

Influential Factors of College Teacher Courses: The Dual Perspective of Institutional and Personal Factors

HAIXUAN WANG, MOHD RIDHUAN MOHD JAMIL*, CHENLIN WANG, JIE GAO

Faculty of Human Development,
Sultan Idris Education University,
Tanjong Malim, 35900,
MALAYSIA

**Corresponding Author*

Abstract: - The course of University Teachers, mainly consists of professional courses, leadership, curriculum culture leadership and curriculum resource leadership. The professional course leadership of university teachers is the key to achieving high-quality teaching. From the perspective of creating opportunities, course leadership is also the core of promoting curriculum innovation and reform practice development. In order to deeply study the leadership factors that affect the curriculum of university teachers, this article explores the important impact of scientific research projects on the leadership of subject courses from the perspective of institutions and individuals. It focuses on the systematic personal perspective of conducting research and derives some restrictions to improve the quality of leadership university teacher courses. It analyzes and discusses from an institutional and personal perspective to promote the improvement of university professional ability.

Key-Words: - Course leader, learning opportunity, personal opinion, institution, personality, Teacher Course Leadership.

Received: August 15, 2024. Revised: February 25, 2025. Accepted: March 19, 2025. Published: April 11, 2025.

1 Foreword

Improving the principal's curriculum leadership is the basic requirement for the government to implement curriculum reform. In order to coordinate and promote the reform of the new general curriculum, the comprehensive reform of the high school and college entrance examination, and comprehensively improve the quality of general high school education. The state requires high schools to fully implement new courses and use new textbooks before 2022; it is necessary to improve curriculum management, strengthen supervision of curriculum implementation, and fulfill the main responsibilities of principals. Strengthen accountability. The guide clearly points out the principal's. The main responsibility is to revise the school curriculum and require the organization of training activities, such as training all principals and teachers, carrying out learning activities to suspend principals and teachers, on-the-job exchanges and follow-up learning to compensate for improving the ability of principals and teachers to implement new courses.

The key proposition is to improve the principal's curriculum leadership at the school level, so as to promote the in-depth implementation of the curriculum, improve the three-level curriculum

management system, establish the driving force of high-quality curriculum and key link curriculum system, and cultivate students' core literacy. Therefore, some researchers pointed out that for the real success of curriculum reform, it is necessary to strengthen and promote curriculum leadership. Although the principal has fully participated in the construction of the school curriculum, under the actual situation, daily decision-making and curriculum-related decisions account for only 2% to 10%. In terms of student-oriented cognition, the school level is still very weak, and the operation of the curriculum lags behind the requirements of establishing a high-quality curriculum system. The comprehensive development of promoting the implementation of students is more limited to the theoretical cognitive stage and tends to rational conceptual recognition, which usually forms a form and even lacks practical action. To this end, we need to further explore the course leadership of the principal within the theory, expand the content system opportunities of the principal's course leadership from the perspective of learning, and promote the principal's course leaders to explore the new path of the principal's course leadership through the preset, integration, conversion and feedback of students' learning opportunities.

2 Literature Review

2.1 The Theoretical Connotation of College Teacher Course Leadership

2.1.1 Research on the Role of Teacher Course Leadership

Many scholars at home and abroad realize that changing the role of teachers in the implementation of traditional curriculum is an inevitable requirement of educational reform, and teachers should become the leaders of the curriculum, [1]. It is believed that the role of teacher curriculum leaders should be the liaison and assistant between teacher groups and school leaders, as well as assistants between teacher groups. "Give full play to the role of communicating the teacher community and strength at all levels. Bradley pointed out that this teacher. As a negative course leadership, we should play the role of students' learning guides and problem solvers, advocates of curriculum activities, service and motivators, etc., and "pay more attention to teachers' initiative in implementing the curriculum. In a word, the teacher's course leadership is the teacher's own ability to connect with the course. The vast majority of scholars agree with this doctrine. Teachers should "play a role related to the curriculum in schools and society" and give full play to their curriculum leadership role.

2.1.2 Physics Promotion Research Led by Teachers' Courses

Mr. Curry's foreign exploration key course leadership has gradually shifted from the research of the main course leader to the general teacher group, [2]. The study of teachers' curriculum leadership is based on the curriculum, attaches importance to the formation of leadership partners and the communication between teachers and peers, and emphasizes the role of learning cooperation between teachers in improving teachers' curriculum leadership, such as teachers' understanding of curriculum issues and creating democratic courses, [3] think that teacher's leadership is the basic element of teachers' professional development and educational ability improvement. They believe that teachers can evaluate their peers by leading other teachers' curriculum activities, and then provide them with all career development plans and develop excellent courses to play the leading role of the curriculum. Give full play to your course leadership role. @Hawthorne and others analyzed the improvement strategy. The principals and teachers course leaders based on curriculum concepts and teacher curriculum concepts, and decision-making, experienced courses

and course dialogues, etc., [4]. A study on the redesign of the school system of mathematics was reported to combine regional courses with school and classroom practice to carry out teachers' teaching by supporting teachers' curriculum leadership activities. The focus of the study is that teachers participate in curriculum leadership activities and improve their own curriculum leadership ability. School support is an important relevant factor in improving teachers' curriculum leadership path.

Cao Erlei proposed from the teacher level that teachers can rely on reflection and practice, and through teachers and students. Teaching and training community interactive activities to improve their own course leadership, [5]. And it is proposed that teachers should understand the concept of updating curriculum leadership, change their roles, and strengthen the operation and practice of theoretical curriculum leadership and other action strategies. Based on the combination of theory and practice, [6]. It is proposed that the improvement of teachers' curriculum leadership should enable teachers to truly participate in empowerment and the perspective of empowerment. During the whole course operation process, the school should effectively allow teachers to enter all aspects of the course operation, [7]. The continuous implementation of the curriculum standard r has been studied in Xuanwu District, Nanjing City for nearly ten years. Relying on the reform of research and training methods, such as the two-way sequence of proposition teaching and research, teaching and learning, Xi proposed a strategy to promote the improvement of teachers' curriculum leadership through regional practice innovation, [8]. It is proposed to reshape the cooperative teacher culture from the social level. In this way, we can strengthen communication and cooperation among teachers in different schools, and get support and advice from parents and social personnel.

2.2 Course Leadership Theory of University Teachers

2.2.1 The Meaning of the Opportunity and Course of Lear's Connotation

Learning opportunity (Opportunitytolearn, OTL) became a technical term in the field of Western educational research in the 1960s, [9]. An analysis of the "school learning model" was proposed in 1963, [10]. The impact of learning time on learning effect was studied. Learning opportunities are regarded as a factor of learning time, which opens a professional discussion about learning opportunities. After that, the connotation of learning opportunities was

enriched. It is considered to ensure that students meet the conditions stipulated by academic standards, and has become a key variable to explain the development of students' academic achievements, [11]. In order to ensure that students have enough opportunities to improve their academic achievements and urge schools and other educational institutions to provide sufficient resources for students' development, the United States., Congress passed and promulgated the D 2000 target: the American Education Act (Goals2000EducaTe Amer Ica Act, the 2000 Goal, hereinafter referred to as the 2000 Goal) clearly stipulates the "Learning Opportunity Standards", [12]. The standard covers the conditions of the curriculum, resources, teachers, schools and education systems, [13]. Divide opportunities into five indicators: time, content and quality: teaching time, content scope, cognitive process, teaching practice and group mode, and improve the understanding of learning opportunities. Therefore, learning opportunities have become an important issue to promote educational equity and improve academic quality.

2.2.2 Lead the Principal's Course from the Perspective of Learning Opportunities

Discuss principal, [14]. From the perspective of learning, Ng opportunities, partners' course leadership can enrich the theoretical connotation of course leadership and innovate the improvement path of course leadership. First of all, the learning opportunity brings new connotation to the principal's course leader. [15], thinks the principal's course leadership is the process of positioning, integrating, transforming and feedback learning opportunities. The principal's course leadership is essentially the ability to give students more learning opportunities. [16], [17], [18], [19], point out the course leader of this is an effective way to promote the transformation and realization of students' learning opportunities and ultimately achieve students' core literacy development goals. Secondly, learning opportunities bring a way to improve leader's worship of the new principal's course. The specific expression is: establish a course vision to preset learning opportunities, carry out course planning and integrate learning opportunities, promote course implementation to convert Rm learning opportunities and conduct course evaluation to feedback learning opportunities.

3 Models and Variables

3.1 Model Construction

In order to test the influence of four dimensions, such as teacher characteristics, regional Nal characteristics, re-search and development of investment scientific research carriers, etc. Regarding the scientific research leadership of university teachers, this article sets the measurement model as follows:

$$\begin{aligned} \ln paper_t = & \beta_0 + \beta_1 \times \ln prafassar_{it} + \\ & \beta_2 \times \ln program_{it} + \beta_3 \times \ln gdp_t + \\ & \beta_4 \times \ln rd_{it} + \beta_5 \times \ln meeting_{it} \\ & + \beta_6 \times \ln university_{it} \\ & + \lambda_i + \tau_t + \varepsilon_{it} \end{aligned}$$

In Centre the, $\ln paper_t$. This is a vertical variable to measure the scientific research leadership of university teachers;

$\ln prafassar_{it}$ This is an independent variable to measure the characteristics of college teachers;

$\ln program_{it}$ And $\ln meeting_{it}$ It is an independent variable for measuring scientific research carriers.;

$\ln gdp_t$ And $\ln university_{it}$ This is an independent variable to measure regional characteristics; $\ln rd_{it}$ This is an independent variable to measure R&D investment. In addition, the model also increases the time effect (τ_t), I don't know the individual effect that changes over time (λ_i (This article refers to each area) and random interference items (ε_{it}) Control the impact of unobservable variables on the scientific research leadership of university teachers.

β_1 — β_6 ... This is an estimated coefficient of the impact of teacher characteristics, scientific research carriers, regional characteristics, research and development investment, etc. on the scientific research leadership of university teachers. This coefficient is the estimated coefficient of the core e measurement model. If β If it is not significant, it means that the above independent variable has no significant impact on the dependent variables of university teachers' scientific research ability; if β Adequate coefficients are very important, which shows that the above characteristics have a significant impact on the scientific research leadership of university teachers.

3.2 Variable Description

1) Scientific research leader of university teachers. The scientific research leadership of university teachers focuses on the scientific research ability of university teachers. This paper selects the total number of papers published by university teachers for measurement. In order to test the robustness, this article also selects the number of scientific and technological works published by university teachers to show the scientific research leadership of university teachers.

2) Characteristics of university teachers. According to the practice of general literature, this article selects the number of teaching and scientific researchers with senior titles to measure the characteristics of university teachers. Because the variables of these two teaching, researchers and senior titles are highly related ($r=0.88$, $p=0.000$), in order to avoid multiple colinearity, this paper does not include the two variables of teaching and scientific researchers and advanced titles that enter the model at the same time, and only analyzes the teaching and scientific research in the robustness test. The influence of personnel on the scientific research leadership of university teachers.

3) Regional characteristics. The economization of a region has an important impact on investment in local scientific research. This paper uses the capital GDP of each region to measure the impact of regional characteristics on the scientific research leadership of university teachers. Similarly, the relationship between local universities and regional universities has also had an important impact on the research ability of university teachers. This paper also uses the size of local universities to measure the regional characteristics of the proportion of the number of regional universities.

4) Invest in research and development. The documentary shows that the R&D investment in a region, especially the basic R&D investment, has had an important impact on CT at the level of local scientific research. This paper uses the basic R&D investment in the region to measure the R&D investment.

5) Scientific research carrier. Relevant research shows that the scientific research projects that digital university teachers participate in or undertake and the number of international academic conferences. they participate in have a significant impact on the scientific research ability of university teachers. This paper uses the number of scientific research projects that T University teachers participate in or undertake, as well as the number of international academic conferences attended, to measure the carriers of scientific research. The recent method to define and

make the above variables is shown in Table 1 (Appendix).

3.3 Descriptive Statistics

From 2001 to 2017, this paper selected higher education institutions from 30 provinces (cities) and autonomous regions as research samples. Due to the lack of most of the relevant data areas of Tibet's autonomy, this article deletes the relevant samples of the Tibet Autonomous Region. In this way, the sample includes 30 cross-sectional 17-year group data, and the province's annual observation value is 510. The data in this article mainly comes from the compilation of scientific and technological statistics of higher education institutions from 2002 to 2018 and the local statistical yearbooks of provinces and cities. In order to eliminate the influence in the outlier, this paper sorts the continuous variables by 1% and 99%. The following data report is based on the processed data results. Before regression analysis, the descriptive statistics of variables and the Pierson correlation between indep analyzed the endent variables in the model. Table 2 (Appendix) reports the relational matrix of Pearson corre variables and the descriptive statistics of each variable. It can be seen from the correlation matrix that there are highly correlated dent variables and dependent variables between each, indicating that the independent variable Ble has a certain impact on the dependent variables. The hypothesis in this article has been preliminarily verified. Judging from the relationship between independent variables, $\ln professor_{it}$ And $\ln research_{it}$ The correlation coefficient between has reached 0.88. If the two variable is included in the model at the same time, it may lead to serious multiple colinearity, so this paper uses $\ln professor_{it}$. As the main effect analysis, Urz 000055, as a robustness test variable, verifies the impact of teacher characteristics on the scientific research ability of college teachers. In addition, the correlation coefficient between the rest of the independent variables does not exceed 0.5, so my degree shows that there is no serious multiple colinearity in the model. Further examination of the country, the test results of in-variance connection (VIF) show that the average of VI is 1.53, which is lower than the threshold of 1.60, which shows that there are no multiple common problems in our regression analysis. $\ln research_{it}$ As a robustness test variable, verify the impact of teacher role Actoristics on the scientific research ability of college teachers. In addition, the correlation coefficient between the remaining independent variables is not greater than

Ed 0.5, and which shows to some extent that there is no serious multiple colinearity in the model. Further inspection shows that the test results of the factor of variance (VIF) show that the average value of F VI is 1.53, which is lower than the threshold of 1.60, which shows that there is no multiple c linear problem in our regression analysis.

4 Model Measurement and Analysis

In order to and... In connection with each model, as a result of comparative analysis, this paper estimates that the mixed ordinary least squares method (pooledOLS), fixed effect model (FE), random effect model (RE) and Drisco are the ll-Kraay model (DK) respectively. The OLS model, FE model and RE model all select the robust cluster standard error at the provincial level, while the DK model adopts the Driscoll-Kraay standard error and the fourth-order lag (lag (4)). Since the variable model in this paper adopts the logarithm, the estimated regression coefficient can explain Stics, scientific research carriers, regional characteristics and R&D characteristics through the sensitivity of the scientific research leadership, that is, the changes in independent variables such as the characteristics of flexible university teachers and teachers between the two. In addition, due to the possibility of endogenous problems. This article only analyzes the possible correlation between variables, not the causal relationship.

4.1 Basic Regression Analysis

This paper first studies the influence of their respective variables on the scientific research leadership of university teachers with dependent variables. Table 3 (Appendix) shows the basic regression results. Models (1) to models (4) show that the mixed results are ordina, which are least squares, fixed effect, random effect and DK model respectively. Breusch-Pagan Lagra. The results of the nge multiplier test and the Hausman test show that the fixed effect model should be used for the measurement and analysis in this paper. Therefore, the estimated results of the th variable are mainly interpreted according to the fixed effect model (2). From the perspective of the specific model, the characteristic variables of teachers, scientific research carriers, basic research and development investment, etc. have a significant impact on the scientific research leadership of university teachers.

From the model (2): $\ln professor_{it}$ Estimated coefficient $\beta_1=0.253$, which is significant at the level

of 1% ($se=0.09$), indicating that the number of college and university research presidents with senior titles will greatly improve the scientific research leadership of university teachers. We also calculated the economic impact of the number of senior employees on teachers' scientific research ability. Since both are logarithms of the model, the elastic coefficient can be used to explain the impact of the number of senior staff on the scientific research leadership of teachers. Judging from the regression coefficient, it is found that for every 10% increase in the number of senior teachers, the number of papers published by university teachers will increase by 2.53%. This shows that scientific researchers with senior titles among university teachers have a significant overflow Er effect, which can promote the improvement of the scientific research ability of the entire teaching team.

$\ln program_{it}$ Estimated coefficient $\beta_2=0.696$, significantly at the level of 1% ($se=0.09$), indicating that participating in or receiving scientific research projects below scientific researchers from universities of science will greatly improve the scientific research leadership of university teachers. We also calculated the economic impact of participating in or carrying out science on ic research projects led by archers' scientific research. From the perspective of the regression coefficient, for every 10% increase in scientific research projects involving or carried out by colleges and universities, the number of papers published by university teachers will increase by 6.96%, which shows that the active participation of university teachers or the implementation of relevant scientific research projects will promote the improvement of the scientific research ability of all faculty and staff.

$\ln rd_{it}$ Estimated coefficient $\beta_4=0.155$, at 10% ($se=0.08$). This level is remarkable, which shows that the region's investment in basic research and development is beneficial to the scientific research of university teachers. We also calculated the economic benefits of basic research and development investment in the leadership of teachers' scientific research. From the regression coefficient, it is found that for every 10% increase in investment in basic research and development, the number of papers published by university teachers will increase by 1.55%. Ch shows that famous fields should increase investment in research and development, especially in basic research and development, to improve the scientific research ability of university teachers.

$\ln meeting_{it}$ Estimated coefficient $\beta_5=0.117$, a significant 10% ($se=0.06$), indicating that

participating in international academic conferences is conducive to university teachers conducting scientific research. We also calculated the impact of participating in international academic conferences on teachers' scientific research leadership. Judging from the regression coefficient, for every 10% increase in the number of participants in international academic conferences, the number of papers published by university teachers will increase by one.17%. This shows that participating in international academic conferences can absorb more cutting-edge theoretical knowledge and research direction, thus improving the scientific research ability of university teachers.

From the perspective of regression results, regional characteristics $\ln gdp_t$ and $\ln university_t$: it has no significant impact on improving the scientific research leadership of university teachers. $\ln gdp_t$ The coefficient of β_6 is 0.165, but there is no statistical significance ($se=0.2$), university estimated coefficient: $\beta_6 = 0.0032$, there is no statistically significant difference from 0 ($se=0.32$). In the comparative analysis and differential measurement of coefficients. After the trial, on various models, scientific participation or research projects of university teachers play the greatest role in improving scientific research leadership. Increasing the proportion of middle and senior titles in scientific research teams plays a role in improving scientific research leadership, increasing regional basic research and development investment, and encouraging university researchers to actively participate in international academic conferences, which is conducive to improving the scientific research leadership of university teachers.

4.2 Panel Quantum Regression

The above basic regression tests the average effect less dependent variables of the influence of average variables, regardless of the differences between universities with different scientific research capabilities. In this part, the heterogeneity of the above effects is tested through panel partial regression. The regression pentameter of the panel adopts a fixed effect model, and Table 4 (Appendix) reports the regression results of 25 quintile, 50 quintile, 75 quintile and 95 quintile respectively.

Follow $\ln professor_{it}$ Judging from the regression results, with the improvement of the research leadership rate of university teachers from 25 percentiles to 95 percentiles of science, the regression coefficient of professors gradually decreased, and the coefficients of q75 and q95

percentiles were not significant at the level of 10%. This shows the senior positions of the scientific research team in the middle. It is said that in small-scale scientific research leadership (such as q25 and q50), the positive impact of the proportion of personnel is more important. That is to say, when the proportion of research leaders in science colleges and universities is relatively low, the positive spillover effect of senior researchers is more obvious.

Follow $\ln program_{it}$ Judging from the return results, with the improvement of scientific results, the leading city teachers in the universe have from 25 points to 95 points. $\ln program_{it}$ The regression coefficient gradually decreased, from 0.712 of q25 to 0.66 of q95. This shows that participating in or carrying out scientific research projects has a positive impact on improving the scientific research leadership of universities, but this impact has the greatest impact on universities with medium and low scientific research ability, which also provides a feasible way to improve the scientific research ability of backward universities.

Follow $\ln rd_{it}$ Judging from the regression results, with the improvement of the scientific research leadership of university teachers from 25 to 95, $\ln rd_{it}$ The regression coefficient also gradually increased from 0.121 to one-25th of q to 0.231, one-fifth of q95. This shows that investment in basic research and development has an important positive impact on improving the leadership of university scientific research. However, this influence has a greater impact on the scientific research ability of universities with strong scientific ability, perhaps because universities with strong scientific research ability have a certain absorption ability, which can be more effective. Use basic R&D investment.

Follow $\ln meeting_{it}$ From the return results, with the scientific research leadership of university teachers increased from 25 to 95, $\ln meeting_{it}$ The regression coefficient is gradually decreasing, and the coefficients of q75 and q95 are not significant at the level of 10%. This shows that in low levels of scientific research ability (such as q25 and q50), the positive impact of participating in international academic conferences is more important. That is to say, when the scientific research ability is relatively low, the universe should create conditions to encourage scientific researchers to actively participate in international academic conferences. Consistent with the previous analysis, regional characteristics $\ln gdp_t$ and $\ln university_{it}$ It is... It has no significant impact on improving the scientific

research leadership of university teachers.

4.3 Three Stability Tests

Comply with Table 5 (Appendix) shown, the characteristics of teachers ($\ln research_{it}$), scientific research carrier ($\ln program_{it}$, $\ln meeting_{it}$), basic research and development investment ($\ln rd_{it}$), other variables have a significant positive impact on the scientific research leadership and regional characteristics of university teachers ($\ln university_{it}$). There is no significant impact, which is consistent with the previous analysis results. However, unlike the previous results, in addition to mixing ordinary least squares models, regional features $\ln gdp_{it}$. It has a significant positive impact on the scientific research ability of university teachers. In a word, the characteristics of teachers, scientific research carriers, basic R&D investment, etc. Quantity is an important factor affecting science. It is necessary to carefully deal with the influence of university teachers' research ability and regional characteristics.

5 Conclusions and Revelations

Strengthening the scientific research leadership of university teachers and strengthening the training of "intelligent engine" teachers of scientific research universities is an important foundation for improving the scientific research and innovation ability of universities and promoting the development of the connotation of higher education. This article focuses on how to improve the novel research leadership of university teachers at the scientific level. It takes scientific research activity data from colleges and universities in 30 provinces across the country as a sample, and quantitatively analyzes the factors affecting scientific research leadership. University teachers use panel fixed effect models, panel quantum regression and other measurement methods. The study found that the characteristics of teachers and scientific research carriers, basic research and development investment and other variables have an important impact on the scientific research leadership of university teachers. For every 10% increase in the number and number of international academic conferences participating in or carrying out scientific research projects, basic research and development investment, and senior title personnel, the number of papers published by university teachers will increase by 2.53%, 6.96%, 1.55% and 1.17% respectively, and university teachers will participate in or carry out scientific research. This project has played the

greatest role in improving scientific research leadership.

As the core theme of the course evaluation process, the teaching focus of student teachers is to check the differences between the learning opportunities required by students across the country. leadership courses and the real opportunities obtained by students in actual learning, and pay attention to students' understanding of learning opportunities and school effects.

Pay attention to students' course experience and point out the students' "learning" direction. By collecting and analyzing students' course experience, the intuitive learning experience can be compared with the curriculum standards formulated by the state and the school's curriculum vision, which can effectively check students' acquires to find real learning opportunities, summarize the gap between them and the proposed learning opportunities, and judge the potential Learning opportunities and Utilization rate.

References:

- [1] Richard Niesche and Robyn Jorgensen. CourseReform in remote areas: productive leadership is needed. *Journal of Education Management*, 48, 2010: 102-117. DOI: 10.1177/0013124585018001006.
- [2] Edmond Hau-Fai Law, Maurice Galton, Sally Wai-Yan Wan. Develop courses School leaders: Hong Kong perspective. *Asia-Pacific Teacher Magazine Education*, February 2007: 143-159. CNKI: SUN: KJF.0.2012-05-021.
- [3] Owen Watson. *Langman Modern English Dictionary*. Langman Group Co., Ltd., 1968:82. DOI: 10.1108/EUM000000000005423.
- [4] Huang Xinhui. The leadership studies the rch of professional course teachers of vocational colleges. *Modernization of education*, 6, 22, 2019: 195-196. DOI: 10.32996/jweep.2021.3.9.1.
- [5] Chen, Junyuan, Yang Yanru, Xu Fenghua, Zhang Xiaolin, Wang Yao, Zhang Yishi. Aluminium. Factors affect the curriculum leadership of primary and secondary school teachers from the perspective of field dynamics theory: China Empirical Survey. *Sustainability*, 13, 21, 2021: 12007. DOI: 10.3969/j.issn.1004-5872.2006.04.001.
- [6] Cheng, Qi, Liu Zhao and Weijun Li. The internal structure and impact mechanism of the quality and ability of two-factor authentication teachers. *Education and urban*

- society, 2024: 00131245241261085. DOI: 10.1016/j. Geography Forum.2012.04.005.
- [7] Yu, Tai-Kuei, Cheng-Min Chao and YiJie Wang. Factors affecting the teaching intention of business school teachers to complete digital entrepreneurship courses. *The frontier of psychology*, 13, 2022: 860808. DOI: 10.33119/KSzPP/2023.
- [8] Swamp C, C day, Hannay L, McCutcheon G. Reconceptual curriculum development. *London: Former Publishing House*, 1990: 57. School-based. DOI: 10.3390/su13094943.
- [9] Lu, Lei and QiuHong Jia. As a self-respecting college student in his future work, Ents shows a higher level of professional adaptability? From the dual perspective of teachers and students. *The frontier of psychology*, 13, 2022: 1011447. DOI: 10.1093/eurpub/ckae114.195.
- [10] Bet neh, Baye Ashebir and Alemu Hailu Anshu. CurRiculum The loyalty of English teachers in the context of Ethiopian public universities and the factors affecting teachers' implementation. *Educational challenges*, 29, 1, 2024: 28-45. DOI: 10.5251/abjna.2010.1.5.969.973.
- [11] Zepeda. S. Mels, R. S., Benson. B, N. The call of the teacher leader. *New Jork Eye Am Kducation*, 17, 2003. DOI: 10.1177/1741143206068216.
- [12] Stryker, S. And Burke. Past, present and future the letter of identity theory. *Social quarterly*, 63, 2000: 284-297. DOI: 10.2307/2695840.
- [13] Castner D. Deny curriculum-based teacher leadership. *Course and Teaching Dialogue*, 19, 2017: 149-151. DOI: 10.2307/2695840.
- [14] C'lark. US dollar. N. And Clark. D.C. Teacher leadership is the basic element of education and learning. *Middle School Jurncl*, In 2005:50-55. DOI: 10.1177/1942775114525046.
- [15] Hawthorne. R.D. Mike., And James. R. Principal and course leaders. *People and education*, 5, 1995: 111. DOI: 10.1177/0192636508320990.
- [16] Hopkins. M. Spiral. J.P. Jacobovich, P. & Liton. R. and Natheiatrics' infrastructure redesign and teaching reform. *Flerental School Periodical*, 11, 2013: 200-224. DOI: 10.1037/e382702004-001.
- [17] Cao Erlei. From "aphasia" to "participation": rebuilding the relationship between teachers and courses. *Educational theory and practice*, 35, 16, 2015: 55. CNKI: SUN: JYLL.0.2015-16-013.
- [18] King Fen of Shu. Role mechanism and promotion strategy of teacher course leaders. *Social Science Frontline*, 06, 2022: 251-255. DOI: 10.3969/j.issn.1008-598X.2013.04.013.
- [19] Yang Xianghong and Shen Feng. Dimension in-depth cultivation of research and training: regional practice to improve teachers' curriculum leadership. *Shanghai Education and Scientific Research*, 11, 2018: 64-67. CNKI: SUN: SJYY. 0.2018-11-017.

Contribution of Individual Authors to the Creation of a Scientific Article (Ghostwriting Policy)

- Haixuan Wang is responsible for writing the thesis and model architecture.
- Jie Gao is responsible for literature review and format optimization
- Chenlin Wang was responsible for the data processing and analysis of the thesis.
- Mohd Ridhuan was responsible for the overall supervision of the thesis.

Sources of Funding for Research Presented in a Scientific Article or Scientific Article Itself

This research did not receive any funding.

Conflict of Interest

The author has no conflict of interest to declare.

Creative Commons Attribution License 4.0 (Attribution 4.0 International, CC BY 4.0)

This article is published under the terms of the Creative Commons Attribution License 4.0

https://creativecommons.org/licenses/by/4.0/deed.en_US

APPENDIX

Table 1. Defines the ons and description of the main variable

Variable type	Variable symbol	Variable name	Measurement method
Derived Variables: Scientific Research Ability	Ln paper	The number of papers published	Ln (1+ paper)
	Lnbook	The number of published scientific and technological works	Ln (1+ book)
Indium-dependent variables: teacher characteristics	Professor	The number of scientific researchers with senior titles	Ln (Professor)
	Ln researcher	The total number of scientific researchers	In (researcher)
Independent variable: scientific research carrier	Ln program	The number of ects participating in or carrying out scientific research projects	In (1+ program)
	Ln Conference	Number of Participants i International Academic Conference	In (1+ meeting)
Independent Variables: Regional Features	Lngdp	Per capita GDP	Ln (gdp)
	University teachers and students	The proportion of Loc to all universities and regional universities	Ln (number of local universities/regional universities)
Independent Variables: Research and Development	Inrd.	Investment in basic research and development	Ln (1+rd)
	Province.	Regional virtual variables	
Control variables	Year	Annual virtual variables	Take 2001 as the reference year

Table 2. The letter T can describe the statistics of 2 related matrices and variables

	1	2	Three	4	5	6	7	.8	9
1 ln paper	1								
2 Inner book	0.59	1							
3ln Professor	0.60	0.56	1						
4ln researcher	0.64	0.59	0.88	1					
5ln program	0.64	.054	0.18	0.29	1				
6 l in the meeting	.057	0.50	.024	0.13	0.39	1			
7 universities	-.037	-0.33	-0.25	-0.36	-0.42	-.037	1		
8 lngdp	0.22	0.42	0.15	0.14	0.25	0.36	-0.27	1	
9	0.56	0.48	0.34	0.31	0.43	0.19	-0.35	0.47	1
Instructions. ...	.956	5.43	8.43	9.95	8.66	7.16	-0.11	10.09	11.87
The meaning of S.D.	0.99	1.14	.093	0.78	1.14	1.57	0.15	.079	1.78
Middleman	9.7	5.68	8.59	10.14	8.81	7.32	-0.07	10.2	12.06
.P25.	9.02	4.87	7.88	9.47	.8.05	6.12	-0.12	9.47	10.78
Page 75.	10.29	6.31	9.16	No. 10.53	9.48	8.33	0	10.67	13.25
Minutes.	7.06	.2.3	5.96	7.98	5.25	3.14	-0.77	8.47	7.16
Maximum value.	11.36	7.11	9.93	11.2	10.69	10.27	0	11.65	.15.19
N.	510	510	510	510	510	510	510	510	510

Table 3. Basic regression results

DV: Paper	(1). OLS_model.	(2) FE_model.	(3) Re_model	(4) DK_model.
Professor	0.365*** (0.09)	0.258*** (0.09)	0.341*** (0.08)	0.253 (0.16)
In the program	0.472*** Number (0.12)	0.687*** (0.09)	0.622*** (0.09)	0.699*** (0.17)
Ingep	0.178 (0.16)	0.152 (0.20)	0.157 (0.13)	0.158** (0.07)
Inrd.	0.347*** (0.07)	0.117* (0.08)	0.207*** (0.07)	0.155*** (0.04)
Meet	0.182** (0.07)	0.112* (0.06)	0.133** (0.05)	0.114 (0.10)
University teachers and students	0.654 (0.42)	0.032 (0.32)	0.142 (0.30)	0.032 (0.17)
Constant.	-6.282*** (1.55)	-4.982** (1.98)	-5.962*** (1.31)	-4.923*** (0.90)
Province.	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
N.	510	510	510	510
F (Wald chi2)	1102.30	240.67	15803.73	236.12
P_value	0.000	0.000	0.000	0.000
R-sq (internal)	0.952	0.916	0.915	0.916

The bracket is se, *** $P < 0.01$, ** $P < 0.05$, * $P < 0.1$

Table 4. Results of decimal regression

DV: Paper	(1) Questi on 25.	(2) Q50.	(3) Questio n 75.	(4) Quest ion 95.
Professo r	0.257* (0.15).	0.223** (0.11)	0.216 (0.15).	0.174 (0.24)
Ln program	0.721* (0.16).	0.687*** (0.12).	0.677** (0.17)	0.666 (0.25)
Ingep	0.057 (0.19)	0.175 (0.14).	0.245 (0.18)	0.421 (0.32)
Inrd.	0.121* (0.07)	0.158*** (0.05)	0.198** (0.07)	0.402 (0.32)
Ln Confere nce	0.145* (0.06)	0.115*** (0.04)	0.098 (0.06)	0.068 (0.10)
Universi ty teachers and students	0.008 (0.41)	0.035 (0.31)	0.057 (0.42)	0.086 (0.68)
Omit	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
N.	510	510	510	510

The bracket is se, *** $P < 0.01$, ** $P < 0.05$, * $P < 0.1$

Table 5. Results Enough Stability Test

DV: lnbook	(1) .OLS_M olel	(2)FE model.	(Three) Re-. . Model.	(4) DK model.
Researcher	0.854*** (0.25)	0.254*** (0.26)	0.414*** (0.12)	0.484*** (0.18)
Ln program	0.125 (0.17)	0.484*** (.0.02)	0.404*** (0.08)	0.704*** (0.09)
Ingdp	-0.12 (0..15)	0.224*** (0.20)	0.354*** (0.07)	0.147*** (0.09)
Inrd.	0.198*** (0.12)	0.774*** (0.21)	0.241*** (.0.02)	0.281*** (0.05)
Meeting	0.118*** (.0.02)	0.123*** (.0.02)	0.125*** (0.01)	0.222*** (0.04)
University teachers and students	0.452 (0.07)	0.123*** (0.25)	0.154 (0.12)	-0.065 (.0.35)
University teachers and students	0.485 (0.34)	-0.054 (0.25)	0.425 (0.26)	-0.065 (0.36)
Constant.	-5.118*** (1.85)	-12.128*** (.2.47)	-8.128*** (1.35)	-12.138*** (1.54)
Public Relations OVInCentigrad eAnd	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes
N.	510	510	510	510
F [Wald chi2)	222.88	90.25	212..58	57.54
P_value	0.000	0.000	0.000	0.000
R-sq (inside)	0.842	0.627	0.615	.0.327

Note: se, ***P<0.01, **P<0.05, *P<0.1 in brackets