## ISRG Journal of Arts, Humanities and Social Sciences (ISRGJAHSS)



ACCESS

OPEN



Abbreviated Key Title: ISRG J Arts Humanit Soc Sci ISSN: 2583-7672 (Online)

Journal homepage: <a href="https://isrgpublishers.com/isrgjahss">https://isrgpublishers.com/isrgjahss</a> Volume – II Issue-III (May – June) 2024

Frequency: Bimonthly



### Awareness, Competence and Extent of Compliance of Secondary School Teachers on **Intellectual Property Rights**

John Lester T. Tabian

Cagayan State University – Sanchez Mira Campus Cagayan, Philippines

| **Received:** 08.06.2024 | **Accepted:** 14.06.2024 | **Published:** 20.06.2024

\*Corresponding author: John Lester T. Tabian

Cagayan State University – Sanchez Mira Campus Cagayan, Philippines

#### **Abstract**

The advancement of digital technology has increased the risk of intellectual property (IP) theft due to the ease of accessing and replicating digital content. This study assesses the awareness, competence, and compliance with intellectual property rights (IPR) among secondary school teachers, focusing on patent, utility model, and copyright registration. A descriptive correlational research design surveyed 109 secondary school teachers from Northwestern Cagayan, selected through stratified random sampling. Data analysis involved frequency counts, percentages, means, ANOVA, and Pearson r. Results showed most respondents were aged 31-40, predominantly female, held the position of Teacher III, and earned 25,001-35,000 pesos monthly. Most had completed master's coursework, had not conducted research, had less than 10 years of experience, and lacked patents. IPR awareness was low, with limited understanding of its purpose, processes, and penalties. Competency in patent, utility model, and industrial design registration was also low. Compliance with IPR in instructional materials was moderate, varying significantly by age, teaching position, and research experience. Significant differences in IPR awareness were noted based on age and research activity, and compliance varied by age, position, and research. There was a significant association between IPR compliance and process awareness. Targeted interventions are necessary to enhance IPR awareness and compliance among teachers, suggesting a need for prioritized IP education and training in educational institutions.

Keywords: Intellectual Property Rights, Awareness, Competence, Extent of Compliance, Teachers, Secondary Schools, Philippines.

#### Introduction

In today's digital age, the ease of accessing and replicating digital content heightens the risk of intellectual property (IP) theft. Teachers invest significant time and effort into creating original research projects (Cuarto, 2019; Casyao - Doroin, 2020; Bongcayao, 2023) and instructional materials (Dantic, 2023;

Morelos, 2021) that enhance teaching and student learning. However, without adequate protection mechanisms or knowledge of IP rights, these materials are vulnerable to unauthorized use, distribution, or reproduction. With increasing research and development outputs in secondary schools in the Philippines, it is crucial to protect and recognize these as valuable intellectual properties (Tinao et al., 2018).

Despite the critical role teachers play in developing research projects and instructional materials, a research gap exists concerning the intellectual property of these works. Limited attention has been given to understanding secondary school teachers' awareness, competence, and extent of compliance with IP rights. Few studies in the country have explored topics related to IP, such as awareness among students and faculty (Tinao et al., 2018), the state of IP protection in the Philippines (Negre and Perez, 2023), and laws on IP rights infringement (Aldeguer, 2014).

Understanding teachers' awareness and competence in IP rights is crucial for addressing this gap. Assessing their familiarity with patents, utility models, industrial design, and copyright law, as well as their ability to apply this knowledge, can provide valuable insights. Exploring the reasons behind limited IP knowledge among secondary school teachers is also essential, with factors such as inadequate training programs and limited resource access potentially contributing to this gap.

By investigating the current state of secondary school teachers' awareness and competence in patent, utility model, and copyright registration, this research aims to identify specific areas needing attention and improvement. The findings will form a basis for developing targeted interventions, professional development programs, and educational resources to enhance teachers' knowledge and competence in these areas. Addressing this issue will not only increase teachers' awareness of IP rights but also foster a culture of respect for originality, creativity, and innovation within the educational community. This will empower teachers to protect their intellectual property, preserve the integrity of their work, and promote responsible use of educational resources.

This study aims to bridge the literature gap by providing detailed information on IP rights awareness, competence, and compliance among secondary school teachers, contributing to a culture of innovation, responsible IP use, and ethical practices within the educational community.

#### Theoretical Background

The present study can be better understood through the lens of Socio-Technical Systems Theory by Trist and Bamforth (1951). This theory highlights the interplay between social factors (such as the role of teachers in education) and technical systems (such as intellectual property laws and regulations). According to this framework, secondary school teachers are key actors within the educational system, responsible for creating and disseminating educational materials. Their understanding of intellectual property (IP) concepts is crucial for protecting their own creations, respecting the rights of others, and effectively utilizing IP resources.

Secondary school teachers' roles in creating and disseminating educational materials underscore the importance of their comprehension of IP concepts. This knowledge enables them to safeguard their own work, honor the rights of others, and leverage IP resources in their teaching.

Firstly, the profile of the respondents, including their educational background, professional experience, and industry sector, significantly affects their understanding and adherence to IP regulations. Individuals with higher education levels or those

working in industries with stringent IP regulations are likely to exhibit higher compliance rates.

Secondly, the level of awareness of IP rights plays a crucial role. Respondents well-informed about the importance and implications of IP rights are more likely to comply with these regulations. Awareness campaigns and educational programs can enhance this knowledge, leading to better compliance.

Thirdly, respondents' competence in patent, utility model, industrial design, and copyright registration is critical. Those with high competence in these areas are better equipped to navigate the complexities of IP compliance, including understanding the processes involved in protecting IP and recognizing the legal and financial benefits of compliance.

In summary, compliance with intellectual property rights is intricately linked to respondents' profiles, awareness levels, and competence in IP registration. Enhancing these factors through targeted education and training can significantly improve compliance rates.

#### **Literature Review**

#### **Intellectual Property Rights and its Importance**

Intellectual property rights (IPR) form a crucial legal framework designed to protect the rights of creators and promote innovation across various industries. IPR encompasses patents, utility models, and copyright registration, offering legal protection for original inventions, designs, and creative works. The importance of IPR lies in its ability to create a fair and supportive environment for creators, ensuring their efforts are recognized, rewarded, and respected.

According to Kronda (2023), IPR grants creators exclusive rights over their inventions, literary and artistic works, and designs. These rights enable creators to control and monetize their creations, providing them with incentives to continue innovating and producing original works. Monotti (2013) illustrated that the potential for obtaining patents, copyrights, and other IPR forms encourages individuals and organizations to invest in research and development, leading to advancements in various fields.

### Awareness on Intellectual Property Right among Various Stakeholders

Intellectual property rights (IPR) encompass patents, utility models, and copyright registration, providing legal protection for original inventions, designs, and creative works. Understanding the level of awareness among different stakeholders is crucial for assessing the effectiveness of IPR in promoting respect for creators' rights and fostering innovation.

Denoncourt (2023) highlights the vital role that educators and researchers play in disseminating knowledge and promoting a culture of intellectual property awareness. Educators' understanding of IPR directly influences their teaching practices and the integration of IP concepts into curricula, thereby fostering a greater appreciation and respect for intellectual property among students.

Mendis (2023) posits that students and emerging innovators are the future creators and entrepreneurs. Assessing their awareness of IPR is essential for nurturing a generation that values intellectual property rights and respects the creative efforts of others. Educating young minds about IPR can lead to a more informed and respectful approach to innovation and creativity.

Press (2017) also underscores the importance of IPR awareness among business professionals, who need to protect their inventions, designs, and brands. A lack of awareness can result in inadvertent infringement or a failure to capitalize on intellectual property assets, potentially leading to significant financial and reputational losses.

Overall, increasing IPR awareness across various stakeholder groups—educators, students, researchers, and business professionals—is essential for fostering a robust culture of innovation and respect for intellectual property. This holistic approach ensures that all parties understand the value of IPR and are equipped to navigate the complexities of protecting and leveraging intellectual property assets effectively.

## Factors Influencing Awareness of Respondents on Intellectual Property Rights

Studies by The Center for IP Understanding (2019) indicate that individuals with higher educational attainment have greater awareness of intellectual property rights (IPR). Education lays the groundwork for understanding IP concepts and their legal implications. Ong et al. (2021) found that professionals in IP-reliant industries, such as technology and creative sectors, also exhibit higher IPR awareness due to their experience with IP-related matters.

Understanding IPR awareness among different stakeholders is essential for evaluating IP frameworks and enhancing awareness strategies. This literature review highlights the impact of educational background, professional experience, and training on IPR awareness. Addressing identified gaps can help policymakers, educators, and stakeholders develop targeted interventions to improve IPR awareness.

### Level of Competence on Patent, Utility Model, Industrial Design and Copyright Registration

Patent, utility model, and copyright registration are essential for protecting inventions, designs, and creative works. Competence in these areas is crucial for evaluating the effectiveness of IP systems and identifying improvement areas. Yang (2023) details the patent drafting process, which begins with a detailed invention disclosure. Alfiani (2018) emphasizes the importance of understanding legal requirements for patentability. Chan (2021) and Ryabokon et al. (2019) highlight the need for knowledge of the utility model system and application procedures. Rivera et al. (2022) describe the steps for a successful industrial design application. InCorp Philippines (2022) defines copyright application as seeking legal protection for original works. This review underscores the significance of understanding legal prerequisites and application procedures for IP registration.

### Differences in Awareness and Competence in Intellectual Property Right and Registration

#### ChatGPT

This literature review explores differences in intellectual property rights (IPR) awareness and competence in patent, utility model, and copyright registration based on respondents' profile variables. Research by Deshpande et al. (2022) shows demographic factors like age, gender, and educational background influence IPR awareness, with younger respondents often exhibiting higher awareness due to digital media exposure. Kumar et al. (2022) found that higher educational attainment correlates with better understanding of IPR concepts.

Tam et al. (2021) revealed a positive link between higher education and increased competence in patent, utility model, and copyright registration, as education equips individuals with the skills needed for these processes. Balahadia et al. (2022) noted that professionals experienced in IP matters, such as researchers and legal practitioners, generally have higher competence in these areas.

Lwin et al. (2020) suggest that younger respondents may have higher IPR awareness but need more development in competence, while older respondents may have higher competence due to professional experience. Lee et al. (2018) observed that respondents with a science or technology background tend to be more competent in patent and utility model registration, whereas those in creative arts may have greater awareness of copyright registration.

Understanding these variances is essential for developing tailored educational initiatives. Identifying specific groups that need additional support allows policymakers and educators to enhance IPR awareness and competence effectively among diverse stakeholders.

#### **Research Methodology**

The study employed a descriptive correlational research design, allowing researchers to describe the levels of awareness, competence, and compliance among secondary school teachers regarding intellectual property rights (IPR) without manipulating these variables. This design facilitated the exploration of relationships between awareness levels and compliance. By carefully measuring these variables, researchers aimed to determine if a correlation exists between attitudes, awareness levels, and competence in specific areas of IPR.

#### **Data Collection**

#### ChatGPT

Descriptive correlational research was conducted to assess the awareness of intellectual property rights (IPR) and competence in patent, utility model, and copyright registration among secondary school teachers, as well as their extent of compliance. A sample of 109 teachers from various secondary schools in Northwestern Cagayan was selected using stratified random sampling. Data were collected through a researcher-designed questionnaire, which demonstrated a reliability index of 0.91.

The questionnaire comprised four parts: Part I captured the personal and professional profiles of the respondents. Part II focused on assessing the respondents' awareness of intellectual property rights through a multiple-choice test developed by the researcher. Part III consisted of an application-type test created by the researcher to evaluate the respondents' competence in patent, utility model, and copyright registration. Part IV gauged the extent of compliance among respondents in applying IPR principles to their instructional materials and research endeavors.

#### **Data Analysis**

Descriptive statistics such as mean, frequency counts, and percentages were utilized to describe the profile of the respondents. The mean was employed to ascertain the average levels of awareness and competence among secondary school teachers. Weighted mean analysis was utilized to accommodate the differing importance or significance of various aspects of intellectual property law. Likert scales were employed for measurement, as illustrated below.

Table 1. Descriptive Rating for the Level of Awareness towards Intellectual Property Rights

Score Range	Descriptive Value
9 – 10	Very High
7 – 8	High
5 – 6	Moderate
3 – 4	Low
1 – 2	Very Low

Table 2. Descriptive Rating for the Level of Competence towards Intellectual Property Rights

Score Range	Descriptive Value
9 – 10	Very High
7 – 8	High
5 – 6	Moderate
3 – 4	Low
1 – 2	Very Low

Table 3. Descriptive Rating for the Extent of Compliance of the Respondents towards Intellectual Property Rights

Range	<b>Descriptive Value</b>	Transpose Value
3.26 – 4.00	Always	High
2.51 – 3.25	Sometimes	Moderate
1.76 - 2.50	Rarely	Low
1.0 – 1.75	Never	Very Low

A one-way analysis of variance (ANOVA) was employed to assess variability in the levels of awareness, competence, and implementation of IPR among the respondents when grouped according to profile variables, with a significance level set at 0.05.

Pearson's product-moment correlation coefficient was utilized to examine the relationship between the level of awareness and extent of compliance, with significance levels set at 0.05 and 0.01.

### **Discussion of Findings**

#### 1. Profile of the Respondents

As observed in Table 4, the majority of respondents are aged between 31 and 40 years (37.7%), identify as female (65.1%), and hold the position of Teacher III (50%). A monthly income ranging from 25,001 to 35,000 pesos is earned by 92.5% of the participants. In terms of education, 45.3% have completed master's level coursework, with Filipino being the most common field of study, representing 30.2% of respondents. Approximately 68.9% have not conducted any research, and the majority have less than 10 years of experience (67%). Furthermore, 92.5% of individuals do not hold patents or similar achievements, while 89.6% have not attended intellectual property rights seminars. Only 0.9% are

affiliated with organizations related to intellectual property rights. The mean age is 36.55 years, mean monthly income is 31,320.75 pesos, mean duration of service is 8.44 years, mean research completion average is 0.42, mean average of patents/utility models/copyrights is 0.08, and mean seminar attendance average is

Table 4. Frequency and percentage distribution of the profile of

the respondents					
	Profile	Frequency	7	Percentage	
a.	a. Personal				
	21 – 30		37		34.9 %
	31 – 40	31 – 40			37.7 %
4.00	41 – 50		22		20.8 %
Age	51 – 60		5		4.7 %
	61 & above		2	$\prod$	1.9 %
	N	1ean	- 36.55	_	
Sex	Male	$\prod_{\underline{}}$	37		34.9 %
Sex	Female		69		65.1 %
	Teacher – I	<u> </u>	28		26.4 %
	Teacher – II		17		16 %
	Teacher – III		53		50 %
Teaching Position	Head Teacher – I	<u> </u>	1		0.9 %
• • •	Head Teacher – III	<u> </u>	1	1 0.9 %	
	Master Teacher – I	T_	4	_	3.8 %
	Master Teacher – II	T_	2	_	1.9 %
	25,001 – 35,000	T	98		92.5 %
Monthly	35,001 – 45,000	<u> </u>	2		1.9 %
Income	45,001 – Above	T_	6	_	5.7 %
Mean –			31,320.75	_	
	b. Profess	siona	ıl	_	
	College Graduate		27	_	25.5 %
II: about	With Master's Units		48		45.3 %
Highest Educationa Attainment	Graduata		25		23.6 %
	With Doctorate Units		2		1.9 %
	Doctorate Graduate		4	_	3.8 %
	English		18		17 %
Field of	Filipino		32		30.2 %
Discipline	Mathematics		30 28.3 %		28.3 %
	Science		17 1		16 %

	Social Science	9	8.5 %		
	0		68.9 %		
	1	25	23.6 %		
Number of	2	6	5.7 %		
Completed Research	3	1	0.9 %		
	5	1	0.9 %		
		Mean – 0.42			
	Less than a year	2	1.9 %		
	1 – 5	39	36.8 %		
	6 – 10	32	30.2 %		
Length of	11 – 15	16	15.1 %		
Service	16 – 20	16	15.1 %		
	21 years & above	1	0.9 %		
	Mean – 8.44				
Number of	0	98	92.5 %		
patent/utilit y model/	1	7	6.6 %		
industrial	2	1	0.9 %		
design/ copyright		Mean – 0.08			
Number of	0	89.6 %			
seminars attended	1	10	9.4 %		
along	2	1	0.9 %		
intellectual property rights	Mean – 0.14				
Membershi p in an Organizatio n along IPR	Research	1 (very insignificant)	0.9 %		

### 2. Respondents' Level of Awareness on the Intellectual Property Rights

The findings presented in Table 5 indicate a notably low level of awareness regarding intellectual property rights (IPR) among the respondents, particularly in several key aspects. Specifically, the average scores for understanding the purpose of IPR, awareness of the process, and knowledge of penalty provisions were 4.02, 3.43, and 3.22, respectively. The overall average awareness level of 3.56 suggests a classification of "low".

These results underscore a significant lack of understanding among respondents regarding essential elements of IPR. The particularly concerning lack of awareness regarding the purpose of IPR implies that many respondents may not grasp the fundamental rationale for protecting intellectual property. Furthermore, insufficient knowledge of the procedures associated with IPR safeguarding suggests a potential unawareness of the necessary means to legally protect their creations.

Existing literature underscores the critical importance of IPR awareness. Research by Balahadia et al. (2022) highlights that enhancing awareness and understanding of intellectual property rights can greatly contribute to safeguarding innovations and creative works, thereby promoting a more robust intellectual property landscape. Similarly, Mahmoud (2022) stresses the significance of comprehensive education on IPR to bridge knowledge gaps and enable individuals and organizations to effectively leverage and safeguard their intellectual property rights.

Table 5. Over-all respondents' level of awareness on the intellectual property rights.

In terms of	Frequency	Descriptive Value
Purpose	4.02	Low
Process	3.43	Low
Penalty Provision	3.22	Low
Mean – 3.56		Low

### 3. Respondents' Competence on Intellectual Property Rights

Data from Table 6 suggests that the respondents exhibit a generally low level of competence across various aspects of intellectual property rights (IPR). Specifically, the average competency levels for patent registration (3.49), utility model registration (3.22), industrial design registration (3.39), and copyright registration (3.58) all fall within the extremely poor category. The overall average competency level across these domains is 3.56, indicating a low level of competence overall.

These findings highlight a widespread lack of competency among respondents in crucial components of intellectual property rights. The consistently low competency levels suggest a deficiency in the necessary skills and knowledge required to effectively navigate the processes and legal frameworks essential for protecting intellectual property. Insufficient competency in IPR can lead to inadequate protection of intellectual property, leaving individuals and organizations vulnerable to risks such as unauthorized use, imitation, and infringement.

In a study by Balahadia et al. (2022), the utilization of IPR by teachers was examined, revealing that many instructors refrain from utilizing the patent system due to limited knowledge and perceived complexity of the process.

Table 6. Over-all respondents' level of competence on intellectual property rights.

In terms of	Mean	Descriptive Value
Patent registration	3.49	Low
Utility model registration	3.22	Low
Industrial design registration	3.39	Low
Copyright	3.58	

registration		
Mean –	3.56	Low

### 4. Respondents' Extent of Compliance on Intellectual Property Rights

Table 7 serves as a comprehensive overview of respondents' adherence to intellectual property rights (IPR) concerning instructional materials and research activities. Results reveal a nuanced perspective on the extent of compliance observed among respondents. While the composite mean of 3.20 suggests a moderate level of compliance, variations are evident across different indicators. These findings highlight potential gaps in knowledge or implementation of proper documentation procedures, essential for ensuring transparency and accountability in intellectual property usage.

These results align with existing literature emphasizing the importance of acknowledging and respecting copyright laws to foster innovation and uphold academic integrity (Hossain et al., 2024). Studies stress the significance of clear documentation practices to maintain transparency and accountability in intellectual property use (Lunyachek & Luban, 2018).

Overall, respondents demonstrate a moderate level of compliance with an overall mean of 3.23, indicating a fair and equitable approach to intellectual property rights concepts. However, this moderate compliance suggests potential shortcomings in awareness or understanding of IPR laws and regulations. Promoting integrity in research, including adherence to IPR, is crucial for maintaining public trust in scientific endeavors (Muehlfeld & Wang, 2022).

Table 7. Respondents' extent of compliance on intellectual property rights along instructional materials and researches.

Indicators	Mean	Descriptive Value	Transpose Value
Instructional materials	3.20	Sometimes	Moderate
Researches	3.25	Sometimes	Moderate
Overall	3.23	Sometimes	Moderate

#### Comparison on the Level of Awareness, Level of Competence and Extent of Compliance of the Respondents when Grouped according to Profile Variables

Table 8 reveals significant variations in the level of awareness concerning intellectual property rights (IPR) based on respondents' age and the number of research studies they have completed. The

obtained p-values of 0.038 and 0.005, falling below the respective significance levels of 0.05 and 0.01, indicate that both age and research experience significantly influence respondents' awareness of IPR

The impact of age on IPR awareness likely stems from the cumulative effects of life experiences and occupational exposure over time. Older individuals have likely encountered situations where IPR is relevant, whether through formal education, professional practice, or personal interest. This suggests a need for educational institutions to prioritize IPR awareness in the professional development of teachers, particularly younger individuals. Souminen et al. (2023) support this perspective, as studies suggest that knowledge and understanding of legal and regulatory systems, including IPR, tend to improve with age and experience.

Similarly, the level of IPR awareness is influenced by the number of research studies completed. Engaging in research necessitates a thorough understanding of IPR to protect one's work and recognize the contributions of others. Existing research, such as that by Jena et al. (2023), indicates that active involvement in research activities significantly enhances awareness of intellectual property rights.

Furthermore, compliance with IPR varies significantly based on age, teaching position, and the number of research studies completed, as evidenced by p-values of 0.015, 0.016, and 0.000, respectively. These factors play crucial roles in shaping individuals' behaviors regarding IPR compliance.

Age-related differences in IPR compliance may stem from the accumulation of experience and maturity over time. Older individuals are more likely to have encountered various IPR issues throughout their careers, leading to a deeper understanding and adherence to IPR legislation and ethical standards. Princewill and Emotongha (2021) support this notion, emphasizing that older individuals often exhibit enhanced professional ethics and compliance due to their extensive experience and adherence to professional norms.

Teaching position also plays a significant role in ensuring IPR compliance. Educators frequently engage in creating, using, and distributing intellectual materials, making them acutely aware of IPR considerations. They are tasked with adhering closely to IPR standards to set a positive example for their students and uphold academic integrity, as suggested by Kravchuk (2021).

Moreover, the number of research studies completed is a crucial determinant of IPR compliance. Researchers involved in multiple projects are likely to encounter various aspects of IPR, including copyright, patents, and plagiarism concerns, necessitating a comprehensive understanding of these regulations and diligent compliance to maintain the originality and integrity of their work.

Profile	Level of Aw	vareness	Level of Competence		Extent of Compliance		
	t- value	P- value	t- value	P- value	t- value	P- value	
Sex	0.111	0.841	0.328	0.570	0.385	0.536	
Profile	F- value	P- value	F- value	P- value	F- value	P- value	
Age	1.68*	0.038	1.520	0.077	1.891*	0.015	
Teaching Position	1.743	0.119	2.103	0.060	2.766*	0.016	
Monthly income	0.483	0.696	0.943	0.428	0.727	0.486	

Highest educational attainment  Field of discipline  Length of service  Number of completed research  Number of Patent/UM/ Industrial Design/ Copyright  Number of seminars attended  *-Significant @.05	1.658	0.165	0.894	0.493	0.268	0.898
Field of discipline	2.859	0.027	1.808	0.133	0.555	0.696
Length of service	0.672	0.842	0.704	0.812	0.658	0.856
Number of completed research	4.025**	0.005	1.784	0.138	7.747**	0.000
Number of Patent/UM/ Industrial Design/ Copyright	0.992	0.374	0.988	0.376	2.477	0.089
Number of seminars attended	0.645	0.527	1.194	0.307	1.432	0.244
*-Significant @.05	**-Signif	icant @.01				

# 6. Association between the Extent of Compliance and Level of Awareness of the Respondents on Intellectual Property Rights

Table 9 indicates a significant association between the extent of compliance and the level of awareness regarding IPR processes, evidenced by a p-value of 0.027, which is below the 0.05 significance level. This suggests that individuals with higher awareness of IPR processes are more likely to comply with IPR regulations. Being well-informed about IPR processes increases the likelihood of adherence to these regulations, helping individuals avoid legal repercussions and ethical breaches.

These findings have important implications for policymakers, educational institutions, and professional organizations. Efforts to increase public and professional awareness of IPR processes can effectively enhance compliance. Studies by Sharma et al. (2022) and Muehlfeld and Wang (2022) underscore that comprehensive training and clear communication about IPR processes can significantly improve compliance rates by better equipping individuals to navigate the complexities of intellectual property laws.

Table 9. Association between the extent of compliance and level of awareness of the respondents on intellectual property rights.

Variables	r – value	p - value	Remarks
Purpose	0.048	0.626	Not Significant
Process	0.215*	0.027	Significant
Penalty Provisions	0.004	0.965	Not Significant

<sup>\*-</sup>Significant @.05

#### **Conclusion**

Based on the hypotheses and findings, several conclusions were made. The demographic and professional profile of the respondents indicates that most are female with a moderate level of education and experience, yet they have limited involvement in research, intellectual property achievements, and affiliations with relevant organizations. The respondents exhibit a very low level of awareness regarding various aspects of IPR, highlighting the need

for educational programs to enhance their understanding. Furthermore, the extremely low competency levels in different areas of IPR registration among respondents point to a critical need for targeted training programs to improve their intellectual property management skills. Although there is a generally moderate level of compliance with intellectual property rights among respondents, variations exist across different compliance markers, indicating mixed adherence to IPR principles in instructional materials. Significant differences in the level of IPR awareness are observed based on age and the number of research projects completed. Additionally, significant differences in IPR compliance are found with respect to age, teaching position, and the number of research projects completed. Notably, a significant association exists between the extent of compliance and the level of awareness regarding IPR processes, suggesting that higher awareness leads to better compliance with IPR regulations.

#### **Recommendations**

In connection with the findings and the conclusions, the following recommendations are offered:

The schools may develop and implement comprehensive IPR programs that include tailored awareness sessions for different age groups, practical workshops focused on current research activities, and integrated training sessions that simultaneously address awareness and compliance, emphasizing the importance of understanding IPR processes and their relevance to everyday academic and research activities.

The schools may create policies and compliance programs that consider the teaching positions of the faculty. Tailoring these programs to specific teaching positions ensures that all faculty members, whether they are early-career educators or seasoned professors, receive relevant and appropriate training.

The school may implement a system to track compliance rates among different age groups, teaching positions, and researchers with varying numbers of completed studies. Implementing a system to track compliance rates across different demographics and professional roles enables the school to identify specific areas needing improvement.

#### **Declaration of no conflict of interest**

The author hereby declares no conflict of interest and this article is his original work.

#### Acknowledgment

The researcher would like to thank all those who contributed for the completion of this study.

#### References

- Aldeguer, C. (2014). Laws on infringement of Intellectual Property Rights, Philippines. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2481803
- Alfiani, R. (2018). Legal Registration Aspect Copyright and Patent. https://doi.org/10.31219/osf.io/uxvmt
- Balahadia, F., Fiscal, R., Olayta, J., Pablo, M., Valmote, M., & Eamp; Ganibo, J. A. (2022). University students' awareness on Intellectual Property Rights. *International Journal of Academe and Industry Research*, 3(3), 28–42. https://doi.org/10.53378/352910
- Casyao Doroin, J. (2020). Project smile with a heart: Cultivating action researches in the Schools Division Office of DepEd Camarines Sur, Philippines. *JPAIR Institutional Research*, 14(1), 34–45. https://doi.org/10.7719/irj.v14i1.800
- The Center for IP Understanding. (2019). The center for IP understanding. http://www.understandingip.org/wpcontent/uploads/2019/03/IP-Awareness-and-Attitudes.pdf
- Chan, J. G. (2021). Rules and regulations on utility models and industrial designs. Rules and regulations implementing the intellectual property code - chan robles virtual law library. https://chanrobles.com/utilitymodelspart1.htm
- Cuarto, P. (2019). Project smarter as an intervention towards intensifying action research competencies of Basic Education Teachers. *JPAIR Multidisciplinary Research*, 35(1), 36–53. https://doi.org/10.7719/jpair.v35i1.648
- Dantic, M. J. (2023). Development and validation of instructional material in astronomy. International Journal of Multidisciplinary: Applied Business and Education Research, 4(1), 19–26. https://doi.org/10.11594/ijmaber.04.01.03
- Denoncourt, J. (2023). Integrating Sustainable Development Awareness in intellectual property law education. Teaching Intellectual Property Law, 154–175. https://doi.org/10.4337/9781800881006.00019
- Deshpande, A., Ankola, A., Sankeshwari, R., Jalihal, S., Kabra, L., Bhat, D., & D., Choudhury, A. (2022).
   Assessment of knowledge and awareness regarding intellectual property rights among the health-care professionals in Belagavi City: A cross-sectional study.
   Journal of Education and Health Promotion, 11(1), 211. https://doi.org/10.4103/jehp.jehp\_967\_21
- 11. He, Q. (2019). The limits to law: How intellectual properties are used and protected in chinese industries. Asian Journal of Law and Society, 7(2), 369–402. https://doi.org/10.1017/als.2018.43
- 12. Hossain, Z., Çelik, Ö., & Hertel, C. (2024). Academic integrity and copyright literacy policy and instruction in

- K-12 schools: A global study from the perspective of School Library Professionals. *International Journal for Educational Integrity*, 20(1). https://doi.org/10.1007/s40979-024-00150-x
- 13. InCorp Philippines. (2022, October 13). How to register for intellectual property in the Philippines. InCorp Philippines. https://kittelsoncarpo.com/intellectual-property-philippines/
- Ivanov, L. A., & Damp; Muminova, S. R. (2016). The review of patents for inventions, utility models, industrial models. Nanotechnologies in Construction: A Scientific Internet-Journal, 8(2), 52–70. https://doi.org/10.15828/2075-8545-2016-8-2-52-70
- 15. Jena, S., Kumar, G., Jha, K., & Singh, A. (2023). Assessment of knowledge, attitude, and practice regarding intellectual property rights among medical, dental, and nursing professionals in a tertiary institution in Bhubaneswar City, odisha: A cross-sectional survey. *Journal of Education and Health Promotion*, 12(1), 173. https://doi.org/10.4103/jehp.jehp\_1342\_22
- Kronda, O. (2023). Protecting intellectual property rights from unfair competition in Ukraine. Competition and Intellectual Property Law in Ukraine, 255–277. https://doi.org/10.1007/978-3-662-66101-7\_11
- Kravchuk, N. (2021). Technology of Competence Formation in the field of protection and protection of teachers 'intellectual property rights in the process of qualification improvement. The sources of pedagogical skills, (26), 120–131. https://doi.org/10.33989/2075-146x.2020.26.227560
- 18. Mahmoud, A. (2022). Awareness of intellectual property rights among faculty members and their assistants at South Valley University in Qena. *International Journal of Library and Information Sciences*, 0(0), 0–0. https://doi.org/10.21608/ijlis.2022.111302.1126
- Mendis, D. (2023). Collaborative Intellectual Property Learning: Law and Design-engineering students bring IP Law to Life. Teaching Intellectual Property Law, 206– 219. https://doi.org/10.4337/9781800881006.00023
- Monotti, A. L. (2013). Innovation through the lens of intellectual property law: Rights in employee inventions.
   Business Innovation and the Law. https://doi.org/10.4337/9781781001622.00010
- 21. Morelos, R. L. (2021). Development and validation of Learning Resource Materials in upgrading comprehension skills of senior high school students. International Journal of Multidisciplinary: *Applied Business and Education Research*, 2(2), 153–161. https://doi.org/10.11594/ijmaber.02.02.10
- 22. Muehlfeld, K., & Wang, M. (2022). Intellectual property rights in China—a literature review on the public's perspective. *Frontiers in Sociology*, 7. https://doi.org/10.3389/fsoc.2022.793165
- 23. Ong, H.-B., Yoong, Y.-J., & Drys, Sivasubramaniam, B. (2012). Intellectual property rights (IPR) awareness among undergraduate students. Corporate Ownership and

- Control, 10(1), 711–714. https://doi.org/10.22495/cocv10i1c7art7
- O'Sullivan, S., Friebe, M., Tonti, W. R., Hartnett, M., Castro, M., Pozzo, M. I., & Disiam, Y. (2020). Surveyed impact of intellectual property training in STEM Education on innovation, research, and development. *The Journal of World Intellectual Property*, 23(5–6), 658–678. https://doi.org/10.1111/jwip.12167
- Press, T. (2017). 1. introduction to intellectual property and common themes. Intellectual Property Law Concentrate. https://doi.org/10.1093/he/9780198803881.003.0001
- 26. Rivera, B. P., Barredo, C. A. L., & Drivera, B. P., Barredo, C. A. L., & Drivera, E. R. (2022, October 6). How to protect your industrial design in the Philippines. MIP. https://www.managingip.com/article/2a5czxnmoh736hzztci68/how-to-protect-your-industrial-design-in-the-philippines
- Ryabokon', M. S., Skuybin, B. G., Sorokin, D. L., & Samp; Galkin, N. K. (2019). Registration of patents for inventions and utility models by students of Higher Educational Institutions. *Journal of Physics: Conference Series*, 1348(1), 012049. https://doi.org/10.1088/1742-6596/1348/1/012049
- Savytskyi, M. V., yevsieieva, H. P., & babenko, V. A. (2021). Compliance with intellectual property rights in Higher Education Institutions of ukraine as an important factor of academic integrity. *Ukrainian Journal of Civil Engineering and Architecture*, (2), 138–147. https://doi.org/10.30838/j.bpsacea.2312.270421.138.761
- Suominen, A., Deschryvere, M., & Narayan, R. (2023).
   Uncovering value through exploration of barriers a perspective on intellectual property rights in a national innovation system. *Technovation*, 123, 102719. https://doi.org/10.1016/j.technovation.2023.102719
- Tam, L. T., Thai, H. D., Hai, P. T., Tuan, T. D., & D., & Samp; Thanh, T. C. (2021). The level of perception, awareness, and behavior on Intellectual Property Protection: A Study of the emerging country. *Journal of Governance and Regulation*, 10(1), 29–34. https://doi.org/10.22495/jgrv10i1art3
- Tinao, E. S., Ibaňez, A. D., Rivera, C. G., Rivera, A. P., Enriquez, C. S., & De Jesus, A. O. (2018). Taking intellectual property rights seriously: Are we in or out? (phase 1: Intellectual property awareness among students and faculty: Tracking changing attitudes and awareness). 
   KnE Social Sciences, 3(6), 325. https://doi.org/10.18502/kss.v3i6.2390
- Yang, J. (2023, January 11). Patent Drafting Process.
   Top-Rated Orange County Patent Lawyer | Helping Inventors in Orange County, Los Angeles County & CA.
   Beyond | OC Patent Lawyer, Irvine CA.
   https://ocpatentlawyer.com/steps-patent-process/