



**Educational Innovation Management of Education
Administrators under the COVID-19 Pandemic by Liaoning
University, China**

**การจัดการนวัตกรรมทางการศึกษาของผู้บริหารการศึกษาภายใต้การระบาด
ของ COVID-19 โดย มหาวิทยาลัยเหลี่ยวหนิง ประเทศจีน**

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Received June 9, 2023; Revised June 23, 2023; Accepted: June 30, 2023



Abstract

The objectives of this research were (1) to study the level of educational innovation management of educational administrators under the COVID-19 epidemic of Liaoning University, China; and (2) to compare educational management innovation management of educational administrators under the COVID-19 pandemic. The research was a Quantitative research. The population was the administration of the study with a total of 150 people by opening Krejcie and Morgan tables to obtain a simple sample of 108 people. Statistics used to analyze the data were percentage, mean, standard deviation and testing. It was found that 1) The level of educational innovation management of educational administrators under the



situation of the COVID-19 epidemic. The highest average score was the educational system, followed by the educational operation 2) Gender with no gender differences in six aspects of educational innovation management Educational Administrator of Pandemic of Liaoning, University of China. There was no statistically significant difference. from an average point of view Males and females of Liaoning University basically had the same level of identification in six areas and educational qualifications. There was no difference in education level in six areas of executive education innovation management. Liaoning University's study was not statistically significant. and master's degree students are higher This indicates that they are more optimistic than undergraduate students in six areas.

Keywords: Education Innovation Management; Educational Administrators; Liaoning University; COVID-19 epidemic

Introduction

According to Liaoning University Administrative Level Information for Common Problems in Management current problems in education management are found that as follows: the information standard of education management is not perfect; Low degree of intelligence; The lack of systematic and refined management of data makes it difficult to support timely and accurate educational decision-making; The education supervision system is not in place, so it is difficult to carry out dynamic supervision. In the second decade of the 21st century, higher education management research has made many achievements in the fields of higher vocational education, private higher education, the construction of Applied Undergraduate Colleges and universities, the construction of world-class universities and so on. However, in this period, higher education management is more obviously affected by four factors: the national requirements for the improvement of university governance ability; Reform of talent training mode; The change of resources and environment in Colleges and Universities under the background of the integration of industry and education and the combination of schools and enterprises; Technology, especially the application of Internet and big data in higher education management. At the moment for the improvement of Liaoning University effectiveness university must be driven to the

achievement as the same as (Everard, 2004) study about effective management of education organization to enhance focus with 3 factors as 1) Managing people such as the manager as a leader, motivate people, taking and implementing decisions, managing meeting, development staff, managing conflict, 2) Managing the organization such as the organization dimension, teams building, managing and adapting curriculum, risk management, management resource, Managing the environment, 3) Managing change such as change management based global context, management structure based on transition management, developing a plan, At present, related with (Che Na et al., 2020).

China's higher education management pays attention to the impact of the above three factors from the aforementioned problems, the researcher pays attention to educational innovation management to develop the university to be effective in driving under the impact of the global context towards high performance in the organization. Liaoning University executives need to create a strategy to be effective under the impact of COVID-19. and the impact of global problems and succeed for world reputation (Liaoning University, 2022) to guide the educational administration of Liaoning University in improving policy, strategy and management to be effective.

Research Objectives

1. To study the level of educational innovation management of Educational Administrators under COVID-19 epidemic.
- 2 . To compare administration level of the Educational innovation management of Educational Administrators under COVID-19 epidemic by Liaoning University Province,China ,classified by gender and education background.

Scope of Population/Sample

The population used in this study was administration level at Liaoning University, with a total of 150 people.

Sample group was teachers of 108 persons, of Liaoning University, in the academic year 2022. The sample was determined by the sample size using the



Krejcie and Morgan tables Krejcie & Morgan and using simple random sampling with figure 1 as below

research tools

Creating a questionnaire

1) Examine research and literature related to the concept of educational innovation management. Analyze factors related to the concepts and theories of educational administration. including related research To prepare a questionnaire that covers the content and scope of the research.

2) Review questionnaires and get expert feedback.

3) Validation of the questionnaire contents was reconfirmed by the IOC, after which it was reconfirmed by an experimental questionnaire on 30 non-randomized populations. The validity of the alpha coefficients was analyzed by Cronbach. (1990)

4) Collecting data through a questionnaire divided into 2 main parts as follows

Section 1: Demographics Chapter 2 Management of educational innovation 65 questions Using a 5-point questionnaire, it consists of the following 5 sections:

Research Instruments

Research tools: 1) Interview 2) Questionnaire 3) Other Quantitative samples Questionnaire consisted of part 1 general status of the respondents. It is a survey part 2. Educational innovation management of educational administrators under the COVID-19 virus epidemic of Liaoning University, China. The researcher studied from the concept of behaviorism of B.F. Skinner as a scale model. (Rating Scale) 5 levels and part 3, other opinions and suggestions are open-ended (Open Ended), and the researcher has used the questionnaire to determine the image quality of the tool, which are: 2) Bring the revised questionnaire and present it to 3 experts to check the consistency of the content by finding the consistency of the objective with the question (Index of Item-Objective Congruence: IOC). IOC values between 0.80–1.00 and 3) 30 sets of trials using the tool with non-sample populations, which the evaluation results have discriminant power between 0.25–0.75 and the reliability of the questionnaire by Cronbach's method, which the evaluation results Confidence has a confidence value of 0.95.

3. Data collection includes data collection from 1) Primary Data, i.e. data obtained from in-depth interviews with target groups and questionnaires; 2) Secondary Data, i.e. data obtained from the collection of various documents (Document Research), such as books, textbooks, academic documents, research papers, and related electronic media, etc.

4. Data analysis, i.e. data analysis is divided into 2 parts: 1) qualitative data analysis. By bringing information obtained from in-depth interviews with target groups and collecting various documents for content analysis (Content Analysis) 2) Quantitative Data Analysis By bringing the data obtained from the distribution of questionnaires to be analyzed by using a statistical program to find variance or one-way analysis of variance or testing (F-test).

5. Statistics used in the research were descriptive statistical programs consisting of percentage, mean, standard deviation, and comparison by t-test and t-test. F value (F-test)

Opinion questionnaire of educational innovation management of educational administrators under covid-19 epidemic of Liaoning University has steps to create as follows.

1) Learn how to create a questionnaire. The researcher has methods and procedures for doing this, which is to study the data from documents, books, journals, research studies and questionnaires that have been previously researched to use as a guideline for creating the questionnaire as follows:

1.1) Questionnaire of The relationship between emotional creativity and innovative behavior-the role of creative self-efficacy and leadership in stimulating creativity-Liu Mingjie , subject psychology and education.

1.2) Questionnaire of A comparison of Likert scale and visual analogue scales as response options in children's questionnaires.

1.3) Questionnaire of How to ask about patient satisfaction? The visual analogue scale is less vulnerable to confounding factors and ceiling effect than a symmetric Likert scale

1.4) Questionnaire of Five Degrees of Happiness: Effective Smiley Face Likert Scales for Evaluating with Children - Lynne Hal, (Lynne Hal et al., 2016)



2) Create a questionnaire as a checklist including two Part as Part one for General information of sample and Part two as a rating scale, amount 65 questions, divided into 6 aspects, There are 10 questions in the first part, 11 questions in the second part, 11 questions in the third part, 11 questions in the fourth part, 10 questions in the fifth part and 11 questions in the sixth part by the researcher assigning scores to 5 levels according to the Likert method. How to ask about patient satisfaction? The visual analogue scale is less vulnerable to confounding factors and ceiling effect than a symmetric (Likert, R, 1932) as follows Point value, opinion level

3) Take the completed questionnaire, amount 65 questions to reconfirm content validity of questions one by one with IOC (Index of Item Objectives Congruence) by 3 the experts to verify the correctness of the content. The IOC content validity of questions one by one in the item value between 0.67-1 that mean the question are content validity in appropriate to collect the data.

Section 1: Data Analysis Results of Research Objectives

Section 2: A summary of the survey data of in educational innovation management of educational administrators under covid-19 epidemic of Liaoning University

Section 1 Result of Content Analysis for Variables

From the literature Review, the Researchers studied the Education Contents, Education System, Education implementation, education evaluation, education innovation., including the related research as 5 components in Educational innovation management component

Section 2 Result of Date Analysis on Research Objective 1

Part I: Result of Data Analysis on Questionnaire: Demographic Information

The researchers conducted a questionnaire survey of educational innovation management of educational administrators In Liaoning University. Among them, a total of 108 questionnaires were distributed, and 108 valid questionnaires were recovered, accounting for 100%. Through random sampling, a total of 105 questionnaires were selected for research, accounting for 97.2% of the total number of questionnaires. it was summarized that among the 105 students in Liaoning University 25 were males, accounting for 23.8% of the total, and 80 were females,



accounting for 76.8% of the total. On the other 94 samples were undergraduate students, taking up 89.5% and 11 samples were postgraduates, representing 10.5%.

Section 3 Result of Data Analysis on Research Objective 2

1. Gender Comparison in the Education Management and Innovation under COVID-19 in Liaoning University

Table 1 Result of Data Analysis on Questionnaire: Gender Comparison

Variable	n	Mean	S.D.	T	P
Influence of COVID					(n=105)
Male	25	2.95	0.75	0.828	.409
Female	80	3.00	0.51		
educational innovation					
Male	25	3.17	0.62	1.20	.233
Female	80	3.06	0.52		
education Content					
Male	25	3.79	0.52	.401	.490
Female	80	3.77	0.44		
education System					
Male	25	3.80	0.50	.438	.662
Female	80	3.77	0.44		
education Implementation					
Male	25	3.83	0.46	1.107	.207
Female	80	3.79	0.43		
education Evaluation					



Male	25	3.72	0.32	.706	.482
Female	80	3.76	0.38		

From Table 1, it was summarized that 1) There is no gender difference in the six aspects of the educational innovation management of Educational Administrators under COVID-19 epidemic of Liaoning University that the difference was not statistically significant. 2) From the average point of view, Males and Females of Liaoning University have basically the same degree of identification with the six aspects.

2. Education level comparison in the Education Management and Innovation under COVID-19 in Liaoning University (n=105)

Table 2 Result of Data Analysis on Questionnaire: Education level comparison

Variable	n	Mean	S.D.	T	P	(n=105)
Influence of COVID						
undergraduate	94	2.88	0.42	-.971	.334	
postgraduate	11	3.00	0.51			
educational innovation						
undergraduate	94	3.07	0.41	-.848	.339	
postgraduate	11	3.84	0.50			
Education Content						
undergraduate	94	3.77	0.22	-.936	.351	
postgraduate	11	3.84	0.23			
Education System						
undergraduate	94	3.77	0.31	-.884	.379	
postgraduate	11	3.86	0.34			

Education Implementation					
undergraduate	94	3.80	0.14	-1.083	.281
postgraduate	11	3.85	0.23		
Education Evaluation					
undergraduate	94	3.72	0.32	-.427	.670
postgraduate	11	3.76	0.38		

From Table 2, it was summarized that 1) There is no Education level difference in the six aspects of the educational innovation management of educational administrators in Liaoning University that the difference was not statistically significant. 2) From the average point of view, the average value of master students is higher, indicating that they are more optimistic about the score of the questionnaire than undergraduates with the six aspects .

Conclusion

1 . Under the influence of COVID-19, there is no significant difference between men and women in education major of Liaoning University on the influence of the new crown, educational innovation ability, education content, Education system, educational implementation and education evaluation.

2 . Under the influence of the new crown, there is no significant difference between postgraduates and undergraduates majoring in education of Liaoning University in the influence of the new crown, New media had positive effects on classroom teaching: (1) the acceptance of new media was high; (2) the classroom teaching effect was improved; and (3) is beneficial to the development of one's learning ability. The negative effects of new media on classroom instruction include (1) high rates of mobile phone use in the classroom; (2) the use of new media in the classroom emphasizes entertainment, (3) it directly affects learning outcomes, and (4) it increases cognitive inertia.



Discussion

Discussion of Research Objective 1

Educational innovation management of educational administrators in Liaoning University has 5 components: educational objectives; Study content, education system, study implementation and evaluation showed that the problems in educational innovation management of educational administrators in Liaoning University were consistent with other research findings.

This finding is consistent with a study by author Zhang Wen (2019) that analyzed the problems encountered in this field. Education management field: teacher structure is incomplete Learning goals are not clear enough. outdated curriculum system single study method incomplete educational facilities It is necessary to improve the level of education management. Educational assessment systems need to be more standardized. In addition, as found by researchers (Che Na et al., 2020), problems in the management of educational curriculum must be addressed. A large part of education management includes education management and education curriculum. The system is not perfect Training objectives are unclear. The curriculum of study and education is lacking in practice. and the content of practical majors is obsolete and the method is the same, which is consistent with (He Zi Yun & Ntapat Worapongpat, 2023). Taking Guangdong University as an example Interdisciplinary Journal of the Humanities and Social Sciences

In addition, according to researcher (Wang Jiaxun, 2016) problems that exist in education innovation and education management include unreasonable curriculum and incomplete setting system. The scope of the course is not covered. The specific content of this course is still lacking. course disqualification

Discussion of Research Objective 2

The results of educational management problems and educational innovations were similar. It shows that the students of Liaoning University are rational and resolute in the face of educational problems. Discovery and research by Wang Lesheng, a gender-dependent researcher. It was concluded that boys' attitudes towards career issues were not significantly different from those of girls (2014, abstract page). Their effects on special education problems corresponding to

different educational levels (2001) and (Naphat Worapongphat et al., 2022). Innovation and Educational Technology for Developing Academic Achievement and Satisfaction in Using Social Networking Media. "Smart Cabinet with Digital Technology" on Behavior According to Norms and Culture of Prathomsuksa 5 Students at Wat Prakhao School

Recommendation for Policies Formulation

Universities should set policies in the following areas:

- 1) Educational Content In terms of educational content, attention should be paid to the combination of the actual content of education management and basic education. therefore used in educational practice from practice to practice To cultivate a combination of academic ability and practical ability with educational management and innovation.
- 2) Educational system Education and the study of the overall form of educational organization, including personnel, property, information and organization, can be divided into institutional education and non-institutional education as a whole. This system comprises several parts of the school education system. education system for children outside school and the adult cultural education system.
- 3) Management education majors must be conducted from the market and practice combined with the regional economic characteristics of Liaoning Province. Use social and economic needs and market dynamics as benchmarks.
- 4) Educational Actions The implementation of the talent training model of Liaoning University must be carried out from a systematic perspective, forming a scientific concept, reforming the management mechanism, actively innovating the management system, rational use of the infrastructure. , create an application system, follow the training of teachers and ensure the smooth implementation of the training model. ability to meet the needs of society
- 5) Educational Evaluation Implementation of the scope of authority and criteria for assessment of each position is well practiced. deepening education staff reforms Financial support and allocation Integration and use of educational resources



Committed to promoting teacher evaluation system education management system Formulate a comprehensive talent training plan. and support the educational financial system Reforming the education system in other areas meanwh

Recommendation for Practical Application

1. Educational Administrators lead by example

Educational innovation management of Educational Administrators refer to the administrators who have the highest decision-making responsibility in the university, usually the principal. The principal is first and foremost an educational strategist, characterized by having individualized school-running ideas and ideas, a strong desire for achievement, and the pursuit of pioneering and innovation; secondly, as an intermediary between superiors and school work, principals should have a strong understanding and implementation The ability of superior policy, coordination and relationship with superior. In the end, the principal must not only master all the complex work of the school, a grass-roots educational organization, but also learn to delegate power, so as to be able to devise an overall strategy more detachedly, and to mobilize the enthusiasm of his subordinates, so that every aspect of the work can be arranged comprehensively and thoughtfully.

2. Educational Administrators' management for public class teachers

At present, the public basic courses in my country's higher education are mainly composed of ideological and political theory, Chinese, foreign language, physical education, mathematics and computer courses. The role of public basic courses in the cultivation of higher vocational talents mainly includes the following aspects:

First of all, as the foundation of professional knowledge learning, public basic courses play an important role in laying the foundation for the cultivation of higher talents. The public basic course is the basis for learning all natural sciences and social sciences, and is a necessary culture for learning and mastering other disciplines in modern society. The cultivation, development and improvement of any kind of skill must be based on a certain cultural foundation. If students want to learn and master modern production, management or service technology, they must have high school knowledge and further expand their basic knowledge on the basis of it. What's more, the foundation of students recruited by ordinary undergraduate



colleges in my country is generally relatively poor, and the comprehensive quality is relatively weak, and it is necessary to strengthen the study of public basic courses.

The arrangement of public basic courses is to cultivate students' basic abilities and adapt them to the needs of market changes. In modern society, the industrial structure and technological structure are changing rapidly, and occupations and positions are also constantly changing. It has become increasingly impossible for a person to do one job for a lifetime. Individuals cannot predict what kind of work they will be engaged in in the future. If they only master a professional skill for a relatively fixed position, it will inevitably make the major too narrow, and the professional knowledge and ability will be limited, making it difficult to adapt to the ever-changing job market. Therefore, learning the basic courses well is the prerequisite for changing jobs and starting a business in the future. Public education can only be used as a part of lifelong learning for each student, so education must reserve a certain development space for students to receive higher-level education and lifelong learning. In this regard, public basic courses have an irreplaceable role.

3. Educational Administrators' management for Professional Teachers

The education activities of professional course teachers are common and regular. They can take advantage of the opportunities for students to study professional courses to help students reasonably plan their career development goals. skills training, and cultivate students' career choices. Help them locate accurately and better find their career goals.

Professional course teachers have a comprehensive understanding of their majors, have a wealth of professional materials, are familiar with the professional characteristics and social needs of the disciplines they hand in, and are targeted and effective in the student employment guidance. At present, the employment difficulties of college students in my country are mainly reflected in the shallow professional knowledge, lack of professional skills, and weak social practice ability. The theoretical achievements and social experience taught by professional teachers have laid a solid foundation for them to succeed.

Professional course teachers have been engaged in professional education research for a long time. Some teachers with rich education experience and high



academic level have a high status and influence in the society. They can use the vast interpersonal communication space to provide graduates with a more effective practice base, improve their social practice ability, and narrow the gap between graduates and social needs.

Professional teachers have an authoritative position in the hearts of students, especially professional teachers with high education level, who are more loved and admired by students. Their words, deeds, and guiding directions will directly affect students' ideological dynamics. With the active participation of professional teachers, the effect of employment work will become more significant.

Recommendation for Further Research

Further strengthen and improve the educational management and educational innovation of Educational Administrators in Liaoning University, so that students can develop into high-quality talents in an all-round way, and further provide theoretical data and basis for the country to cultivate high-quality talents. Further research should be carried out to improve the efficiency of education management more effectively, and how to recruit more specialized professional teachers with professional skills and noble ethics. At the same time, we should study how to apply for more and better education funds and good projects from the state and the Ministry of Education. This kind of project includes both the introduction of high-caliber talented teachers and the construction of an internship cooperation platform for the benefit of students. Ultimately, the improvement will allow teachers and students to benefit from the beautiful educational platform of Liaoning University, regardless of external knowledge and skills or internal spiritual satisfaction.

References

He Zi Yun & Ntapat Worapongpat. (2023). The Impacts of New Media on Classroom Teaching Management of Administrators in Educational Management Taking Guangdong University as an Example. *Journal of Multidisciplinary in Humanities and Social Sciences*, 6(1). 22-39.

Ntapat Worapongpat et al. (2022). Innovation and educational technology to improve academic achievement and satisfaction in using social networking media.

"Intelligent digital technology cabinet" on conducting oneself according to norms and culture of Prathomsuksa 5 students at Wat Phra Khao School (Pranukroh). *Journal of MCUPhilosophy Review*, (5)(2). 22-32.

Che Na et al. (2020). Research on online teaching satisfaction and analysis of influencing factors of examination scores during the epidemic countermeasure. *Medical education management*.

Everard et al. (2004). *Effective school management*, Pual Chapman Publishing, Great Britain.

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 140, 1-55.

Lynne Hal et al. (2016). Five Degrees of Happiness: Effective Smiley Face Likert Scales for Evaluating with Children. Retired from https://www.researchgate.net/publication/305726958_Five_Degrees_of_Happiness_Effective_Smiley_Face_Likert_Scales_for_Evaluating_with_Children

Wang Jiaxun. (2016). *Research on the new media approach of Ecological Civilization Education*. China University of Geosciences.

