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Impact of Entrepreneurship Knowledge Literacy Curriculum on College Graduates' Sustainable Entrepreneurial Competence Based on Entrepreneurial Learning Theory

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ABSTRACT

For promoting innovation-driven strategies and accelerating economic development and reform, *initiative of mass entrepreneurship and innovation* in china is started in September 2014. College students are an important force in promoting the initiative. However, according to *the 2019 Employment Report on Chinese College Students*, only 1.8 percent of college graduates in 2018 started their businesses and the success rate was even lower because of lacking entrepreneurial competence. This paper aims to arouse the attention of government institutions, universities, teachers, and college students to entrepreneurship curriculum by exploring the relationship of entrepreneurship knowledge literacy curriculum on college graduates' entrepreneurial competence. This study collected 400 data by surveying senior students in typical experience universities and used AMOS23.0 and SPSS26.0 as data analysis tools. Results demonstrated that entrepreneurship knowledge literacy curriculums directly and significantly affect college students' entrepreneurial competence and entrepreneurial self-efficacy has the mediating effect. However, entrepreneurship knowledge literacy curriculums do not affect entrepreneurial skills competence. This study suggests that typical experience universities of innovation and entrepreneurship should appropriately increase entrepreneurship practice curriculums to cultivate college students' entrepreneurial skill competence.

1. INTRODUCTION

Innovation and entrepreneurship will be a major measure of China's economic and social development in the future. China's economy has been developing continuously for more than 40 years because of the reform and opening-up policy. In addition, it should be noted that with the aging of China's population and the gradual disappearance of the surplus cheap rural labor force, China's comparative advantage based on traditional demographic dividend, land, and other cheap factors are gradually losing, and it is urgent to carry out the transformation of development mode. Faced with the new situation, Premier Li Keqiang called for mass entrepreneurship and innovation initiative in September 2014. Mass entrepreneurship and innovation initiative are important strategies promoting innovation to drive the pattern of economic development and reform, restructuring, livelihood, and building new kinetic energy [1]. College students are an important force in promoting initiative of mass entrepreneurship and innovation. Successful entrepreneurs of college students must have comprehensive entrepreneurial competence. In China, according to *the 2019 Employment Report on Chinese College Students*, only 1.8 percent of college graduates in 2018 started their businesses, and the success rate was even lower [2].

The reason for the low entrepreneurship rate and success rate of college students is mainly the lack of effective entrepreneurship curriculums in China. Existing studies have proved that entrepreneurship can be taught [3] and entrepreneurship education can effectively affect entrepreneurial competence [4]. The most direct and effective way to cultivate college students' entrepreneurial competence is the entrepreneurship curriculum in entrepreneurship education. For example, colleges and universities in America have established a perfect entrepreneurship curriculum system and have achieved excellent teaching effects on entrepreneurship. More than 500 universities and colleges in the United States have established more than 5,000 entrepreneurship curriculums. The complete curriculum system plays a positive role in cultivating the entrepreneurial competence of American college students. The entrepreneurial rate of American college students is as high as 21% ~ 24%, and the entrepreneurial success rate reaches 20% [5].

Entrepreneurship knowledge literacy curriculums are an indispensable part of cultivating college students' entrepreneurial competence. Entrepreneurship curriculum can be divided into entrepreneurship knowledge literacy curriculum and entrepreneurship practice curriculum [6-8]. At present, scholars have mainly studied the training mechanism of entrepreneurship curriculums or entrepreneurship practice curriculums on college students' entrepreneurial competence. There is still little empirical study on the relationship between the entrepreneurship knowledge literacy curriculum and college students' entrepreneurial competence. From a practical point of view, entrepreneurship education in universities began with *the Challenge Cup Collegiate Business Plan Competition* in China. This "preconceived" approach has caused entrepreneurship practice education to become the

main education method of entrepreneurship education, and ignored education [9]. Fortunately, colleges and universities with typical experience of innovation and entrepreneurship have begun to increase the development and teaching of Entrepreneurship knowledge literacy curriculum. Therefore, it is necessary to demonstrate the impact of the Entrepreneurship knowledge literacy curriculum on college students' entrepreneurial competence. Therefore, this study's objectives are: (1) What is the effect of learning entrepreneurship knowledge literacy curriculums on improving entrepreneurial competence of college students? (2) What role does entrepreneurial self-efficacy in the relationship of entrepreneurship knowledge literacy curriculums on college students' entrepreneurial competence?

This paper explored the relationship between entrepreneurship knowledge literacy curriculums and college students' entrepreneurial competence. This study selects 3 million graduates from 200 universities with typical experience of innovation and entrepreneurship as research samples. Results showed that entrepreneurship knowledge literacy curriculums can significantly improve entrepreneurial self-efficacy, entrepreneurial potential competence, and entrepreneurial knowledge competence, but it has no obvious effect on entrepreneurial skills competence. This paper also confirmed that entrepreneurial self-efficacy has a mediating effect on the interaction between both sides. Therefore, the entrepreneurship knowledge literacy curriculums are essential to comprehensively improve the entrepreneurial awareness and literacy of Chinese college students, enhance the entrepreneurial willingness of college students, and improve the entrepreneurial rate of college students.

2. LITERATURE REVIEW

Entrepreneurial learning theory is the theoretical basis of this study. In the economics classic *The Wealth of Nations*, Adam Smith defined entrepreneurs as capitalists. At the beginning of the 19th century, French economist Say distinguished between two kinds of entrepreneurs, namely, the owners of business capital and those who perform business management functions. In classical economics and neoclassical economics as the mainstream economic theory, the role of entrepreneurs has been largely ignored by economists. However, the Austrian universities pushed the role of the entrepreneur to a central theoretical position in economics. Economists Polanyi, Casson, Demsetz, and others have had a profound impact on the development of entrepreneurship theory. Polanyi [10] called the entrepreneurial theory "Tacit Knowledge" and "individual Knowledge". In addition, he believes that information is incomplete in the real economy, and individuals have different abilities and channels to obtain information. Therefore, entrepreneurs are "people who specialize in judgment and decision-making in a unique, unpredictable and often complex environment" [11]. Demsetz [12] also pointed out that the fundamental reason for the existence of firms was that the market could not organize knowledge effectively. When faced with uncertain and risky environments, entrepreneurs can accurately judge and make satisfactory decisions because they have heterogeneous information and knowledge. The entrepreneurial vigilance proposed by Kirshner is a quality of entrepreneurs, and the existing knowledge of entrepreneurs is the main factor that affects entrepreneurial vigilance [13]. To sum up, the early research on entrepreneurial learning from economic theory has laid a necessary theoretical foundation for the development of entrepreneurial learning theory. Some people may have the talent to start a business, but learning is more important. Learning becomes a special relationship to screen entrepreneurs [14].

In the development of entrepreneurial learning theory, there are some classic entrepreneurial learning models, such as Colitis's entrepreneurial learning model, Holcomb's entrepreneurial learning model, Rae's entrepreneurial learning model, and Petrovna's entrepreneurial learning model. Polity's entrepreneurial learning model emphasizes the conversion of entrepreneurs' previous experience (entrepreneurial experience, management experience, industry experience) into entrepreneurial knowledge (opportunity identification, overcoming start-up weaknesses) through exploratory and applied transformation methods. Holcomb interconnects intuitive inference, knowledge, decisions, actions, and results to form a complete entrepreneurial learning model [15]. The entrepreneurial learning model of Rae is quite different from the previous two entrepreneurial learning models. All the above entrepreneurial learning models are based on cognitive theory, while Rae's model is based on social learning theory and social construction theory. Through in-depth interviews with individual entrepreneurs, Rae uses narrative methods to tell their life stories. Rae's entrepreneurial learning model mainly includes eight themes. They are self-efficacy, personal values and motivation, personal achievement, setting and achieving grand goals, an individual theory derived from experience, intellectual competence, relational competence, and active learning. Interaction and collaboration between these topics are very important for entrepreneurial learning. Among the eight themes, Rae emphasizes, in particular, the improvement of individual self-efficacy and positive attitude through entrepreneurial learning [16]. Petkova and Springel believe that entrepreneurial learning is a cyclical process. It goes through a learning-error-learning process to continually process "wrong" information to change the structure of previous knowledge. The knowledge structure of a specific domain mainly includes general knowledge, professional knowledge, and revised knowledge [17]. Petrovna's entrepreneurial learning model includes the following three stages of generating entrepreneurial results. The innovator faces new tasks and new environments, sets goals, and stimulates entrepreneurial behavior. Apply general knowledge to select behavior and carry out entrepreneurial activities. Error detection phase. Entrepreneurs use general knowledge to explain their results. The actual results are compared with the expected results. Apply professional knowledge to analyze existing errors. Error correction phase. After finding the error, analyze the cause of the error. Apply professional knowledge to correct errors. Acquire the right knowledge to update the knowledge structure. Petkovic believes that these three stages are a gradual process, and has drawn some propositions about the influence of entrepreneurial knowledge and cognitive ability on entrepreneurial learning and entrepreneurial results.

To sum up, entrepreneurial learning theory presents academic prosperity of "a hundred flowers bloom and a hundred schools of thought contend". Different schools explain entrepreneurial learning from different theoretical perspectives, which broaden the research perspective of entrepreneurial learning and enrich the theory of entrepreneurial learning.

3. HYPOTHESES DEVELOPMENT

3.1 Entrepreneurship knowledge literacy curriculum and college students' entrepreneurial competence

According to entrepreneurial learning theory, the entrepreneurial ability can be acquired through acquired education or practice. Ronstadt [18] proved that entrepreneurship can be taught from a theoretical point of view. Timmons, an American scholar, believes that the entrepreneurship curriculum content is the core of the curriculum, and the specific curriculum content carries the specific knowledge and curriculum goal system. In other words, there may be some connection between entrepreneurial knowledge literacy curriculum and entrepreneurial competence. Entrepreneurial competence includes three parts: entrepreneurial potential competence, entrepreneurial knowledge competence, entrepreneurial skills, and competence [19]. therefore, this paper puts forward the following hypotheses on the relationship between entrepreneurship curriculums in universities and college students' entrepreneurial competence:

Hypothesis 1: Entrepreneurial knowledge literacy curriculums directly and significantly affect college students' entrepreneurial competencies

Hypothesis 1**(H1a)**: Entrepreneurial knowledge literacy curriculums directly and significantly affect college students' entrepreneurial potential competence

Hypothesis 1**(H1b)**: Entrepreneurial knowledge literacy curriculums directly and significantly affect college students' entrepreneurial knowledge competence

Hypothesis 1**(H1c)**: Entrepreneurial knowledge literacy curriculums directly and significantly affect college students' entrepreneurial skill competence

3.2 Entrepreneurship knowledge literacy curriculum and entrepreneurial self-efficacy

Chen and Yin [20] showed through empirical research that college students' entrepreneurial self-efficacy would be influenced by past entrepreneurial experience and participation in entrepreneurship training curriculums. Liu [21] discussed how entrepreneurship curriculums promote entrepreneurial self-efficacy, indicating that individuals assess whether they have confidence and ability to engage in certain activities. The process reflects the entrepreneurs' confidence that they can influence the environment and achieve success through corresponding behaviors. Entrepreneurial self-efficacy is not a personal trait or ability but can be improved through entrepreneurial education. Based on the above research, this paper makes the following assumptions about the impact of entrepreneurship knowledge literacy curriculum on entrepreneurial self-efficacy:

Hypothesis 2(H2): Entrepreneurial knowledge literacy curriculums positively and significantly affect entrepreneurial self-efficacy

3.3 Entrepreneurial self-efficacy and college students' entrepreneurial competence

Entrepreneurial self-efficacy is the self-confidence that an individual possesses to complete the entrepreneurial task or achieve the entrepreneurial goal. The research of Miao and others showed that entrepreneurial self-efficacy as a psychological factor can promote the growth of enterprises [22]. Su [23] researched Chinese entrepreneurs and confirmed that entrepreneurial self-efficacy could promote entrepreneurial performance through causal logic and effect logic. It can be seen that entrepreneurs with high entrepreneurial self-efficacy can show the best state in the development of enterprises and promote the healthy development of enterprises. Yi et al. [24] based on the characteristics of entrepreneurs and social cognition theory, took 317 small and micro enterprises of science and technology in Changsha, Hunan Province as objects, confirming that entrepreneurial self-efficacy can improve entrepreneurial orientation. As mentioned in the review, entrepreneurial self-efficacy has a certain promotion effect on entrepreneurial behavior and ability. Therefore, this paper makes the following assumptions:

Hypothesis 3: Entrepreneurial self-efficacy forcefully affects college students' entrepreneurial competence

Hypothesis 3(H3a): Entrepreneurial self-efficacy forcefully affects college students' entrepreneurial potential competence

Hypothesis 3(H3b): Entrepreneurial self-efficacy forcefully affects college students' entrepreneurial knowledge competence

Hypothesis 3(H3c): Entrepreneurial self-efficacy forcefully affects college students' entrepreneurial skills competence

3.4 Mediating effect of entrepreneurial self-efficacy

College students' entrepreneurial self-efficacy will be influenced by past entrepreneurial experiences and participation in the entrepreneurship knowledge literacy curriculum. Entrepreneurship knowledge literacy curriculums can enable college students to influence their environment and gain confidence in success through corresponding behaviors. Therefore, entrepreneurship knowledge literacy curriculums have a positive impact on college students' entrepreneurial self-efficacy. Forbes found that entrepreneurs' entrepreneurial self-efficacy has a positive effect on enterprise performance [25]. Therefore, entrepreneurial self-efficacy has a positive impact on entrepreneurial self-efficacy. Existing research has confirmed that entrepreneurial self-efficacy plays an intermediary role in entrepreneurial motivation [26]. Therefore, this paper makes the following assumptions:

Hypothesis 4: The mediating effect of entrepreneurial self-efficacy in the relationship of entrepreneurship knowledge literacy curriculum on college students' entrepreneurial competence

Hypothesis 4(H4a): Entrepreneurial self-efficacy has a mediating effect on the positive relationship of entrepreneurial knowledge literacy curriculum on college students' entrepreneurial potential competence

Hypothesis 4(H4b): Entrepreneurial self-efficacy has a mediating effect on the positive relationship of entrepreneurial knowledge literacy curriculums on college students' entrepreneurial knowledge competence

Hypothesis 4(H4c): Entrepreneurial self-efficacy has a mediating effect on the positive relationship of entrepreneurial knowledge literacy curriculums on college students' entrepreneurial skill competence

The conceptual model as shown in Figure 1.

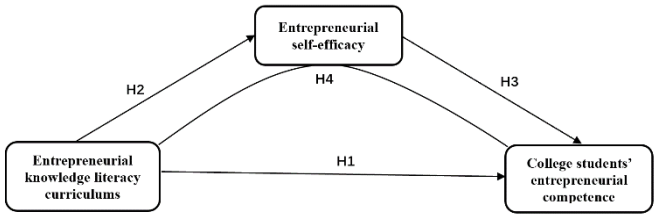

Figure 1. Proposed conceptual model of the study

4. RESEARCH METHODOLOGY

4.1 Sampling

To achieve the research objectives, this study selected 200 Chinese universities with typical national experience of innovation and entrepreneurship and about 3 million graduates every year as the total population. This is mainly because innovation and entrepreneurship in these universities are more representative and cutting-edge and they have more entrepreneurship knowledge literacy curriculums. The convenient sampling method is used to collect data in this study. Convenience sampling is a non-probabilistic sampling method in which respondents are randomly selected by the investigator at a specific time and location in a specific region for the research topic. An online questionnaire survey from March to May 2021 was conducted by the research. The research sample of this study is 400 college senior students with the typical experience university of innovation and entrepreneurship in China.

4.2 Questionnaire

There are two reasons for using the existing maturity scale. First, the existing scale has undergone a rigorous evaluation process to ensure its reliability and validity. Compared with the development of new scales, it can save researchers' time. Second, the results of this study can be easily compared with existing studies using the same scale. Specifically, the online questionnaire consists of four parts. The first part of the survey was about demographic characteristics. The next part of the survey collected relevant data from the university entrepreneurship curriculum. The third part collected data on entrepreneurial self-efficacy. The last part of the survey collected data about college students' entrepreneurial competence. A five-point Likert scale commonly used is used in this questionnaire survey (i.e., 1 = strongly disagree, 5 = strongly agree).

4.3 Methodology

This study will use two measuring tools of AMOS 23.0 and SPS.26.0 to test the model hypotheses mentioned. For analyzing confirmatory factor analysis (CFA) models, this paper will use maximum likelihood (ML) estimation method because this method is suitable for measuring variables in the population to multivariate normal distribution [27]. When the skew' absolute value is within 3 and the kurtosis' absolute value is within 7, It means that the model conforms to the normal distribution [28]. Furthermore, according to opinions of Anderson and Gerling, this paper will use the two-step modeling approach to do the theoretical testing when evaluating constructed measurement model and structural model through structural equation model [29]. The first stage is to comprehensively evaluate the construction validity of the model constructed in the paper. The second stage is to measure the fitting coefficient and path coefficient of the model constructed in the paper.

5. RESEARCH RESULTS

5.1 Characteristics of sampled students

In this paper, 440 questionnaires were randomly distributed to senior students of the typical experience universities of innovation and entrepreneurship, and 415 were recovered, of which 400 were effective, and the recovery efficiency of the questionnaire was 90.9%. According to statistics, there are 123 students from double-top universities, accounting for 30.7%. There were 146 undergraduate students, accounting for 36.6%. There are 131 students from higher vocational colleges, accounting for 32.7%, and the proportion of different types is relatively average; In terms of gender factors, 55.3% of the respondents were boys and 44.8% were girls; From the perspective of entrepreneurial intention, 153 students have entrepreneurial intention, accounting for 38.3%. 247 students have no entrepreneurial intention, accounting for 61.8%; In terms of whether they are satisfied with the entrepreneurship knowledge literacy curriculums offered by the universities, 271 people were satisfied, accounting for 54.3%. The general is 166 students, accounting for 41.5%. 8 students were less satisfied, accounting for 1.9%. 9 students were very dissatisfied, accounting for 2.3%. Most of the subjects tended to be moderate and satisfied.

Table 1. Reliability analysis of variables

Dimension	Item	CITC item deleted Cronbach's Alpha	Cronbach's Alpha
Entrepreneurial knowledge literacy curriculums (ECK)	ECK1	0.896	0.910
	ECK2	0.899	
	ECK3	0.899	
	ECK4	0.894	
	ECK5	0.897	
	ECK6	0.895	
	ECK7	0.896	
Entrepreneurial self-efficacy (ES)	ES1	0.733	0.807
	ES2	0.770	
	ES3	0.774	
	ES4	0.755	
College students' entrepreneurial potential competence (CPP)	CPP1	0.820	0.857
	CPP2	0.839	
	CPP3	0.838	
	CPP4	0.824	
	CPP5	0.817	
College students' entrepreneurial knowledge competence (CPK)	CPK1	0.832	0.868
	CPK2	0.840	
	CPK3	0.848	
	CPK4	0.842	
	CPK5	0.838	
College students' entrepreneurial skills competence (CPS)	CPS1	0.918	0.936
	CPS2	0.923	
	CPS3	0.929	
	CPS4	0.929	
	CPS5	0.926	
	CPS6	0.929	
	CPS7	0.927	

5.2 Reliability test

The measurement scales of independent variables, dependent variables, and intermediate variables in this study contain many items respectively, and all the items of the three variables adopt the 5-level scale. So, the reliability and validity test of the scales about measured content needs to be analyzed. The reliability test includes internal consistency and combination reliability of the scale. As shown in Table 1, Cronbach's α values of all constructs were close to or more than 0.8, indicating that each construct has high internal consistency and good reliability.

5.3 Validity test

The validity of the scale is tested by factor analysis. Before factor analysis, the adaptability test of the data is performed. The results show that the KMO test value of the survey data was 0.920, greater than 0.70. This indicates that the questionnaire is suitable for factor analysis. Bartlett sphericity test results show that the approximate Chi-square value is 6655.111 and the significance probability is 0.000 ($p< 0.001$). Therefore, it is considered that factor analysis can use the scale. So, the validity structure is good (Table 2, Table 3).

Table 2. KMO and Bartlett's test

Test Content		Result
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.920
Bartlett's Test of Sphericity	Approx. chi-square	6655.111
	df	378
	Sig.	0.000

In the process of Factor Analysis, Principal Factor Analysis was adopted to extract 5 common factors with eigenvalues greater than 1. The results showed that the total variance explanation rate of the 5 factors was 67.098%, more than 60%, so the validity of the scale was considered to be good.

Table 3. Rotated component matrix

Item	Component				
	1	2	3	4	5
ECK1		0.792			
ECK2		0.785			
ECK3		0.791			
ECK4		0.791			
ECK5		0.783			
ECK6		0.778			
ECK7		0.804			
ES1					0.771
ES2					0.766
ES3					0.696
ES4					0.747
CPP1				0.712	
CPP2				0.738	
CPP3				0.673	
CPP4				0.679	
CPP5				0.786	
CPK1			0.757		
CPK2			0.736		
CPK3			0.706		
CPK4			0.759		
CPK5			0.725		
CPS1	0.902				
CPS2	0.863				
CPS3	0.805				
CPS4	0.810				
CPS5	0.839				
CPS6	0.811				
CPS7	0.827				

5.4 Confirmatory factor analysis

Table 4. Factor analysis results

	Item	Estimate	S.E.	C.R.	P	CR	AVE
ECK	ECK1	.768				.91	.59
	ECK2	.746	.062	15.404	***		
	ECK3	.736	.062	15.153	***		
	ECK4	.801	.063	16.738	***		
	ECK5	.766	.062	15.891	***		
	ECK6	.793	.064	16.525	***		
	ECK7	.770	.062	15.404	***		
ES	ES1	.780				.804	.507
	ES2	.668	.068	12.483	***		
	ES3	.688	.065	12.863	***		
	ES4	.726	.067	13.535	***		
CPP	CPP1	.782				.858	.549
	CPP2	.677	.060	13.552	***		
	CPP3	.698	.058	14.008	***		
	CPP4	.768	.062	15.606	***		
	CPP5	.772	.057	15.703	***		
CPK	CPK1	.799				.869	.570
	CPK2	.749	.064	15.617	***		
	CPK3	.715	.061	14.784	***		
	CPK4	.729	.064	15.116	***		
	CPK5	.778	.061	16.344	***		
CPS	CPS1	.909				.936	.678
	CPS2	.855	.038	24.978	***		
	CPS3	.781	.035	20.763	***		
	CPS4	.784	.038	20.912	***		
	CPS5	.820	.037	22.836	***		
	CPS6	.785	.037	20.965	***		
	CPS7	.820	.038	24.978	***		

Table 5. Discriminative validity

	CPS	CPK	CPP	ES	ECK
CPS	0.823				
CPK	0.258	0.755			
CPP	0.377	0.411	0.741		
ES	0.195	0.362	0.482	0.712	
ECK	0.101	0.240	0.226	0.177	0.768

Table 6. Correlation analysis

	ECK	ES	CPP	CPK	CPS
ECK	1				
ES	.265**	1			
CPP	.345**	.634**	1		
CPK	.438**	.567**	.658**	1	
CPS	.114*	.188**	.372**	.303**	1

Note: ** at 0.01 level (two-tailed), the correlation was significant.

The above table is the rotated factor matrix table. The 28 problem choices can be classified into 5 types of factors by orthogonal rotation of the maximum variance method. The load of each measurement item is higher than 0.5, and there is no high double factor load. In addition, the measurement items in each dimension were clustered together according to theoretical distribution, indicating that the questionnaire had good content validity.

Structural equation modeling in AMOS 23.0 was used for factor analysis of variables. The analysis results revealed that the factor load of all items was close to 0.7. The average variance extraction (AVE) exceeded 0.5. The combination reliability exceeded the critical value of 0.7 and the result indicated that the measurement scale of this study had good convergence validity (Table 4). The AVE of the three variables was greater than 0.5, and the square root of AVE of each variable was greater than the correlation coefficient between these variable and other variables (Table 5, Table 6). Therefore, the questionnaire has good discriminant validity. In all, these scales had high reliability and validity, the recovered data was reliable, and the subsequent analysis could be carried out.

5.5 Hypothesis test

In this study, AMOS 23.0 is used to test the fitting degree of the sample data. It was found that the fitting index: $\chi 2$ / DF (1.808) < 3, NFI (0.909), CFI (0.957), GFI (0.899) and TLI (0.953) are greater than 0.9, RMSEA = 0.045 < 0.08. It showed that the sample data had the good fitting degree and the model setting was reasonable (Table 7).

As can be seen from the Table 7, ECK and ES have a significant positive relationship, that is, ECK can effectively impact ES (β=0.266, t=4.501, P<0.001); ECK can effectively impact CPP(β=0.182,t =3.717, P <0.001); ECK can effectively impact CPK(β=0.299,t =5.908, P< 0.001); ECK and CPS haven't a significant positive relationship (β=0.059, t =1.059, P =0.289 > 0.05); ES can effectively impact CPP(β=0.644, t =10.273, P< 0.001); ES can effectively impact CPK(β=0.548, t =9.286, P < 0.001); ES can effectively impact CPS(β=0.247, t =4.198, P <0.001). In other words, the results of the structural equation model analysis show that entrepreneurship knowledge literacy curriculum can effectively promote college students' entrepreneurial competence and entrepreneurial self-efficacy. Specifically, entrepreneurship knowledge literacy curriculum can effectively promote entrepreneurial potential competence and entrepreneurial knowledge competence. But it has no effect on entrepreneurial skill competence. Entrepreneurial self-efficacy can effectively promote the three entrepreneurial competences.

5.6 Mediating effect hypothesis testing results

In this study, Amos21.0 software was used to analyze data. The bootstrap method was used to calculate a 95% confidence interval and test the mediation effect through 2000 iterations (Table 8).

From the Table 8, the effect value of the mediation path [Eck-ES-CPP] is 0.171, and the upper and lower 95% confidence interval [0.079-0.268] does not include 0, and P<0.05, indicating the existence of the mediation effect, so the hypothesis is valid. When the mediation variable and independent variable act on the dependent variable at the same time, the independent variable still strongly related to the dependent variable, so it can be identified as partial mediation. The effect value of [Eck-ES-CPK] is 0.146, and the 95% confidence interval is [0.070-0.234], excluding 0, and P<0.05, indicating that the mediation effect existed, so the hypothesis was valid. When the mediation variable and independent variable act on the dependent variable at the same time, the independent variable still strongly related to the dependent variable, so it can be identified as partial mediation. The effect value of [Eck-ES-CPS] is 0.066, and the 95% confidence interval is [0.025-0.128], excluding 0, and P<0.05, indicating that the mediation effect existed, so the hypothesis is valid. When the mediation variable can effectively promote the dependent variable and the independent variable can effectively promote the dependent variable, it can be considered a complete mediation. In other words, the results of the structural equation model analysis show that entrepreneurial self-efficacy has the mediation effect of entrepreneurship knowledge literacy curriculums on college students' entrepreneurial competence. Specifically, entrepreneurial self-efficacy has the partial mediation effect of entrepreneurship knowledge literacy curriculums on college students' entrepreneurial potential competence, and entrepreneurial knowledge competence. Entrepreneurial self-efficacy has the complete mediation effect of entrepreneurship knowledge literacy curriculums on college students' entrepreneurial skill competence.

Table 7. SEM path analysis data

Hypothesis path			Non-standardized coefficient	S.E.	C.R.	P	Standardized coefficient
ES	<---	ECK	0.301	0.067	4.501	***	0.266
CPP	<---	ECK	0.207	0.056	3.717	***	0.182
CPK	<---	ECK	0.283	0.048	5.908	***	0.299
CPS	<---	ECK	0.090	0.085	1.059	0.289	0.059
CPP	<---	ES	0.649	0.063	10.273	***	0.644
CPK	<---	ES	0.459	0.049	9.286	***	0.548
CPS	<---	ES	0.337	0.080	4.198	***	0.247

Table 8. Mediating effect hypothesis testing results

Research hypothesis	Estimate	Lower	Upper	P
ECK-ES-CPP (Standardized)	0.171	0.079	0.268	0.002
ECK-ES-CPK (Standardized)	0.146	0.070	0.234	0.001
ECK-ES-CPS (Standardized)	0.066	0.025	0.128	0.001

6. CONCLUSIONS

The results show that in typical experience universities, entrepreneurship knowledge literacy curriculums directly and significantly affect college students' entrepreneurial competence. However, entrepreneurship knowledge literacy curriculums do not affect entrepreneurial skills competence. entrepreneurship curriculum learning affects college students' entrepreneurial competence in two ways. First, entrepreneurship knowledge literacy curriculums directly affect entrepreneurship competence. Second, the entrepreneurship curriculum influences entrepreneurial competence through the mediating effect of entrepreneurial self-efficacy. entrepreneurial self-efficacy has a partial mediating effect on the impact of the Entrepreneurship knowledge literacy curriculum and college students' entrepreneurial competence.

This study has a certain degree of research significance. In academic research, this study is a supplement and improvement of the research theory of entrepreneurial competence. Research on the Relationship of Entrepreneurship knowledge literacy curriculum on entrepreneurial competence provides a new research perspective for the study of entrepreneurial competence. Based on the empirical study of the survey data in China, this study can provide Chinese material for the theory of global entrepreneurship management and improve the theoretical system of global entrepreneurship management. In practice, the results of this study provide valuable information on how to improve the teachers' and students' understanding of the importance of the Entrepreneurship knowledge literacy curriculum in China and change the entrepreneurial competence behavior of college students. It is bound to promote non-typical experience universities of innovation and entrepreneurship to learn typical experiences and practices, develop entrepreneurship knowledge literacy curriculums, and cultivate college students' entrepreneurial competence.

This study puts forward some implementation suggestions based on the research conclusions.

First, given the important role of the Entrepreneurship knowledge literacy curriculum in cultivating college students' entrepreneurial competence, Chinese colleges and universities should give priority to entrepreneurial theory curriculums and carry out entrepreneurship curriculum system construction more efficiently. Second, for typical experience universities of innovation and entrepreneurship, we can further enrich the contents of the three curriculums based on the existing entrepreneurship knowledge literacy curriculums. Third, for non-typical experience universities, they should learn from the experience of typical experience universities in the construction of the entrepreneurship curriculum system, vigorously introduce and train entrepreneurship theory teachers, and develop more entrepreneurship knowledge literacy curriculums.

In the future, researchers who are interested in this research direction can make further exploration from the perspective of entrepreneurial culture and atmosphere, the perspective of other mediating variables and moderating variables and the perspective of the content construction and teaching rules of entrepreneurial development curriculums.

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