

Research on the Integration of Educational Resources in Higher Education Administration

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Abstract In order to improve the integration of higher education resources, local governments should strengthen the administrative management of higher education and propose measures to promote social governance. Therefore, from the perspective of local autonomy, this paper puts forward the following hypotheses about local government behavior and public policy adjustment: whether local autonomy affects the adjustment of higher education policy, whether the role of local intervention policy and legal improvement overlaps, whether the impact on resource integration is perfect, whether the public supervision mechanism is perfect, whether the public plays a role in promoting the integration of educational resources, and whether local laws and regulations have an impact on the integration of educational resources, the educational environment, and the level of local governance. The results show that the policy intervention of local governments and the improvement of laws and regulations have a great impact on the integration of educational resources, which can optimize the educational structure and form a good educational environment, which is the direct factor of the integration of educational resources. Therefore, local governments should strengthen the introduction of intervention policies, improve laws and regulations, and guide the public to participate in the integration of education.

Keywords: • higher education • administrative management • educational resources • employment mechanism • personnel specialization

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1 Introduction

In the process of local autonomy, colleges and universities undertake the tasks of cultural ideology and political education, which represents the level of social governance and the effect of local autonomy, so the integration of university resources is an objective reflection of public management and a comprehensive embodiment of local political development (Al Abri, Bannan, & Dabbagh, 2022). In the process of local governance, local education has institutionalized administrative management, reformed the education sector and made education policies dynamic, and played a regulating role in comprehensive management. Educational resources are an indispensable foundation for local self-government, and educational resources are integrated in accordance with the government system, relevant laws and regulations (Ambite et al., 2021), which can maximize the integration of university education resources with local governance, and provide theoretical basis and practical cases for local governance experience sharing. Therefore, strengthening the integration of educational resources in higher education management has become an important topic for local autonomy (Bernstein, Bhardwaj, Pfoh, & Yudelevich, 2021). Due to the different levels of economic and political development in different regions, as well as the imperfection of education laws and regulations, the disadvantages of unreasonable allocation of higher education resources have gradually been revealed, which has seriously affected the resource integration of higher education (Demetriou, 2023). From the perspective of local autonomy, this paper takes the integration of higher education resources as the research object, analyzes the local education management work, and finds out the factors affecting the integration of educational resources in combination with the existing education laws, regulations and intervention policies, aiming to promote the level of local governance and the sustainable development of higher education.

2 Literature review

2.1 The promotion of national competitiveness by higher education

In today's social development, higher education has become one of the key factors of national competitiveness. The integration of administrative and educational resources in higher education is of great significance for improving the quality of education, improving the level of scientific research, and cultivating outstanding talents (Ermolaeva et al., 2022). In the context of educational reform and resource integration, whether the administrative management of colleges and universities can operate normally is mainly reflected in whether the educational activities and business activities of colleges and universities can operate normally, and whether the resources of colleges and universities can be effectively allocated. In the literature research at home and abroad, the integration of educational resources in higher education administration has become increasingly prominent (Essig, Watts,

Beck Dallaghan, & Gilliland, 2020). First, the distribution of resources is uneven, with some regions and universities having excess resources, while some regions and universities are lacking in resources, and the development of education quality is uneven. Some foreign scholars have shown that some universities are too rich in resources, many academic resources are idle, and some universities are lacking in resources (Estrada-Molina, Fuentes-Cancell, & MoralesnAff, 2022), if they can share educational resources, these problems can be well solved.

2.2 Insufficient interdisciplinarity in higher education

Lack of interdisciplinary integration, although higher education institutions have made certain achievements in the construction of disciplines, there are still deficiencies in interdisciplinary integration, university administration plays an important role in educational work, and the traditional administrative management mode has gradually exposed its shortcomings (Gazarian, Cronin, Jahng, & Tapalyan, 2020), has been unable to meet the needs of the development of the times, the school needs to establish a sense of innovation, learn to look at the problem from the perspective of development, adapt to the development and changes of the times, adopt scientific and reasonable means, and continuously improve the efficiency of educational administration, so as to effectively integrate the educational resources of higher education administration, so as to better play the important role of administrative management (Gómez, 2023). Third, the management system is not perfect, China's higher education administrative management system is not perfect, there are problems such as chaotic management and unclear responsibilities, there are still many problems in the administrative management of major universities in China (Guraliuk, Zakatnov, Lapaenko, Ahalets, & Varaksina, 2023), such as overlapping administrative functions of functional departments, poor work coordination, the insufficient professional ability of management personnel, rigid employment mechanism, imperfect administrative management system, etc. In order to adapt to the impact of the new era of knowledge society and innovation and development on administrative management, colleges and universities must give full play to the leading function of administrative management to reflect the value of university education, cultivate leading talents for the future, and provide strategic and forward-looking thinking for economic and social development (Hunkler, Edele, & Schipolowski, 2021).

2.3 The level of higher education administration needs to be improved

The integration of educational resources in higher education administration is of great significance to improve the quality of education, improve the level of scientific research, and cultivate outstanding talents. In order to effectively promote the development of higher education in China (Koval & Besklinskaya, 2020), adapt to the increasingly fierce international competitive environment, and

improve the quality and efficiency of higher education in China, government must fully understand the importance and necessity of rational allocation of educational resources for higher education administration (Kryvtsova et al., 2022), so as to better realize the healthy, efficient and orderly development of higher education in China. In the face of current problems such as uneven distribution of resources, imperfect employment management mechanisms and insufficient interdisciplinary integration, the administrative departments of colleges and universities should actively take measures to solve these problems and ensure that the educational resources of higher education administration are fully utilized (Lauermann & Mallmann, 2023).

3 Theoretical analyses

3.1 Research hypothesis

Whether there is any overlap between local autonomy and intervention policies, and the impact on resource integration;

Local autonomy and intervention policies are important supports for the operation of colleges and universities, guiding the daily management, teaching and scientific research, student services and other aspects of the work of colleges and universities. However, with the continuous improvement of the scope of local autonomy and the continuous change of external intervention policies, the overlap between local autonomy and intervention policies has gradually emerged, which will undoubtedly have a certain impact on the integration of university administrative education resources. Make the following hypotheses:

H1: Whether local autonomy affects the management of higher education, whether the role of local intervention policy and legal improvement overlaps, and whether the impact on resource integration is perfect;

Whether the supervision mechanism of the public is perfect, and whether the public plays a role in the integration of educational resources;

The public is also one of the important factors affecting the integration of educational resources. If there is no public supervision mechanism for local self-government, there will be unreasonable supervision allocation, waste or insufficient human resources, resulting in improper supervision of the integration of educational resources. In this respect, the following hypothesis is formulated.

H2: Whether the co-supervision mechanism is perfect, and whether the public plays a role in promoting the integration of educational resources;

The impact of local laws and regulations on education management;

The integration of educational resources by local laws and regulations has a positive effect on promoting educational administration, which can improve administrative efficiency, promote educational equity, improve educational structure, enhance educational competitiveness, and promote educational innovation. It can be seen that local laws and regulations guide the administrative departments of colleges and universities, actively promote the integration of educational resources, optimize the allocation of resources, and promote the all-round development of education. Make the following hypotheses:

H3: Whether local laws and regulations have an impact on the integration of educational resources, the educational environment, and the level of local governance.

3.2 Model building

$$Y_{it} = \alpha_0 + \alpha_1 AM_{it} + \alpha_2 EM_{it} + PS_{it} + \alpha_3 \sum Controls_{it} + \mu_t + \lambda_i + \varepsilon_{it} \quad (1)$$

Among them, the explanatory variables, Y_{it} is the integration of educational resources in Nanjing, Shenzhen and Liaoning provinces, respectively, and the core explanatory variables, AM_{it} , EM_{it} , and PS_{it} are the administrative management, employment mechanism and personnel specialization of Nanjing, Shenzhen and Liaoning provinces. In order to verify whether there is an influencing and influencing relationship between the core explanatory variable and the explanatory variable, $Controls_{it}$ was added, which were regional economic development level (REDL), education quality (EQ), policy environment (ON), and socio-cultural climate (CA), with α_0 as a constant term, μ_t as a time-fixed effect, λ_i as an individual fixed effect, and ε_{it} as a random error term.

3.3 Data collection

This paper takes 15 universities and government agencies in Nanjing, Shenzhen, and Liaoning provinces as the research object, and the survey data is from 2019 to 2023, with public supervision, social participation, laws, regulations, and intervention policies as the starting point, and uses field research, research, survey, interview, etc. to collect relevant data and information, focusing on administrative management, laws, regulations, The influence of the community and the public on the integration of educational resources. Among them, the indicators of the survey data were mainly obtained through in-depth analysis of the literature, and revised with the feedback of experts, and the validity and reliability of the questionnaire met the requirements, both of which were greater than 0.7.

3.4 Description of variables

1. Explanatory variable: Educational Resource Integration Index (ERII)
2. Explanatory variables: Administration (AM), Laws, Regulations (IN), Social Participation (PS)
3. Control variables: Regional Level of Local Autonomy (REDL), Educational Structure (EQ), Policy Environment (ON), and Public Participation Awareness (CA), as shown in Table 1.

Table 1: Explanation of issues related to the management of higher education

Variable type	The name of the variable	Variable symbol	Description of the variable
Educational level	Integration of educational resources	ERII	This comprehensive index comprehensively considers the integration of resources in teaching, scientific research, facilities, etc., and is used to measure the integration degree of educational resources in the adjustment of higher education policies.
Government intervention	Policy adjustments	AM	The degree of overlap between the administrative department and the working mechanism is measured by literature analysis, questionnaire surveys, etc.
	Departmental coordination mechanisms	IN	Through the coordination and restraint of system construction and implementation effects in management, punishment, promotion, evaluation, etc., the degree of perfection of educational resources and laws and regulations is obtained.
	Targeted policies	PS	Through targeted policy guidance on the teaching performance and scientific research ability of education, the intervention effect and skill level of the policy can be obtained.
The public and laws and regulations	Regional level of local autonomy	REDL	It is used to analyze the impact of the level of local autonomy on the integration of higher education resources in different regions.
	Educational structure	EQ	The performance of colleges and universities in terms of teaching quality, scientific research level, and comprehensive quality of students fully reflects the overall level of higher education structure.
	Legal constraints on educational guarantees	ON	The government's legal and regulatory support for higher education, as well as the related regulatory environment, reflect the impact of the public, laws and regulations on the integration of educational resources in the adjustment of higher education policies.
	Awareness of public participation	CA	The concept of public participation in education and cultural values reflects the influence of public participation consciousness on the integration of educational resources in the adjustment of higher education policies in different regions.

4 Results and discussion

4.1 Descriptive statistical analysis

In order to make the sample data show a clearer trend and better study its dispersion, the sample data of 15 higher education administrative education resources integration in Nanjing, Shenzhen and Liaoning Province were statistically described, and the maximum, minimum, mean and standard deviation of different variables was studied and observed, as shown in Table 2.

Table 2: Descriptive statistics

Variable	Survey samples	Average value	Standard deviation	Minimum	Median	Maximum
ERII	15	28.52*	13.33***	12.65	47.635*	82.62
AM	15	23.65**	12.85**	9.23***	37.285*	65.31*
IN	15	24.33*	14.37**	10.12*	42.17*	74.22
PS	15	25.26*	15.53*	11.45**	43.885**	76.46
REDL	15	5.32***	3.34*	4.156*	6.206*	8.366*
EQ	15	7.62*	6.26*	4.323**	6.883*	9.363**
ON	15	7.56*	6.55*	4.685*	6.904*	8.023*
CA	15	0.87*	0.76*	0.56**	0.46*	0.11***

Note: T values are in parentheses; *, **, and *** indicate significance at 10%, 5%, and 1% levels, respectively.

4.2 Correlation analysis

In order to avoid the multicollinearity problem between variables and improve the reliability of the test results, the Pearson correlation coefficient test was performed on the main variables. Pearson's correlation test was used to test the actual validity of the sample data, as well as the correlation between the dependent variables and their different independent variables in the model, as shown in Table 3.

Table 3: Correlation analysis between administrative management and integration of educational resources

Index	ERII	AM	IN	PS	REDL	EQ	ON	CA
ERII	1.0000	0.3225	-0.0184	0.3103	-0.2523	1.0000	0.3225	-0.0184
AM	0.9697	1.0000	-0.1674	0.2164	-0.2300	0.9697	1.0000	-0.1674
IN	0.9844	0.9610	1.0000	0.9076	-0.9151	0.9844	0.9610	1.0000
PS	0.9939	0.9579	0.9742	1.0000	0.9976	0.9939	0.9579	0.9742
REDL	0.9911	0.9531	0.9672	0.9995	1.0000	0.9911	0.9531	0.9672
EQ	1.0000	0.3225	-0.0184	0.3103	-0.2523	1.0000	0.3225	-0.0184
ON	0.9697	1.0000	-0.1674	0.2164	-0.2300	0.9697	1.0000	-0.1674
CA	0.9844	0.9610	1.0000	0.9076	-0.9151	0.9844	0.9610	1.0000

Table 3 shows the correlation analysis between the variables, and a brief analysis of the correlation coefficient matrix can obtain a preliminary judgment on the relationship between administrative management, employment mechanisms, personnel specialization and integration of educational resources. There was a significant positive correlation (0.96) between administrative management and the integration of educational resources, indicating that there was a negative relationship between administrative management and the integration of educational resources. There was a significant positive correlation (-0.97) between the employment mechanism and the integration of educational resources, indicating that there was a positive relationship between the employment mechanism and the integration of educational resources. There was a significant positive correlation between personnel specialization and the integration of educational resources (0.64), indicating that there was a positive relationship between personnel specialization and the integration of educational resources. These relationships show that there is a certain correlation between administrative management, employment mechanism, personnel specialization and integration of educational resources in the sample empirical analysis. However, it should be noted that the correlation coefficient reflects the linear relationship between the variables, but it is not sufficient to account for causal relationships. Therefore, these relationships are only preliminary judgments, and more in-depth regression analysis is needed in follow-up studies to further verify and analyze the essence and impact of these relationships.

4.3 Regression analysis of educational resource integration

Regression analysis was performed on the indicators of educational resources, and the specific results are shown in Table 4.

Table 4: Regression analysis

	Model 1	Model 2	Model 3
Constant	0.10***(4.74)	0.097***(5.14)	0.098***(5.54)
ERII	0.06***(5.57)	0.058***(5.56)	0.054***(5.68)
AM	0.09***(4.76)	-0.082*(-2.93)	0.072**(2.55)
IN	0.07***(2.69)	0.074***(2.72)	0.076***(2.75)
PS	0.07***(2.72)	0.076***(2.75)	0.079***(2.95)
REDL	-0.29***(-22.64)	-0.285***(-22.69)	-0.286***(-22.70)
EQ	0.38***(21.64)	0.386***(24.67)	0.388***(26.73)
Coefficient of expansion VIF	25.11	-5.14	-52.14
Partial correlation	0.11	-0.68	-0.68
R-Square	0.06	0.06	0.06
Remaining standard deviation = 0.16			
Durbin-Watson d=2.58			

Note: *** indicates a significant correlation at the 0.01 level (bilateral), ** indicates a significant correlation at 0.05 (bilateral), and * indicates a significant correlation at 0.1 (bilateral).

As shown in Table 3-4, the explanatory variables of Model 1, Model 2 and Model 3 are the integration of educational resources, and each model contains a set of explanatory variables, namely administrative management, employment mechanisms, personnel specialization, and the regression coefficient related to each explanatory variable.

In model 1, the relationship between administrative management and the integration of educational resources is significant (0.086***), and the t-statistic is 4.76, indicating that there is a positive relationship between administrative management and the integration of educational resources.

In model 2, the impact between the employment mechanism and the integration of educational resources is significant (-0.082***), and the t-statistic is -2.93, indicating that there is a negative relationship between the employment mechanism and the integration of educational resources.

In model 3, the relationship between personnel specialization and educational resource integration (0.072***) is significant, and the t-statistic is 2.55, indicating that there is a positive relationship between personnel specialization and educational resource integration.

At the same time, the control variables of regional economic development level (REDL), education quality (EQ), policy environment (ON), and socio-cultural climate (CA) have a significant impact on administrative management, employment mechanism, and personnel specialization, and the t-statistics are significant.

4.4 Robustness analysis

Robustness tests were carried out on the survey model to verify the validity of the results of the model and the integrity of the model, as shown in Table 5.

Table 5: Regression analysis

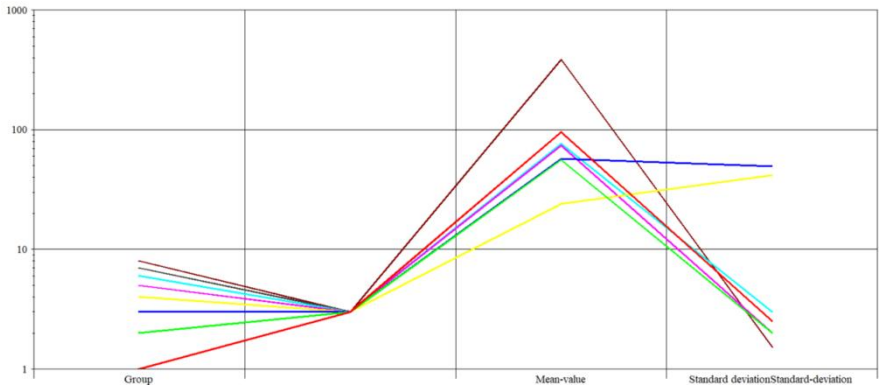
	Model 1	Model 2	Model 3
Constant	0.095***(5.12)	0.098***(6.23)	0.093***(4.72)
ERII	0.058***	0.054***	0.056***(5.57)
AM	0.086***(5.56)	0.085***(5.68)	-
IN	-0.086*(4.78)	0.072**(4.76)	-0.082*(-2.93)
PS	0.074***(-3.06)	0.076***(-2.55)	0.072***(-2.63)
EQ	0.076***(-2.75)	0.079***(-2.95)	0.073***(-2.69)
ON	-0.285***(-22.69)	-0.286***(-22.70)	-0.283***(-22.62)
CA	0.386***(-24.67)	0.388***(-26.73)	0.385***(-26.63)
Survey samples	10	10	10
R-Square	0.045	0.046	0.045

	Model 1	Model 2	Model 3
Adj. R-Square	0.41	0.44	0.41

Note: *** indicates a significant correlation at the 0.01 level (bilateral), ** indicates a significant correlation at 0.05 (bilateral), and * indicates a significant correlation at 0.1 (bilateral).

The data distribution in Table 5 is shown in Figure 1.

Figure 1: Data distribution results of administrative education resource integration



From the data results in Figure 1, it is found that the standard ring, mean value, and sample value in the line chart of the data are relatively concentrated, and the values are scattered regardless of the value, but the normal change trend is consistent. Therefore, the regression coefficients are all significant, indicating that there is no sample selection bias for the regression of Hypothesis 1 and Hypothesis 2. After the regression for hypothesis 2 corrects the sample selection bias, the significance and sign direction of the regression results are still consistent with the previous paper, which proves the robustness of the results.

4.5 Regression results

From the regression point of view, the assumptions H1, H2, H3, H4, and H5 are all verified. It shows that there is a positive relationship between administrative management, personnel specialization and integration of educational resources. There is a negative relationship between the employment mechanism and the integration of educational resources. To a certain extent, administrative management, employment mechanism, and personnel specialization affect the orientation of the integration of educational resources.

In addition, the control variables in the model, regional economic development level (REDL), education quality (EQ), policy environment (ON), and socio-cultural climate (CA), also statistically significantly affected the integration of educational resources, indicating that the integration of educational resources was affected by a combination of multiple factors (Table 6).

Table 6: Outcome of the hypotheses

Hypothesis	Content	Outcome
Hypothesis 1	Whether local autonomy affects the management of higher education, whether the role of local intervention policy and legal improvement overlaps, and whether the impact on resource integration is perfect	establish
Hypothesis 2	Whether the co-supervision mechanism is perfect, and whether the public plays a role in promoting the integration of educational resources	establish
Hypothesis 3	Whether local laws and regulations have an impact on the integration of educational resources, the educational environment, and the level of local governance.	establish

From the data analysis results in Table 6, it is found that the three hypotheses proposed are all valid, indicating that the role of laws, regulations, and local systems in the integration of higher education is very obvious, and the bow and arrow have a guiding and promoting role in the optimization of resources and the implementation of policies.

5 Conclusion and discussion

From the above analysis, it can be seen that the integration of educational resources has a positive impact on educational administration, overlapping departments and related mechanisms have a positive impact on the professional division of labor, but the professional division of labor and employment mechanism of personnel are not perfect, and there is an inhibiting effect on the integration of educational resources, and the overlapping departments and related mechanisms have no obvious impact on the integration of educational resources, so the suggestions are as follows.

5.1 Strengthen government guidance and support

The government plays a very important role in the integration of educational resources in higher education administration, and by giving full play to the functions of the government, increasing the policy support for the integration and sharing of educational resources, guiding all parties to actively participate in the support of the integration of educational resources (Bustos López et al., 2020), and promoting the balanced development of education in the region. First, the government encourages schools and educational institutions to strengthen cooperation and promotion through the formulation of relevant policies and

regulations. Through policy guidance to strengthen exchanges and cooperation between universities and educational institutions, promote the cross-integration between disciplines, and realize the sharing and optimal allocation of educational resources, the government can introduce some policies to encourage the sharing of library resources and laboratory equipment between universities and educational institutions, to reduce the waste of educational resources and duplicate construction (Luo, Hostetler, Freeman, & Stefaniak, 2020). The second is to promote open educational resources. The government should encourage and promote open educational resources, such as open courses, open textbooks, etc., and formulate relevant sharing agreements to clarify the principles of sharing educational resources, protection of rights and interests, intellectual property rights, etc., to provide legal protection for the cooperation of universities and educational institutions, and promote the purpose of sharing and legal protection of educational resources (Machado, Maran, Lunardi, Wives, & de Oliveira, 2021), to improve the efficiency of the use of educational resources and effectively expand the coverage and influence of higher education. The third is to establish a coordination mechanism. Through the establishment of cross-departmental and cross-regional coordination mechanisms (Mangal, Carter, & Arcia, 2022), the government promotes the coordination and implementation of educational resources in higher education administration. Strengthen the communication and cooperation between universities and educational institutions in the region, and jointly promote the integration of educational resources, such as holding joint meetings and exchanging experiences regularly (Park, Han, Tak, & Lee, 2022). Fourth, promote digital technology in education. The government supports and encourages colleges and universities to promote digital technology in education, strengthens the development of digitalization and informatization of educational resources, and realizes online sharing and remote transmission of educational resources through the establishment of digital platforms and the development of online courses, so as to improve the efficiency of the use of educational resources and the breadth of services (Peñaherrera, 2020).

5.2 Improve the construction of the management system of colleges and universities

The first is to optimize the organizational structure of colleges and universities and reduce overlapping departments. Clarify the responsibilities and authority of each department of the university, avoid overlapping and duplication of functions, and integrate departments with overlapping responsibilities in a timely manner to ensure that the responsibilities of each department are clear and the division of labor is clear. At the same time, by optimizing the decision-making process, improving the efficiency and scientificity of decision-making, ensuring the effective implementation of various policies (Ryder et al., 2020), and avoiding decision-making errors or delays. The second is to strengthen communication and coordination among various departments of colleges and universities and promote

cross-departmental cooperation. Establish a cross-departmental joint system, share the educational resources of various departments, discuss the problems and difficulties in education management (Sevillano-Monje & Sanz-Escutia, 2022), discuss solutions together, and strengthen exchanges and collaboration among various departments. The third is to establish and improve the employment mechanism and promote the professional division of labor among the management personnel of colleges and universities (Tlili et al., 2021). Formulate clear recruitment standards, procedures and assessment mechanisms to ensure that the introduced talents can be competent for their positions and give full play to their potential. At the same time, colleges and universities can provide a good career development platform, continuously improve the career development system, provide promotion opportunities and career development planning guidance, and actively carry out academic research and innovative practice through scientific research project funding, academic conferences and other forms.

5.3 Establish a cross-school and cross-regional education resource-sharing network

The first is to establish an educational resource sharing network covering universities and educational institutions in the region, so that the government, universities, educational institutions, social forces and other aspects of joint participation and efforts. The government can introduce relevant policies and regulations to improve the sharing and integration of educational resources in colleges and universities and help universities and educational institutions establish and improve educational resource-sharing networks to achieve the effect of resource integration. Second, universities and educational institutions should actively participate in the sharing of educational resources, through the establishment of an educational resource sharing mechanism, jointly carry out courses, share educational technology (Tung & Van Tri, 2023), promote academic exchanges and cooperation, and improve the overall level of university education in the region. In addition, universities and educational institutions can share educational resources and learning methods with students, such as teachers, to enhance their interest in academic research, improve the quality of teaching, and obtain more academic resources and curriculum resources through the exchange platform, so as to expand their knowledge and horizons. Third, in addition to the active participation of universities and educational institutions, individuals can also play a key role in the sharing of educational resources. Individuals should enhance their awareness of and participation in educational shared resources and actively share their own educational experience and resources, such as teachers sharing resources such as self-built question banks and teaching courseware, and students sharing resources such as learning experiences and learning materials, so as to effectively promote the fair and balanced development of education. Fourth, in order to ensure the normal operation and sustainable development of the educational resource sharing network, the government should jointly establish a

supervision mechanism with all sectors of society to standardize the operation of the educational resource sharing network and ensure the security and stability of the shared network (Vihos et al., 2023). At the same time, all sectors of society actively participate in the construction and management of the network, and provide financial and technical support to help the sharing network operate and develop better.

5.4 Improve the evaluation mechanism and promote the sharing and communication effect

In order to improve the effect and quality of the integration of educational resources, it is necessary to establish a scientific and effective evaluation mechanism, promote the sharing and exchange of educational resources, find problems promptly, and improve and upgrade them. The first is to improve the evaluation mechanism and systematically evaluate the degree of participation and the effect of participation. The participants were mainly teachers and students, and the quality and practicability of the relevant communication content were evaluated in terms of communication content, such as courses, teaching materials, and scientific research results (Will & Homuth, 2020). The communication method can be online or offline, and the appropriate communication method can be selected according to the actual situation, and the communication effect and quality are evaluated. Second, the evaluation mechanism should be scientific and effective, so as to objectively reflect the effect of the integration of educational resources, that is, the evaluation criteria should be clear, the evaluation indicators should be specific, and the evaluation methods should be scientific. At the same time, the specific evaluation should take into account the actual situation of universities and educational institutions in the region, and formulate appropriate evaluation indicators and methods. Third, the evaluation mechanism should increase the feedback and improvement mechanism, through the analysis and feedback of the evaluation results of educational indicators, timely find out the problems and deficiencies in the integration of educational resources (Wilson et al., 2023), and take timely measures to improve and upgrade. At the same time, the evaluation results should also improve the theoretical basis for the integration of educational resources, and provide reference and guidance for future education. Fourth, the assessment mechanism should be sustainable, the essence of the assessment mechanism is to carry out long-term and continuous evaluation, form an institutionalized and standardized long-term operation mechanism, and the assessment results should also be published regularly, subject to social supervision and evaluation, to ensure the fairness and transparency of the assessment work.

5.5 Strengthen interdisciplinary integration and promote academic development

The interdisciplinary education form breaks down the barriers of disciplines, promotes exchanges and cooperation between different disciplines, promotes interdisciplinary research and development, and brings more innovative results to social development. First, universities should promote interdisciplinary integration, and adopt methods such as setting up interdisciplinary research projects and forming interdisciplinary teams to promote resource sharing and complementary advantages. Interdisciplinary research projects cover multiple disciplines, and interdisciplinary teams are formed to unite experts and scholars from different disciplinary backgrounds to discuss and research-related projects to achieve academic innovation and breakthroughs. Second, colleges and universities should actively organize academic seminars, academic forums and other activities to promote academic exchanges and cooperation between universities and educational institutions. Through academic exchanges, a platform has been established for experts and scholars from different disciplinary backgrounds to communicate with each other and share research results and experiences, which has effectively promoted the cross-integration of disciplines and promoted academic leapfrogging and progress (Wu, 2021). Third, colleges and universities should strengthen cooperation with related industries and promote the integrated development of production, education and research. In order to better and faster understand social needs and market changes, and obtain more research resources and practical opportunities, colleges and universities should further improve their academic level and innovation ability, strengthen research cooperation in industries related to research topics, and promote economic development and social progress. Fourth, colleges and universities should keep up with the pace of reform and innovation in terms of management systems and mechanisms, establish a management system and mechanism conducive to interdisciplinary integration, and encourage and support interdisciplinary research and development.

6 Results and outlook

6.1 There is an overlap between the administrative departments and working mechanisms of higher education, which harms the integration of resources

According to the analysis of empirical results, it can be seen that there is an overlap in the working mechanism of various departments of higher education administration, which harms the integration of resources. Specifically, there are problems such as overlapping institutions and overlapping functions in the administrative departments and working mechanisms of higher education, which are prone to harm the integration of educational resources, resulting in a waste of resources and low efficiency. In order to improve the effect of the integration of educational resources, measures such as optimizing the organizational structure and improving the working mechanism should be adopted to avoid problems such

as overlapping institutions and overlapping functions (Xie, Nelson, Cheng, & Jiang, 2023).

6.2 The professional division of labor and the employment mechanism of personnel are not perfect, which has an inhibiting effect on the integration of educational resources

Through the analysis of the empirical results, it is verified that the professional division of labor and the imperfection of the employment mechanism has an inhibiting effect on the integration of educational resources. This conclusion shows that the professional division of labour and the employment mechanism is not perfect, which inhibits the integration of educational resources, leads to the loss of talent, and the lack of academic innovation ability. Therefore, in order to promote the integration of educational resources, it is necessary to establish and improve the employment mechanism, promote the professional division of labor, and improve the quality of education and academic innovation.

6.3 The integration of educational resources has a positive impact on educational administration

Through the analysis of the empirical results, it is verified that the integration of educational resources has a positive impact on educational administration. This conclusion shows that the measures of optimizing resource allocation and improving resource utilization efficiency can effectively improve the work efficiency and service quality of education administrative departments and promote the sustainable development of education.

6.4 The relationship between overlapping departments, related mechanisms and the integration of educational resources and the administrative management of a professional division of personnel

The impact of overlapping sectors and related mechanisms on the integration of educational resources is not obvious, which may be due to the indirect impact of overlapping departments and related mechanisms on the integration of educational resources, and it is necessary to combine other factors to play a certain role and achieve the best effect. Overlapping departments and related mechanisms have a certain positive impact on the personnel specialization sub-tools, which are mainly manifested in providing more development opportunities and platforms, promoting interdisciplinary exchanges and academic innovation, etc., which can effectively promote the professional division of personnel and the improvement of academic ability.

6.5 Research locality

There are some limitations in this study, mainly in terms of the accuracy of survey data acquisition, and the influence of the age and gender of the investigators on the survey results. In the future, we will focus on the analysis of data and information to make up for the shortcomings of this paper.

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Conflict of Interest:

The authors declare no conflicts of interest.

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