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# An analysis of the influence of interpersonal ability on innovation and entrepreneurship ability in the education integration model of private colleges and universities

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***Abstract :****Based on a questionnaire survey of 100 full-time students in Nanning University, this paper probes into the influence of interpersonal skills on innovation skills and entrepreneurial skills in the model of education integration in private colleges and universities. The results show that there is no significant difference in interpersonal skills, innovation skills and entrepreneurial skills of college students. The students who have participated in the innovation and entrepreneurship competition are significantly higher than the students who have not participated in the interpersonal skills and entrepreneurial skills, but the difference in innovation ability is not significant; The students who have participated in entrepreneurship are significantly higher in the three abilities than the students who have not participated in entrepreneurship. There is a significant positive correlation between interpersonal skills, innovation skills and entrepreneurial skills, and it has a significant positive prediction effect on them. Therefore, this paper proposes that private colleges and universities should strengthen the cultivation of students' interpersonal skills, encourage students to participate in innovation and entrepreneurship competitions, provide opportunities for entrepreneurship practice, integrate ideological and political education with psychological education and establish a comprehensive evaluation system, so as to better enhance students' innovation and entrepreneurship ability under the model of education integration.*

***Keywords:*** *Education integration model; Interpersonal skills; Innovation ability; Entrepreneurial ability*

## I. Introduction

With the development of society and the adjustment of economic structure, more and more college students are involved in the wave of innovation and entrepreneurship. As an important position for cultivating innovative and entrepreneurial talents, private colleges and universities bear the heavy responsibility of cultivating talents with innovative spirit and entrepreneurial ability. The model of integrated education combines knowledge imparting, ability cultivation and quality improvement, which provides strong support for the cultivation of college students' comprehensive ability. Among them, as an important part of college students' comprehensive ability, interpersonal skills not only affect interpersonal relationships and social adaptation, but also play a crucial role in the process of innovation and entrepreneurship (Korzhov et al., 2020).

In the process of entrepreneurship, effective interpersonal communication and teamwork are the key elements of project success (Hamilton et al., 2020).. The training of teamwork and communication skills lays a solid foundation for innovation and entrepreneurship (Katz, 2003). On the one hand, good interpersonal skills can promote the collision of ideas and knowledge sharing among students, stimulate students' innovative

thinking and promote the generation of creativity. On the other hand, interpersonal skills in the entrepreneurial process are directly related to the integration and utilization of resources, the development and maintenance of the market, and can attract investment and opportunities, build efficient cooperation teams, and establish effective interpersonal resources, thus promoting the success of entrepreneurial projects.

This study will explore the impact of interpersonal ability on innovation ability and entrepreneurial ability in the mode of education integration in private colleges and universities, hoping to provide theoretical support and practical guidance for private colleges and universities to better cultivate students' innovation ability and entrepreneurial ability under the mode of education integration.

## II. Literature Review

### Interpersonal Skills and Innovation

Research has shown that interpersonal skills are instrumental in facilitating collaboration, communication, and knowledge sharing among team members, which are essential elements in the innovation process (Hua et al., 2022). Interpersonal skills enable individuals to engage in effective networking, fostering the exchange of ideas and perspectives that can lead to creative breakthroughs. Studies also indicate that individuals with strong interpersonal abilities are better equipped to navigate complex social dynamics, which is crucial in an environment characterized by uncertainty and rapid change (Sun et al., 2023).

### Interpersonal Skills and Entrepreneurship

Entrepreneurship involves navigating a myriad of relationships, including those with investors, customers, suppliers, and team members. Therefore, strong interpersonal skills are essential for entrepreneurs to build trust, establish partnerships, and secure necessary resources (Katz, 2003). Entrepreneurs with excellent interpersonal abilities are better positioned to identify and seize opportunities, manage conflicts, and navigate the challenges inherent in starting and growing a business (Miao et al., 2018).

### The Role of Competitions and Practical Experience

Participation in innovation and entrepreneurship competitions has been found to positively impact students' interpersonal, innovation, and entrepreneurial abilities (Chen & Ke, 2021). Such competitions provide students with opportunities to engage in real-world problem-solving, fostering practical skills and networking experiences that enhance their overall capabilities. Similarly, hands-on entrepreneurial experiences, such as internships or business incubators, have been shown to significantly improve students' abilities in these areas (Liu, 2012).

### Comprehensive Education and Assessment

The integrated education model emphasizes the importance of combining knowledge, skills, and qualities in cultivating students. This approach aligns with the growing recognition that holistic education is necessary to prepare graduates for the complex challenges of the 21st century. Comprehensive evaluation systems that assess students' interpersonal, innovation, and entrepreneurial abilities can provide valuable insights into their strengths and weaknesses, guiding targeted interventions and training programs (Liu et al., 2023).

## III. Research Hypothesis

This paper intends to study college students' interpersonal communication ability, innovation ability and entrepreneurial ability from statistical variables such as gender, participation in innovation and entrepreneurship competition and participation in entrepreneurship, and puts forward the following hypothesis:

H1a: There are significant differences in interpersonal skills between college students of different genders;

H1b: There are significant differences in innovation ability of college students of different genders;

H1c: There are significant differences in entrepreneurial ability of college students of different genders;

H2a: Whether to participate in innovation and entrepreneurship competition has a significant difference in college students' interpersonal skills;

H2b: Whether to participate in the innovation and entrepreneurship competition has a significant difference on the innovation ability of college students;

H2c: Whether to participate in the innovation and entrepreneurship competition has a significant difference on the entrepreneurial ability of college students;

H3a: Whether or not they have participated in entrepreneurship has a significant difference on college students' interpersonal skills;

H3b: There is a significant difference between college students' innovation ability and whether they have participated in entrepreneurship.

H3c: There is a significant difference between college students' entrepreneurial ability and whether they have participated in entrepreneurship.

Innovation capacity is the core driving force for social progress and economic development. Entrepreneurial ability is the key ability of entrepreneurs to transform innovative ideas into practical business results. It covers many aspects such as market analysis, resource allocation, team leadership, and risk management (Gao et al., 2021). In the process of entrepreneurship, entrepreneurs need to have a keen market insight, efficient execution and perseverance to cope with various uncertainties and challenges caused by market changes. Interpersonal skills play an important role in the process of innovation and entrepreneurship. Excellent entrepreneurs not only need to have innovative thinking and ability, but also need to establish a good relationship with investors, suppliers, team members, etc., to ensure the smooth implementation of ideas and the steady progress of entrepreneurial projects ( Guo et al.,2023). In order to further explore the relationship between college students' interpersonal communication ability, innovation ability and entrepreneurial ability, this paper puts forward the following hypothesis:

H4a: There is a significant positive correlation between college students' interpersonal communication ability and innovation ability;

H4b: There is a significant positive correlation between college students' interpersonal skills and entrepreneurial skills;

H5a: The interpersonal ability of college students has a significant positive predictive effect on innovation ability;

H5b: College students' interpersonal ability has a significant positive predictive effect on entrepreneurial ability.

## IV. Research Methods

### Research Participants

This study employs a comprehensive questionnaire survey method to gain insights into the intricate relationship between interpersonal skills, innovation abilities, and entrepreneurial prowess among a select group of university students. Specifically, the research focuses on a diverse sample of 100 full-time students at Nanning University, a prestigious institution known for fostering a vibrant and innovative academic environment. The sampling process utilizes a rigorous random selection methodology, ensuring the

representativeness of the sample while capturing the unique characteristics of the student population between March and June 2024.

The students at Nanning University exhibit a distinct gender balance, with males comprising 69% of the sample and females accounting for 31%. This gender distribution reflects the broader trends observed in STEM (Science, Technology, Engineering, and Mathematics) fields, where Nanning University excels in nurturing future leaders and innovators.

One of the defining features of these students is their active engagement in extracurricular activities that foster creativity and entrepreneurship. Notably, 42% of the participants have prior experience in participating in college-level innovation and entrepreneurship competitions. These competitions often involve rigorous problem-solving, teamwork, and presentation skills, providing students with hands-on opportunities to develop their ideas into viable business concepts. The passion and dedication displayed by these students underline Nanning University's commitment to nurturing an entrepreneurial mindset among its students.

However, the transition from idea generation to actual entrepreneurship remains a challenge, as evidenced by the fact that only 17% of the surveyed students have direct experience in launching their own ventures. This disparity highlights the need for additional support systems, mentorship, and funding opportunities to bridge the gap between aspiration and execution. Nanning University recognizes this gap and is continually exploring ways to provide its students with the necessary resources and guidance to turn their entrepreneurial dreams into reality.

Beyond their academic pursuits and entrepreneurial endeavors, Nanning University students are also known for their strong interpersonal skills, which are essential for collaboration, networking, and leadership. These abilities are honed through various campus organizations, group projects, and international exchange programs, preparing them well for the complex and interconnected world of innovation and entrepreneurship.

In summary, the students selected for this study represent a vibrant and ambitious cohort from Nanning University, characterized by their gender diversity, active engagement in innovation and entrepreneurship competitions, a desire to launch their own ventures, and strong interpersonal skills. This unique blend of attributes makes them an ideal population to investigate the intricate connections between interpersonal abilities, innovation, and entrepreneurial success within the context of an integrated education model at private universities.

**Measurement Tools**

In order to understand the development of interpersonal skills, innovation skills and entrepreneurial skills in Nanning University, the following three types of questionnaires were adopted in this study:

(1) For the measurement of interpersonal skills, in order to accurately capture the characteristics of college students, the scale is adjusted and optimized in detail on the basis of empirical evidence with reference to the widely recognized and highly authoritative multiple intelligence scale written by Professor Wu Wudian. The interpersonal skills part mainly includes the following aspects: social preference and initiative, such as "I prefer interacting with people to being alone"; Leadership and teamwork skills, such as "I seem to be a natural leader among my friends and classmates"; Emotional support and empathy, such as "I am compassionate or willing to care for others." The reliability coefficient measured by this scale is 0.826, which is greater than 0.8, indicating that the reliability quality of the measurement data of interpersonal skills is high.

(2) For the measurement of innovation ability, in order to improve the validity of the questionnaire and achieve a more comprehensive and accurate evaluation and prospective prediction of college students' innovation ability, in view of the multi-dimensional and complex nature of innovation ability and the diversity of influencing factors, This study divides the dimensions of innovation ability into four key areas: innovation consciousness stimulation, innovation thinking expansion, innovation personality shaping and innovation skills

mastery （Liu et al.,2021）. Through carefully designed questions, a multi-dimensional and all-round investigation is conducted on each dimension, with a total of 22 questions, aiming at a comprehensive and in-depth understanding of the current level of innovation ability of Nanning University students and their specific performance in each dimension. The reliability coefficient value measured by the scale is 0.957, which is greater than 0.9, indicating that the reliability quality of the measurement data of innovation ability is high.

(3) Measurement of entrepreneurial ability: In order to make the survey more suitable for the specific needs and purposes of this study, this study draws on the questionnaire structure of evaluation of entrepreneurial ability（Xiao & Yong, 2023). We focus on the core connotation of entrepreneurial ability. The questionnaire was divided into five dimensions: the ability to grasp opportunities, the ability to cope with psychological resilience, the ability to efficiently organize and manage, the ability to continue entrepreneurial learning, and the ability to innovate and create excellence. The questionnaire items were carefully modified and adjusted. Through carefully designed questions, each dimension is examined in a multi-dimensional and all-round way, with a total of 21 questions, aiming at a comprehensive and in-depth understanding of the respondents' current level of entrepreneurial ability and their specific performance in each dimension. The reliability coefficient value measured by the scale is 0.942, which is greater than 0.9, indicating that the reliability quality of the measurement data for entrepreneurial ability is high.

In terms of the evaluation system of the above three types of ability measurement, we choose Likert 5-point scale evaluation method to measure it, and give 1-5 evaluation grades according to the standard from "very inconsistent" to "very consistent", of which 1 is "very inconsistent",2 is "inconsistent", 3 is "general",4 is "consistent", and 5 is "very consistent". This evaluation system is not only convenient for information acquisition and statistics, but also can more intuitively reflect the level of students' corresponding ability. The higher the evaluation level, the better the corresponding ability of students.

**Data collection and analysis**

The above three types of questionnaires were distributed to the research subjects by means of questionnaire star. After the survey, Excel and SPSS statistical software were used for data analysis, including descriptive statistical analysis, correlation analysis and regression analysis. First, the basic characteristics of the sample are analyzed by descriptive statistics. Secondly, the correlation between interpersonal competence and innovation and entrepreneurship ability is discussed through Pearson correlation coefficient. Finally, the linear regression model is used to analyze the specific impact of interpersonal skills on innovation and entrepreneurship.

## V. Data analysis and results discussion

**Descriptive statistical analysis based on demographic variables**

**Gender factor**

This study conducted an independent sample T-test on the measurement results of interpersonal skills, innovation skills and entrepreneurial skills of college students of different genders, and the test results were shown in Table 1. The average score of interpersonal skills, innovation skills and entrepreneurial skills of male students was lower than that of female students. The t statistics of interpersonal skills, innovation skills and entrepreneurial skills of the two groups were -0.283, -1.047 and -0.479, respectively. The double-tailed significance probability of t distribution of interpersonal skills was Sig.=0.778>0.05. The double-tailed significance probability Sig.=0.298>0.05 of the t distribution of innovation ability, and the double-tailed significance probability Sig.=0.633>0.05 of the t distribution of entrepreneurship ability, means that the average values of interpersonal skills, innovation skills and entrepreneurial skills of samples of different genders show consistency without difference. It can be seen that there is no significant difference in interpersonal skills, innovation skills and entrepreneurial skills of college students in terms of gender, and H1a, H1b and H1c are assumed to be unverified.

**Table 1 Differences in interpersonal skills, innovation skills and entrepreneurial skills among college students of different genders**

| | Gende | Frequency | M | SD | t | Sig. |
|---|---|---|---|---|---|---|
| **Interpersonal skills** | **Male** | **69** | 3.31 | 0.62 | -0.283 | 0.778 |
| | **Female** | **31** | 3.35 | 0.57 | | |
| **Innovation ability** | **Male** | **69** | 3.46 | 0.61 | -1.047 | 0.298 |
| | **Female** | **31** | 3.60 | 0.58 | | |
| **Entrepreneurial ability** | **Male** | **69** | 3.31 | 0.61 | -0.479 | 0.633 |
| | **Female** | **31** | 3.37 | 0.52 | | |

**Impact of innovation and entrepreneurship competition**

This study conducted an independent sample T-test on the measurement results of interpersonal skills, innovation skills and entrepreneurial skills of students who participated in innovation and entrepreneurship competitions, and the test results were shown in Table 2. The average scores of the students who have participated in the innovation and entrepreneurship competition are higher than those of the students who have not participated. The t statistics of interpersonal ability, innovation ability and entrepreneurial ability of the two groups were 2.186, 1.884 and 2.708, respectively. The double-tailed significance probability Sig.=0.031<0.05 for the t distribution of interpersonal competence, and the double-tailed significance probability Sig.=0.063>0.05 for the t distribution of innovation competence. The double-tailed significance probability Sig.=0.008<0.05 of the t distribution of entrepreneurial ability means that whether students have participated in the innovation and entrepreneurship competition for college students has a significant difference in interpersonal communication ability and entrepreneurial ability, but no significant difference in entrepreneurial ability. Assume that H2a and H2c are verified, while H2b is not.

**Table 2 Differences in interpersonal skills, innovation skills and entrepreneurial skills among college students who participate in innovation and entrepreneurship competition**

| | Have you ever participated in college student innovation and entrepreneurship competition | Frequency | M | SD | t | Sig. |
|---|---|---|---|---|---|---|
| **Interpersonal skills** | **Yes** | **42** | **3.47** | **0.54** | 2.186 | 0.031* |
| | **No** | **58** | **3.21** | **0.62** | | |
| **Innovation ability** | **Yes** | **42** | **3.64** | **0.53** | 1.884 | 0.063 |
| | **No** | **58** | **3.41** | **0.64** | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Entrepreneurial ability** | **Yes** | **42** | **3.51** | **0.53** | 2.708 | 0.008** |
| | **No** | **58** | **3.20** | **0.58** | | |

**Influence of entrepreneurial experience**

In this study, an independent sample T-test was conducted on the measurement results of interpersonal skills, innovation skills and entrepreneurial skills, whether they have participated in entrepreneurship or not. The test results are shown in Table 3. The average scores of students who have participated in entrepreneurship are higher than those who have not, but the average scores of students who have participated in entrepreneurship are lower than those who have not. The t statistics of interpersonal skills, innovation skills and entrepreneurial skills of the two groups were 3.320, 2.530 and 4.056, respectively. The double-tailed significance probability Sig.=0.001<0.05 for the t distribution of interpersonal competence, and the double-tailed significance probability Sig.=0.0013<0.05 for the t distribution of innovation competence. The double-tailed significance probability of the t distribution of entrepreneurial ability is Sig.=0.000<0.05, which means that whether or not students have participated in entrepreneurship has significant differences in interpersonal communication ability, innovation ability and entrepreneurial ability. Assume that H3a, H3b, and H3c are verified.

**Table 3 Differences in interpersonal skills, innovation skills and entrepreneurial skills among college students who have participated in entrepreneurship or not**

| | **Have you ever been involved in a startup** | **Frequency** | **M** | **SD** | **t** | **Sig.** |
|---|---|---|---|---|---|---|
| **Interpersonal skills** | **Yes** | **17** | 3.74 | 0.68 | 3.320 | 0.001** |
| | **No** | **83** | 3.24 | 0.55 | | |
| **Innovation ability** | **Yes** | **17** | 3.83 | 0.55 | 2.530 | 0.013* |
| | **No** | **83** | 3.44 | 0.60 | | |
| **Entrepreneurial ability** | **Yes** | **17** | 3.81 | 0.58 | 4.056 | 0.000** |
| | **No** | **83** | 3.23 | 0.53 | | |

**Correlation analysis of college students' interpersonal skills, innovation ability and entrepreneurial ability**

We used the Pearson correlation coefficient bilateral significance test to study the correlation between college students' interpersonal skills, innovation skills and entrepreneurial skills, and the results are shown in Table 4. The Pearson correlation coefficient between interpersonal communication ability and innovation ability is 0.699, with a significance of 0.01, indicating that there is a significant positive correlation between interpersonal communication ability and innovation ability of college students, indicating that interpersonal communication ability of college students is an important influencing factor of innovation ability. The Pearson correlation coefficient between interpersonal skills and entrepreneurial skills is 0.706, with a significance of 0.01, which indicates that there is a significant positive correlation between interpersonal skills and

entrepreneurial skills. It can be seen that college students' interpersonal communication ability is an important factor affecting entrepreneurial ability, and hypothesis H4a and H4b are verified.

**Table 4 Correlation analysis of college students' interpersonal communication ability, innovation ability and entrepreneurial ability**

| Pearson correlation - trigonometric format | | | |
|---|---|---|---|
| | **Interpersonal skills** | **Innovation ability** | **Entrepreneurial ability** |
| **Interpersonal skills** | **1** | | |
| **Innovation ability** | **0.699**** | **1** | |
| **Entrepreneurial ability** | **0.706**** | **0.736**** | **1** |
| *** $p$<0.05 ** $p$<0.01** | | | |

**Analysis of the predictive effect of college students' interpersonal skills on innovation ability and entrepreneurial ability**

The above analysis of the correlation between college students' interpersonal communication ability, innovation ability and entrepreneurial ability has shown that college students' interpersonal communication ability is an important factor affecting innovation ability and entrepreneurial ability. In order to further explain the predictive effect of college students' interpersonal competence on innovation ability and entrepreneurship ability, this study adopts the unitary linear regression method of SPSS to further study the predictive effect of college students' interpersonal competence on innovation ability and entrepreneurship ability.

In this study, interpersonal skills are taken as independent variables and innovation skills are taken as dependent variables for linear regression analysis. The results are shown in Table 5. It can be seen that the formula of the model is: innovation ability =1.159 + 0.706* interpersonal ability, and the R-square value of the model is 0.489, which means that interpersonal ability can explain 48.9% of the change of innovation ability. During the F-test of the model, it was found that the model passed the F-test (F=93.820, p=0.000<0.05), which means that interpersonal skills must have an impact on innovation ability. The final concrete analysis shows that: The regression coefficient value of the average interpersonal competence is 0.706(t=9.686, p=0.000<0.01), which means that interpersonal competence will have a significant positive impact on innovation competence. The hypothesis H5a is verified.

**Table 5 Regression analysis of interpersonal ability and innovation ability of college students**

| Linear regression analysis results (n=100) |
|---|

| Model | Unstandardized Coefficients | | Standardizad Coefficients | *t* | *p* | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|
| | ***B*** | Std. Error | ***Beta*** | | | **VIF** | Tolerability |
| Constant | **1.159** | **0.246** | **-** | **4.711** | **0.000**** | **-** | **-** |
| **Interpersonal skills** | **0.706** | **0.073** | **0.699** | **9.686** | **0.000**** | **1.000** | **1.000** |
| $R^2$ | **0.489** | | | | | | |
| Adjust $R^2$ | **0.484** | | | | | | |
| ***F*** | ***F* (1,98)=93.820,*p*=0.000** | | | | | | |
| Durbin-Watson | **2.088** | | | | | | |
| **Note: Dependent variable = Innovation ability** | | | | | | | |
| *** *p*<0.05 ** *p*<0.01** | | | | | | | |

In this study, interpersonal skills were taken as independent variables and entrepreneurial skills as dependent variables for linear regression analysis, and the results were shown in Table 6. As can be seen from the above table, the formula of the model is: entrepreneurial ability =1.056 + 0.683* interpersonal ability, and the R-square value of the model is 0.499, which means that the average interpersonal ability can explain 49.9% of the change of the average entrepreneurial ability. During the F-test of the model, it was found that the model passed the F-test (F=97.555, p=0.000<0.05), which means that interpersonal skills must have an impact on entrepreneurial ability. The final concrete analysis shows that: The regression coefficient value of interpersonal competence is 0.683(t=9.877, p=0.000<0.01), which means that interpersonal competence will have a significant positive impact on entrepreneurial competence. The hypothesis H5b is verified.

**Table 6 Regression analysis of college students' interpersonal ability and entrepreneurial ability**

| **Linear regression analysis results (n=100)** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | Unstandardized Coefficients | | Standardizad Coefficients | *t* | *p* | Collinearity Statistics | |
| | ***B*** | Std. Error | ***Beta*** | | | **VIF** | Tolerability |
| Constant | **1.056** | **0.234** | **-** | **4.521** | **0.000**** | **-** | **-** |
| **Interpersonal skills** | **0.683** | **0.069** | **0.706** | **9.877** | **0.000**** | **1.000** | **1.000** |
| $R^2$ | **0.499** | | | | | | |
| Adjust $R^2$ | **0.494** | | | | | | |

| **Linear regression analysis results (n=100)** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Model | Unstandardized Coefficients | | Standardizad Coefficients | ***t*** | ***p*** | Collinearity Statistics | |
| | ***B*** | Std. Error | ***Beta*** | | | **VIF** | Tolerability |
| ***F*** | ***F* (1,98)=97.555,*p*=0.000** | | | | | | |
| Durbin-Watson | **2.193** | | | | | | |
| **Note: Dependent variable = Entrepreneurial ability** | | | | | | | |
| **** p*<0.05 ** *p*<0.01** | | | | | | | |

## VI. Recommendations

Based on the research findings and the unique characteristics of Nanning University, the following suggestions are proposed to enhance students' interpersonal, innovation, and entrepreneurial abilities within the context of the education integration model:

### School Setting

Curriculum Integration: Nanning University should integrate courses related to interpersonal skills, innovation, and entrepreneurship across disciplines. This includes incorporating soft skills training, such as teamwork and communication, into technical and scientific courses. Regularly reviewing and updating the curriculum to align with industry trends and student needs is crucial.

Comprehensive Evaluation System: Establish a comprehensive evaluation system that assesses students' interpersonal, innovation, and entrepreneurial abilities. This system should incorporate self-reflection, peer feedback, and faculty evaluations to provide a holistic view of student performance. The results of this evaluation can inform personalized learning plans.

### Teaching Activities

Interactive Learning: Encourage interactive and collaborative learning environments in classrooms. Use case studies, group discussions, and role-playing exercises to simulate real-world scenarios and foster interpersonal skills. Encourage students to share their ideas and perspectives, thereby promoting innovation.

Guest Lectures and Workshops: Invite industry experts, successful entrepreneurs, and alumni to conduct guest lectures and workshops. These sessions can provide insights into the practical application of interpersonal, innovation, and entrepreneurial skills in the real world.

### Extracurricular Activities

Entrepreneurship Clubs and Competitions: Support and expand entrepreneurship clubs and encourage student participation in innovation and entrepreneurship competitions. These platforms offer hands-on experience, networking opportunities, and mentorship, enhancing students' interpersonal, innovation, and entrepreneurial abilities.

Internship and Mentoring Programs: Establish partnerships with local businesses and industries to provide internships and mentoring programs for students. These experiences expose students to real-world challenges and allow them to apply their skills under the guidance of experienced professionals.

**Student Planning and Support**

Personalized Career Planning: Implement personalized career planning services that consider students' strengths, interests, and goals. These services should include assessments of interpersonal, innovation, and entrepreneurial abilities, followed by tailored recommendations for coursework, extracurricular activities, and internships.

Entrepreneurial Resource Centers: Establish entrepreneurial resource centers where students can access funding, legal advice, market research tools, and networking events. These centers should also offer workshops and seminars on topics such as business plan development, pitching, and financial management.

Psychological and Emotional Support: Recognizing the stress and challenges associated with entrepreneurship, provide psychological and emotional support services to students. This includes counseling, stress management workshops, and peer support groups to help students navigate the ups and downs of the entrepreneurial journey.

By incorporating these suggestions into the education integration model at Nanning University, the institution can effectively enhance students' interpersonal, innovation, and entrepreneurial abilities. By fostering a collaborative and supportive environment that prioritizes practical experience and personalized growth, Nanning University can continue to produce graduates who are well-equipped to navigate the complex and dynamic world of innovation and entrepreneurship.

## VII. Conclusions

Based on the comprehensive analysis of the data collected from the questionnaire survey conducted among 100 full-time students at Nanning University, the following conclusions can be drawn regarding the influence of interpersonal skills on innovation and entrepreneurial abilities within the context of the education integration model in private colleges and universities:

Gender Neutrality in Abilities: The study found no significant difference in interpersonal skills, innovation abilities, or entrepreneurial abilities between male and female students. This suggests that gender is not a determinant factor influencing these abilities among the study population, indicating the education integration model at Nanning University effectively fosters a gender-neutral environment for skill development.

Impact of Competitions: Students who have participated in innovation and entrepreneurship competitions exhibited significantly higher interpersonal skills and entrepreneurial abilities compared to those who have not participated. However, the difference in innovation ability was not statistically significant. This underscores the positive role of competitions in enhancing interpersonal and entrepreneurial skills, though their direct impact on innovation ability alone may be more nuanced.

Entrepreneurial Experience Matters: Students with direct entrepreneurial experience scored significantly higher in interpersonal skills, innovation abilities, and entrepreneurial abilities than those without such experience. This emphasizes the crucial role of hands-on entrepreneurial exposure in holistically boosting these abilities among students.

Positive Correlation: A significant positive correlation was observed between interpersonal skills and both innovation abilities and entrepreneurial abilities. This finding highlights the importance of strong interpersonal skills in facilitating innovation and entrepreneurship, as they enable effective collaboration, communication, and resource mobilization.

Predictive Power of Interpersonal Skills: The study confirmed that interpersonal skills have a significant positive predictive effect on both innovation and entrepreneurial abilities. This underscores the need for private colleges and universities to prioritize the cultivation of interpersonal skills in their education programs, as they are key drivers of student success in innovation and entrepreneurship.

To sum up, in the model of education integration in private colleges and universities, interpersonal communication ability has a significant positive impact on innovation ability and entrepreneurial ability. By constructing an integrated education model, private colleges and universities can effectively promote the improvement of students' interpersonal skills and innovation and entrepreneurship. Based on the above research conclusions, this paper puts forward the following suggestions in order to better enhance students' innovation ability and entrepreneurial ability under the mode of education integration.

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