, 2021) have also demonstrated that education has a long-term impact on building legal awareness, especially if implemented early and systematically.

However, in the context of Vietnam, intellectual property education is only at the initial level, fragmented and lacking a comprehensive policy framework. Recognizing the role of education is an important first step, but it needs to be accompanied by institutional and curriculum reforms to transform awareness into concrete actions.

Gap between awareness and behavior

The survey results show that students have a fairly good awareness of intellectual property concepts (average score 3.96), but there is still a gap in distinguishing violations (3.78) and transforming them into positive behaviors (3.79). This shows a common situation in legal education in Vietnam: knowledge is received passively, lacking practical situations, leading to the failure to form ethical and legal reflexes in practice.

This gap has also been noted by many international studies. Zhu, W. Y., and S. C. Zhang (2022) argue that learning legal knowledge is not enough to form the capacity to act, unless accompanied by situational simulation, competency-based assessment, and interaction between theory and practice.

In Vietnam, this limitation comes largely from the lack of formal intellectual property education programs, the lack of standard teaching materials, and the lack of skills of lecturers in organizing learner-centered pedagogical activities. From this, it can be seen that, without improving educational methods and building a system to support compliance behavior, the dissemination of intellectual property through education will only stop at the level of "slogan shouting", lacking depth and sustainability.

Unsynchronized organizational structure and resources are barriers to implementation

The survey data shows that the lowest scores belong to organizational factors: lack of specialized departments (3.40), lack of documents (4.06), lack of top-down direction (4.00), and lack

of funding (3.76). These figures reflect the fact that intellectual property education at vocational schools currently does not have an official operating mechanism, depending on the initiative of each individual and unit.

This is a fundamental difference between Vietnam and countries with developed intellectual property education systems. For example, in Japan, the intellectual property education program is regulated by the Ministry of Education, with specific guidelines and annual budgets for implementation from high school to university (JPO, 2021). In Korea, universities and colleges have IP Centers to support both education and the commercialization of creative results.

Therefore, if we only rely on individual lecturers or a few sporadic communication activities, we will not create a solid foundation. There needs to be a clear allocation of resources, specific assignment of responsibilities and establishment of a coordination mechanism between the school, intellectual property agency, Youth Union and enterprises.

Students are still the weak link in the system

The survey results show that the level of interest of students in intellectual property education is still relatively low, with an average score of only 3.60 on a 5-level scale. This is noteworthy because this group of students will directly participate in innovation, scientific research and start-up activities in the future. Many students said that they have never been exposed to or do not see a direct connection between intellectual property and their field of study, leading to apathy and a lack of initiative in learning and acquiring knowledge in this field.

The fact that students are less interested in intellectual property shows a significant gap between current educational content and practical needs and career orientations. If intellectual property knowledge is not integrated vividly into learning, research, production or start-up activities, it will be difficult for students to see the value of application and difficult to form learning motivation. This reduces the effectiveness of education and misses the opportunity to equip learners with an important tool to protect their creative achievements, especially in the context of a knowledge-based economy and a strong digital transformation.

From a sociological theoretical perspective, learners' knowledge acquisition depends on the compatibility between educational content and the "cultural capital" they possess. When intellectual property knowledge is imparted in an academic manner, separated from practical contexts or not linked to specific projects such as thesis writing, patent writing or entrepreneurship, learners easily view this as an abstract and difficult-to-access field. This not only reduces interest but also hinders the process of forming a positive attitude and proactive spirit in acquiring and applying knowledge about IP.

From the above analysis, it can be seen that there is an urgent need to improve intellectual property education towards a more practical and interactive direction. Activities such as organizing innovation competitions, startup programs, business simulations, or integrating IP content into projects and theses will create a dynamic learning environment, helping learners realize the practical value of IP. At the same time, connecting with businesses and science and technology organizations can also expand opportunities for practical access, helping to transform theoretical knowledge into professional skills, thereby promoting students' awareness and positive actions in this field.

The importance of policy orientation and program design

From the results of interviews and surveys, it is clear that vocational education institutions are lacking a legal framework, specific programs and official documents to implement intellectual property education. Most current activities are spontaneous or indirectly integrated into a few subjects, without a clear program distribution.

This leads to inconsistencies between schools and training sectors, and causes learners to deviate from the legal awareness standards. To overcome this, there needs to be direction from competent authorities such as the Ministry of Education and Training, the Ministry of Science & Technology (specifically the Intellectual Property Office), with the issuance of a minimum

curriculum framework, standard reference materials, and official integration regulations in the training program.

In addition, it is possible to learn from WIPO's "Education for IP Respect" model, which combines official textbooks, digital learning materials, situational simulations, and experiential learning forms to bring intellectual property content closer to learners.

Conclusion

To effectively promote the role of education in promoting intellectual property in colleges and secondary schools, the article proposes some specific recommendations as follows:

(i) Issue a framework program for intellectual property education in the vocational education system

Education and Training, in coordination with the Ministry of Science and Technology, should issue a minimum framework program for intellectual property education, which is flexibly integrated into subjects such as law, entrepreneurship, vocational skills, etc. At the same time, guide institutions to develop extracurricular topics or modules on intellectual property suitable to the specific characteristics of the training profession.

(ii) Train and foster lecturers with knowledge and pedagogical skills on intellectual property

Schools should proactively send lecturers to attend professional training courses on intellectual property (organized by the Intellectual Property Office, the Department of Science and Technology or training institutes). At the same time, it is necessary to build a core team of legal propaganda in schools, with enough capacity to organize classes, clubs and interactive activities on intellectual property with students.

(3) Establish a department or staff specializing in intellectual property education at each vocational training institution

Each school should have a focal point officially responsible for intellectual property education, which can be under the training department or the Youth Union, to coordinate activities, maintain continuity and integrate intellectual property content into curricular and extracurricular activities.

(4) Diversify forms and tools of propaganda

In addition to teaching activities, it is necessary to invest in modern communication channels such as videos, short clips, infographics, podcasts, etc. to convey information about intellectual property in a close, vivid and accessible way for learners. Creativity competitions, student projects, intellectual property festivals should also be organized periodically to create a practical environment.

(5) Strengthening interdisciplinary cooperation and socialization of intellectual property education activities

Educational institutions should cooperate with the Department of Science and Technology, the Intellectual Property Office, the Patent Association, start-up enterprises, etc. to organize seminars, talks, legal advice, instructions on copyright registration, patents, etc. Thereby helping students approach reality and have a clearer awareness of legal rights and responsibilities in creative behavior.

(6) Linking intellectual property education with assessment of learning outcomes and training

It is necessary to integrate intellectual property content into the criteria for assessing professional ethics, vocational skills and research - start-up activities of learners. Having specific measurement criteria will help learners have the motivation to comply, thereby forming the habit of behaving responsibly with intellectual property.

The study has clarified the role of education in promoting intellectual property (IP) at colleges and intermediate schools in Ho Chi Minh City, through a quantitative survey of 234 people and qualitative interviews with 17 individuals who are managers, lecturers and students. The results show that:

First, education is considered by stakeholders to be the main and most sustainable communication channel to form awareness and adjust behavior to comply with intellectual property laws in the school environment. This is a positive perception and an important premise for

designing integrated IP education programs in schools.

Second, although intellectual property content has been initially integrated into educational activities (through teaching, extracurricular activities, internal propaganda), the level of systematization and formalization is still low, mainly depending on voluntary and individual initiative. The lack of standardized documents, lack of training for lecturers and lack of direction from superior agencies are the biggest barriers in practical implementation.

Third, the survey results also show that there is a gap between learners' awareness and behavior, especially in distinguishing intellectual property violations and compliance practices in learning. This is an issue of the nature of legal education and professional ethics, requiring teaching methods to shift from imparting knowledge to training behavioral skills.

Fourth, the organizational system at the school level still lacks a specialized department, financial resources and a long-term action plan to implement intellectual property education. At the same time, the mentality of "underestimating" intellectual property issues among a segment of students reflects the reality that education is not convincing enough or not closely linked to the learning and career activities of learners. Based on the above findings, the article affirms that if we want to improve the effectiveness of intellectual property propaganda in the vocational education system, education needs to be seen as a pillar of the legal culture development strategy, instead of just a supporting tool. Intellectual property education cannot be a separate task, but needs to be designed as an organic part of the training program, with synchronous investment in content, people and organization.

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