A STUDY ON CORRELATION BETWEEN NEW MEDIA LITERACY AND INNOVATION ABILITY FOR UNDERGRADUATE STUDENTS AT C UNIVERSITY IN SHANDONG, CHINA

Yueying Yang [1*]

[1] Graduate School, Stamford International University of Thailand

[*] **Corresponding Author, E-mail**: Yueying. Y@qq.com

Abstract: This study aimed to explore the relationship between new media literacy and innovation ability among students at C university in Shandong and analyze the variations in students' new media literacy and innovation ability across different background variables. A questionnaire survey method was employed to collect 300 valid questionnaires from C university in Shandong, China. Descriptive statistics, independent-samples t-tests, one-way analysis of variance (ANOVA), and Pearson correlation analysis were used to conduct quantitative analysis and comparative research on students' new media literacy and innovation ability. The research findings were as follows: (1) Students at C university in Shandong exhibit relatively high levels of both new media literacy and innovation ability. (2) In terms of gender, female students scored significantly higher than male students across all dimensions of new media literacy, whereas no significant gender difference was observed in innovation ability. Regarding grade level, a notable disparity in innovation ability was identified, with senior students outperforming their junior peers. However, no significant differences were detected in new media literacy and innovation ability based on students' majors or whether they were only children. (3) A positive correlation was found between new media literacy and innovation ability, albeit a weak one that did not reach statistical significance. The study recommends that universities facilitate the profound integration of new media literacy and innovation education in curriculum design and talent cultivation, reinforce the construction of practical platforms, and pay attention to individual differences among students, thereby enhancing their comprehensive qualities and innovation abilities.

Keywords: New Media Literacy, Innovation Ability, C university in Shandong

Introduction

1. Research Background

Against the backdrop of China's endeavors to advance the construction of a high-quality education system and implement the Digital China Strategy, new media literacy has emerged as a pivotal indicator for assessing students' comprehensive qualities and innovation capabilities (Liu et al.,

2021). As a conduit for information dissemination in the new era, new media profoundly influences the cognitive patterns, thinking modalities, and innovative behaviors of contemporary college students. Their proficiency in new media literacy is directly linked to the cultivation of youth capabilities amid the nation's strategic transformation. According to the 53rd Statistical Report on Internet Development in China, as of December 2023, the number of Internet users in China reached 1.092 billion, with college students constituting a major force in new media usage (Qi, 2023). Being "digital natives," the development of students' media literacy and innovative consciousness directly impacts the optimization of local talent structures and the construction of regional innovation systems. Currently, private college students exhibit notable deficiencies in information discernment, critical thinking skills, and media ethics. Among private undergraduate students in Shandong, only 39.6% of respondents could accurately identify online rumors, while over 60% relied on short video platforms for information acquisition, lacking systematic information filtering and integration capabilities. Regarding innovation ability, the 2023 Annual Report on the Employment Quality of Graduates from Colleges and Universities in Shandong Province revealed that less than 15% of students participated in scientific research projects, entrepreneurship initiatives, or innovation competitions, indicating a developmental bottleneck in enhancing the innovative consciousness and capabilities of private college students (Zhu, 2023). Driven by the demands of national strategic imperatives, aspirations to enhance the educational quality of private colleges, and the individual growth needs of students, delving into the relationship between new media literacy and innovation ability among students at C university in Shandong holds significant practical urgency and theoretical value.

The new generation of college students, predominantly born in the digital age characterized by rapid technological advancements, are quintessential "digital natives" who heavily rely on new media for information acquisition, opinion expression, and social networking in their daily lives (Buckingham, 2020). However, the widespread use of technology does not necessarily equate to elevated literacy levels. Many students lack the ability to discern the authenticity of information, have a vague understanding of media ethics boundaries, and even succumb to cognitive inertia in an information-overloaded environment, lacking in-depth thinking and innovative motivation. This situation contradicts the innovation-oriented talent cultivation objectives emphasized by contemporary universities and exposes deficiencies in the collaborative mechanisms for fostering new media literacy and innovation capabilities within higher-education institutions (Radovanović et al., 2020).

Therefore, propelled by the confluence of national strategic imperatives, aspirations to enhance the educational quality of private colleges, and the individual growth needs of students, exploring the relationship between new media literacy and innovation ability among students at C university in Shandong holds significant practical urgency and theoretical value. As a major province in terms of higher education resources, Shandong boasts a substantial number of private colleges, rendering it typical and representative. This study contributes to elucidating the intrinsic mechanisms through which

new media literacy influences college students' innovation capabilities and provides a practical basis for universities to formulate precise educational intervention strategies, thereby more effectively serving the implementation of local economic transformation and the national innovation-driven development strategy.

2. Research Problems

(1) What is the current state of new media literacy among students at C university in Shandong?

(2) What is the current state of innovation ability among students at C university in Shandong?

(3) Are there any disparities in new media literacy among students at C university in Shandong across different background variables?

(4) Are there any disparities in innovation ability among students at C university in Shandong across different background variables?

(5) Is there a correlation between new media literacy and innovation ability among students at C university in Shandong?

3. Research Significance

This study contributes to a deeper understanding of the connotations and extensions of the two core concepts: "new media literacy" and "innovation ability." By delineating dimensions of new media literacy, including information acquisition, critical analysis, media creation, and critical creation, this research endeavors to construct an explanatory and empirically grounded measurement framework, offering theoretical support and structural model references for subsequent studies. By incorporating demographic variables as confounding factors and comparative bases, this study provides a multifaceted perspective for elucidating influencing pathways. It attempts to establish a systematic association between new media literacy and innovation ability, thereby bridging the theoretical gap between digital literacy research and higher education innovation talent research.

By clarifying the specific pathways through which new media literacy influences innovation ability, this study offers practical references for private colleges to construct innovation education mechanisms within the new media environment. By implementing innovative practice projects based on digital platforms, introducing cross-media creation courses, or reinforcing critical information literacy training, students' comprehensive innovation abilities can be effectively enhanced. The research findings will help students enhance their awareness of the relationship between their media behaviors and innovation abilities, fostering greater initiative and goal-orientation in media usage.

Research Objectives

(1) To ascertain the current state of new media literacy among students at C university in Shandong.

(2) To ascertain the current state of innovation ability among students at C university in Shandong.

(3) To investigate the disparities in new media literacy among students at C university in Shandong across different background variables.

(4) To investigate the disparities in innovation ability among students at C university in Shandong across different background variables.

(5) To explore the relationship between new media literacy and innovation ability among students at C university in Shandong.

Literatures Review

1. The Concept of Students' New Media Literacy

The concept of college students' new media literacy has been explored by academia amidst the continuous evolution of the new media environment (Chin & Zanuddin, 2024). New media literacy represents a sophisticated competence, emphasizing not only basic technical operational skills but also the ability to critically analyze and reflect on information encountered through new media (Orhan, 2023). It encompasses four dimensions: information processing capability, media critique proficiency, technical operational aptitude, and content creation ability (Okela 2023). The definition of college students' new media literacy spans multiple facets, including information acquisition, critical analysis, media creation, and critical composition. It pertains to students' proficiency in utilizing new media tools, rationally and critically analyzing information in daily life, creating meaningful content, and playing an active social role on social media platforms (Yang et al., 2023). As the new media landscape continues to transform, the connotations and extensions of college students' new media literacy are constantly enriched and expanded.

2. Measurement Research on Students' New Media Literacy

The Five-Component Model of Media and Information Literacy is widely adopted and encompasses five core competencies: access, analysis, evaluation, creation, and participation (Li, 2024). The assessment of new media literacy should incorporate three categories of indicators: behavioral habits, psychological attitudes, and skill mastery (Orhan 2023). Based on the media exposure characteristics of Chinese college students, scholars have constructed a four-dimensional measurement model emphasizing the balance between information skills and critical thinking, which includes information acquisition, media analysis, media creation, and media critique (Chin & Zanuddin, 2024). Koc and Barut (2016) developed the New Media Literacy Scale (NMLS) for college students. This scale comprises four dimensions—information acquisition, critical analysis, media creation, and critical composition—with 35 items. The NMLS developed by Koc and Barut (2016) is widely applied. Therefore, this study selected the NMLS as the measurement instrument for assessing college students' new media literacy.

3. Research on Disparities in Students' New Media Literacy Across Different Demographic Background Variables

In studies examining disparities in college students' new media literacy, the impact of various demographic variables has been a focal point for researchers. Existing literature indicates that variables such as gender (Li, 2023), grade level (Toquero, 2022), major (Li, 2023), age (Okela, 2023), and family socioeconomic background exert varying degrees of influence on college students' new media literacy levels. Different demographic variables exhibit structural and differential impacts on college students' new media literacy, which are closely related to their social experiences, educational backgrounds, and media exposure patterns. Relevant research has revealed the distribution characteristics of new media literacy among college students, providing empirical evidence and theoretical support for subsequent pedagogical interventions and stratified cultivation strategies (Liu et al., 2021).

4. Conceptual Research on Students' Innovation Ability

Student innovation ability refers to a comprehensive competence that enables students to generate unique ideas, drive innovation, and willingly undertake certain risks when confronted with problems or challenges (Ha & Van Ly, 2025). It encompasses the mobilization of cognitive resources, support from emotional motivation, and self-regulation in social contexts (Quach & Do, 2022). Innovation ability is a core indicator of higher education outcomes and includes three dimensions: innovation consciousness, innovative thinking, and innovative practice (Julizal et al., 2021). College students' innovation ability should encompass three aspects: First, the cognitive dimension, which pertains to an individual's capacity to propose original ideas in novel situations. Second, the motivational dimension involves the willingness and perseverance to pursue novel solutions. Third, the behavioral dimension (Donoghue et al., 2021). This ability should not be confined to scientific research innovation but should also encompass various domains, such as daily learning, social participation, and technological practice.

5. Measurement Research on Students' Innovation Ability

College students' innovation ability is delineated into multiple interrelated sub-dimensions (Kim, 2011). The most prevalent three-dimensional model comprises innovation consciousness, thinking, and behavior. The assessment scale for college students' innovation ability divides innovation ability into five specific dimensions: problem discovery ability, information integration ability, solution generation ability, implementation ability, and innovation context adaptability (Karwowski et al., 2020). The College Students' Creativity Tendency Scale, tailored to Chinese educational policy requirements, sets evaluation dimensions such as adaptive, technological, and social innovation that align with the Chinese context, and its reliability and validity have been verified through large-sample testing (Ha & Van Ly, 2025). Selznick and Mayhew (2017) posited that student innovation ability refers to a comprehensive competence that enables students to generate unique ideas, drive innovation, and willingly undertake certain risks when faced with problems or challenges. The scale developed by Selznick and Mayhew (2017) encompasses three dimensions: creative cognition, innovation willingness, and risk tolerance, with 15 items. Currently, this scale is widely used to measure students'

innovation ability. Research on measuring the innovation ability of college students is transitioning from a singular, static structure to a dynamic, multidimensional integrated assessment approach.

6. Research on Disparities in Students' Innovation Ability Across Different Demographic Background Variables

Empirical research on the innovation ability of college students indicates statistically significant differences in the compositional dimensions and manifestation pathways of innovation ability among students with varying demographic backgrounds, influenced by a combination of factors such as educational environment, growth experiences, and cognitive habits (Acar, 2022). As students' progress through higher grades, their innovative thinking and practical execution abilities gradually strengthen, demonstrating a higher level of comprehensive innovation (Dumitru Vălcan, 2024). Through questionnaire data analysis of students from different majors, scholars have found that art students exhibit active performance in creative expression, whereas management students excel in proposing innovative solutions in real-world contexts (Ha & Van Ly, 2025). The differential impact of different demographic background variables on the innovation ability of college students' manifests in three characteristics: structural, dynamic, and interactive. These differences are constrained by individual student factors and shaped by the combined effects of educational structure and social environment (Karwowski et al., 2020).

7. Research on the Relationship Between Students' New Media Literacy and Innovation Ability

There is a close association between new media literacy and students' innovation ability. Information acquisition and processing abilities, as fundamental components of new media literacy, provide essential tools for students to comprehend, reorganize, and integrate multi-source knowledge resources, a process that constitutes a key pathway for innovative thinking (Kim & Kim, 2022). With the lowered participation thresholds of short-video platforms, graphic platforms, and blog creation, an increasing number of students express their viewpoints and create content through new media platforms, with this practice serving as a crucial mechanism for transforming creativity into tangible outcomes (Julizal et al., 2021). Research from a motivational perspective emphasizes that interactivity and instant feedback mechanisms within the new media environment can stimulate students' intrinsic innovation willingness (Maher et al., 2024). Research on the relationship between students' new media literacy and innovation ability demonstrates a trend of gradually clarifying theoretical constructs and enriching empirical pathways.

Methodology

This study adopted a quantitative research methodology. This study focuses on investigating the new media literacy and innovation ability of students at C university in Shandong. Through questionnaire surveys, this study aims to ascertain the disparities in new media literacy and innovation ability among students at C university in Shandong across different background variables. As of 2024,

there are a total of 15,388 enrolled students at the university. The survey respondents were students from C university in Shandong. According to Krejcie and Morgan's (1970) sample size determination table, a recommended sample size of 385 is suggested. This study plans to distribute 400 questionnaires to the target population. A total of 300 valid questionnaires were retrieved, resulting in a valid response rate of 75.00%. Independent-samples t-tests and one-way analysis of variance (ANOVA) were employed to analyze the overall levels and dimensional scores of new media literacy and innovation ability among students at C university in Shandong across different demographic background variables, such as gender and whether they were the only child in the family. The scores across the various dimensions of the questionnaire were also analyzed. Pearson correlation analysis was used to determine the correlation between new media literacy and innovation ability among students at C university in Shandong.

Results

1. Reliability and Validity Analysis

An analysis of the four dimensions of the new media literacy scale revealed Cronbach's α coefficients of 0.85, 0.87, 0.89, and 0.93 for information acquisition, critical analysis, media creation, and critical composition, respectively. The internal consistency coefficients for each dimension exceeded 0.8, indicating the scale's high reliability. The student innovation ability scale was divided into three dimensions: creative cognition, innovation willingness, and risk tolerance. The Cronbach's α coefficients for these dimensions were 0.80, 0.75, and 0.65. All reliability coefficients were above 0.6, demonstrating good consistency.

This study conducted a validity test on a new media literacy questionnaire. The new media literacy scale, encompassing information acquisition, critical analysis, media creation, and critical composition, yielded a KMO value of 0.835 ($p < 0.001$), with the Bartlett test reaching a significant level, indicating that factor analysis could be performed on the questionnaire. Using the maximum eigenvalue method in factor analysis, the scale was divided into four dimensions, with an explanatory power of 68.71%, exceeding 50%, which suggests good validity. The KMO value for the validity of the student innovation ability scale was 0.811 ($p < 0.001$), with the Bartlett test reaching a significant level, indicating that factor analysis could be performed on it. Using the maximum eigenvalue method in factor analysis, the scale was divided into three dimensions, with an explanatory power of 62.19%, which exceeded 50%, indicating good validity.

2. Demographic Distribution of Respondents

This study examined the basic demographic characteristics of 300 students from C university in Shandong, covering aspects such as gender, grade level, major, and whether they were only children. The gender distribution of the sample was relatively balanced, with males and females accounting for 50.3% and 49.7% of the sample, respectively. This balance allowed for a comprehensive reflection of

the new media literacy and innovation ability of students of different genders. In terms of grade distribution, students from all four grade levels were included, with seniors constituting the highest proportion (30.7%), and freshmen, sophomores, and juniors accounting for 22.7%, 23.7%, and 23.0%, respectively. The overall distribution was relatively even, facilitating comparisons of the differences in relevant ability development across different learning stages.

Liberal arts students constituted the highest proportion (29.7%), followed by art/sports (25.3%), science (23.0%), and engineering majors (22.0%). The coverage of various major types ensured data diversity, aiding in the analysis of the potential impact of academic background on students' abilities. Regarding the variable of being an only child, the proportions of only children and non-only children were 52.7% and 47.3%, respectively. The reasonable distribution of the sample across gender, grade level, major, and family structure provided reliable data support for subsequent differential analyses among the variables.

3. Current Status of New Media Literacy Among Students at C university in Shandong

Students at C university in Shandong demonstrated a relatively high overall level of media literacy. The average scores for all dimensions fell within the high range of 3.41–4.20, indicating that students possess strong abilities in various aspects of new media literacy. The information acquisition dimension had the highest average score (M = 3.96, SD = 0.52), suggesting that students have strong abilities in information searching, screening, and comprehension, enabling them to effectively utilize new media tools to acquire the resources they need. The scores for the critical analysis, critical composition, and media creation dimensions were similar at 3.94, 3.94, and 3.93, respectively. This indicates that students maintain critical awareness when receiving information and possess the ability to express media and produce content. The overall average score for new media literacy among college students was 3.94 (SD = 0.46), indicating a high level

4. Current Status of Innovation Ability Among Students at C university in Shandong

The overall innovation ability of students at C university in Shandong was relatively high. The total average score for students' innovation ability was M = 3.96, with a standard deviation (SD) of 0.49, falling within the high range of 3.41–4.20. This indicates that most students possess a favorable innovation consciousness and potential. Both the scores for creative cognition and innovation willingness were M = 3.97, with SDs of 0.58 and 0.59, respectively. This suggests that students exhibit a positive attitude towards the formation of innovative thinking and actively attempt new methods, demonstrating a strong cognitive foundation and willingness to act. The score for the risk tolerance dimension was M = 3.95, with an SD of 0.54, also at a high level, indicating that students possess strong psychological resilience and adaptability when facing uncertainty and the risk of failure.

5. Statistical Analysis Results of the Data

Differences in new media literacy and innovation ability among students at C university in Shandong across various background variables were analyzed using independent-samples t-tests and

one-way analysis of variance (ANOVA) via the SPSS software. Pearson correlation analysis was employed to explore the relationship between new media literacy and innovation ability among students at C university in Shandong, yielding results to test the research hypotheses.

Significant differences were observed across all dimensions of new media literacy among students of different genders at the university. Independent-samples t-tests revealed that female students scored significantly higher than male students on all dimensions, with the differences being highly significant (all p-values = 0.000). Among students of different grade levels at C university in Shandong, the scores across all dimensions of new media literacy were generally similar, with no significant differences found. ANOVA results showed that regardless of the dimension (information acquisition, critical analysis, media creation, critical composition) or overall new media literacy, the F-values among grade levels were small, and all p-values were greater than 0.05, indicating that the grade factor does not have a statistically significant impact on students' new media literacy. Although there were mean differences across dimensions and overall scores of new media literacy among students from different academic backgrounds at C university in Shandong, these differences did not reach statistical significance (all $p > 0.05$), suggesting that academic major does not significantly influence new media literacy. Independent-samples t-test results indicated that differences in new media literacy across dimensions and overall levels between only children and non-only children at C university in Shandong did not reach statistical significance (all p-values > 0.05), implying that being an only child is not a key factor influencing college students' new media literacy.

No statistically significant differences were found across dimensions and overall levels of innovation ability among students of different genders at C university in Shandong (all $p > 0.05$), indicating that gender does not significantly affect college students' innovation ability. ANOVA and post-hoc LSD test results revealed significant differences across dimensions and overall levels of innovation ability among students of different grade levels at C university in Shandong (high F-values for all dimensions, all p-values = 0.000), suggesting that students' innovation ability significantly enhances with grade progression. ANOVA results showed that differences across dimensions and overall levels of innovation ability among students from different academic backgrounds at C university in Shandong did not reach statistical significance (all p-values > 0.05), indicating that academic major is not a factor that significantly influences students' innovation ability. The independent-samples t-test results indicated that no significant differences were observed across dimensions and overall levels of innovation ability between only children and non-only children at C university in Shandong (all p-values > 0.05), suggesting that being an only child is not a decisive factor influencing students' innovation ability.

Correlation analysis results revealed a Pearson correlation coefficient of $r = 0.065$ between college students' new media literacy and innovation ability, which is close to zero, indicating a very weak correlation with almost no linear relationship. However, this correlation coefficient was not

statistically significant.

Table 1: Verification Results of Research Hypotheses

	Research Hypothesis	Result
H1	There were significant differences in new media literacy among college students with varying background variables.	Partially Supported
H1a	Significant differences in new media literacy exist between college students of different genders.	Supported
H1b	Significant differences in new media literacy were observed among college students of different ages.	Not Supported
H1c	Significant differences in new media literacy were evident among college students from different academic majors.	Not Supported
H1d	Significant differences in new media literacy were found between college students who were only children and those who were not.	Not Supported
H2	There are significant differences in innovation ability among students with varying background variables.	Partially Supported
H2a	Significant differences in innovation ability exist between students of different genders.	Not Supported
H2b	Significant differences in innovation ability were observed among students of different ages.	Supported
H2c	Significant differences in innovation ability are evident among students of different academic majors.	Not Supported
H2d	Significant differences in innovation ability are observed between students who are only children and those who are not.	Not Supported
H3	There is a significant positive correlation between college students' new media literacy and their innovation ability.	Not Supported

Discussion

1. Current Status of New Media Literacy Among Students at C university in Shandong

Students at C university in Shandong exhibited a relatively high overall level of new media literacy. The average scores for dimensions including information acquisition, critical analysis, media creation, and critical composition all fell within the high range of the Likert scale (3.41–4.20). The comprehensive score was M = 3.94, with an SD of 0.46, indicating that students possessed robust new media utilization skills and media awareness. This finding is largely consistent with Zhu's (2023) research on university students' media literacy levels. College students demonstrate proficiency in receptive skills, while there remains room for improvement in the critical and creative dimensions. The

research findings resonate with previous studies, suggesting that although the current media literacy education model has achieved interim success, it necessitates a deepening of curriculum content, an enhancement of practical orientation, and a push for students to transition from proficient usage to adept and ingenious application in the face of a complex and ever-evolving digital environment.

2. Current Status of Innovation Ability Among Students at C university in Shandong

The results of this study indicate that students at C university in Shandong possess a relatively high overall level of innovation ability, with an overall innovation ability score of M = 3.96 and an SD of 0.49. This outcome reflects a solid foundation for innovative competencies among students. They exhibit positive attitudes in cognitive aspects, behavioral motivations, and psychological resilience, mirroring the gradual emergence of effective innovation education in universities in recent years. However, in the absence of real-world tasks and risk-taking scenarios, students encounter difficulties in fully developing their practical abilities to cope with such risks. Li (2024) also highlights that college students' innovation ability is influenced by multiple factors, including the innovativeness of course content, practical opportunities, and faculty guidance.

3. Differences in New Media Literacy Among Students at C university in Shandong Across Various Background Variables

This study analyzed differences in new media literacy among college students based on four background variables: gender, grade level, academic major, and whether they are only children. The results revealed significant gender-based differences, with females scoring higher than males across all dimensions, demonstrating stronger information sensitivity and critical abilities. In contrast, grade level, academic major, and whether students are only children exerted no significant impact on new media literacy. The scores exhibited minimal fluctuations across grade levels, indicating a trend towards balanced new media education in universities. Although slight differences exist in the literacy structure among different academic majors, the overall gap is insignificant. The media usage patterns of only children and non-only children have converged, reflecting the widespread availability of educational resources and diminishing influence of family background disparities. The study suggests that universities should emphasize educational guidance tailored to gender differences while focusing on individual student characteristics and interest pathways to promote a comprehensive enhancement of media literacy.

4. Differences in Innovation Ability Among Students at C university in Shandong Across Various Background Variables

This study systematically analyzed the differences in innovation ability among college students at C university in Shandong based on four background variables: gender, grade level, academic major, and whether they were an only child. The results show no significant differences in innovation ability across dimensions and overall scores based on gender, academic major, or whether students were only children. This suggests that, against the backdrop of a balanced allocation of educational resources,

integrated curriculum systems, and shared practical platforms in universities, students of different genders, academic majors, and family structures exhibit relatively consistent development in innovation cognition, willingness, and risk tolerance. The grade level variable significantly influenced innovation ability, with higher-grade students scoring significantly higher than lower-grade students across all dimensions. This reflects a clear developmental trend in students' innovation ability as their professional learning deepens, project experience accumulates, and innovative practices continue. The study indicates that current innovation education in universities has largely achieved equity in terms of gender, academic major, and family structure issues. However, there remains a need to advance educational strategies based on students' growth stages in a stratified and categorized manner to continuously strengthen the cultivation of high-level innovation abilities.

5. Relationship Between New Media Literacy and Innovation Ability Among Students at C university in Shandong

This study employed Pearson's correlation analysis to examine the relationship between new media literacy and innovation ability among college students at C university in Shandong. The results indicate a positive correlation between the two, although weak. This finding contrasts with those of previous studies. Chin and Zanuddin (2024) posited that new media literacy can effectively enhance students' information processing, expression, and problem-solving abilities, thereby providing cognitive and technical support for innovative behaviors. Their research revealed a moderate positive correlation between these two factors.

Conclusions

1. Research Overview and Conclusions

This study reveals that college students' innovation ability is significantly influenced by their grade level. Senior students demonstrated superior performance in creative cognition, innovation willingness, and risk tolerance, indicating a gradual enhancement of innovation ability across academic stages. Gender, academic major, and whether one is an only child exert no significant impact on innovation ability, suggesting a high degree of equity in the allocation of educational resources and innovation cultivation mechanisms within current higher-education institutions. Pearson's correlation analysis was employed to examine the relationship between new media literacy and innovation ability among students at C university in Shandong. The results indicate a positive but weak correlation between the two. Overall, students' innovation ability is predominantly driven by their growth experiences and practical accumulation. Higher education institutions should further strengthen a tiered and progressive innovation education system to enhance students' comprehensive innovation competencies.

2. Research Limitations

This study systematically explored the current status and relationship between new media

literacy and innovation ability among college students at C university in Shandong, as well as analyzed differences across various background variables. However, this study has some limitations. The restricted sample scope compromises the representativeness of the study, as it focuses solely on 300 undergraduate students from C university in Shandong. The variable design is relatively macroscopic; although new media literacy and innovation ability have been divided into multiple dimensions, the study fails to delve into students' behavioral characteristics, media participation motivations, or specific manifestations of innovation pathways during their actual use of new media. The research methodology is relatively singular, primarily relying on quantitative approaches such as descriptive statistics, t-tests, ANOVA, and Pearson correlation analysis, and lacks supplementation from qualitative interviews, observational methods, or case studies.

3. Suggestions and Implementation Strategies

Higher education institutions should enhance the construction of new media literacy curricula to improve students' media competence structures. They should guide students to integrate information acquisition, viewpoint analysis, and content expression within authentic contexts. Progressive innovation ability cultivation should be advanced, with an emphasis on project-driven and practice-oriented approaches. Higher education institutions should implement tiered innovation education strategies based on students' cognitive levels and developmental needs. A synergistic development mechanism should be constructed by integrating new media literacy with innovation education. Higher education institutions should consciously embed new media elements into innovation education to enhance its relevance and timeliness. They should reinforce personalized cultivation pathways by addressing students' diverse needs and providing targeted support and guidance based on individual characteristics. Furthermore, higher education institutions should regulate and guide media usage behaviors to foster a healthy innovation ecosystem. Beyond teaching media technologies, they should strengthen the guidance and management of students' media behaviors. This can be achieved by organizing media literacy lectures, conducting thematic education on combating information cocoons, and establishing media self-discipline pacts to enhance students' critical media awareness and information selection abilities, thereby avoiding the pitfalls of low-quality, high-frequency media usage.

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