Hindawi
Mobile Information Systems
Volume 2023, Article ID 9802502, 1 page
https://doi.org/10.1155/2023/9802502

Retraction

Retracted: Identification of Scientific Research Evaluation Indicators of College Teachers Based on Wireless Communication Network

Mobile Information Systems

Received 13 September 2023; Accepted 13 September 2023; Published 14 September 2023

This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

(1) Discrepancies in scope

(2) Discrepancies in the description of the research reported

(3) Discrepancies between the availability of data and the research described

(4) Inappropriate citations

(5) Incoherent, meaningless and/or irrelevant content included in the article

(6) Peer-review manipulation

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

[1] Z. Li and Z. Qi, "Identification of Scientific Research Evaluation Indicators of College Teachers Based on Wireless Communication Network," *Mobile Information Systems*, vol. 2022, Article ID 5408382, 11 pages, 2022.

Hindawi
Mobile Information Systems
Volume 2022, Article ID 5408382, 11 pages
https://doi.org/10.1155/2022/5408382

Research Article

Identification of Scientific Research Evaluation Indicators of College Teachers Based on Wireless Communication Network

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Received 21 June 2022; Revised 26 July 2022; Accepted 31 August 2022; Published 26 September 2022

Academic Editor: Yanyi Rao

The evaluation indicator of teachers' scientific research is a very important criterion in the evaluation of teachers' scientific research in colleges and universities. Generally, indicators are divided into three levels, and each indicator setting must be very precise. Many indicator systems for college teachers have been created at present. However, there are some problems in the identification of indicators in the evaluation process. There will be cross-repetition between indicators, and the quantification of indicators is not detailed enough, resulting in inaccurate results. To solve these problems and make the evaluation results more fair and accurate, this paper took a university as a case, a deeply discussed method based on wireless communication network, and conducts an experimental analysis on the identification of university teachers' scientific research evaluation indicators. Using the method of wireless communication network, the problem of index identification was analyzed, and the experimental research of index identification was carried out by using wireless communication network. The results showed that the index of engineering teachers' practical ability was relatively high, and the weight value was 0.38. The liberal arts was relatively low, and the weight value was only 0.26. However, on the cognitive index, the weight value of liberal arts was the highest, with the weight value of 0.33 while that of engineering was only 0.28. It can be seen that the method applied in this paper greatly improved the efficiency of the whole evaluation, and it made the index recognition more rapid and accurate. Therefore, further research on wireless communication networks and index identification can be considered.

1. Introduction

Colleges and universities gathered a lot of outstanding scholars, and they are rich in resources, which are favorable conditions for teachers to conduct scientific research. With the country's emphasis on this aspect of development, university scientific research has almost become the leading part of China's scientific research. And it made great contributions to China's scientific research achievements. However, due to the rapid development of society, the depth and breadth of scientific research are constantly expanding, the level of scientific research ability of teachers is also getting higher and higher, and this scientific research work is also becoming increasingly complicated. If colleges and universities want to keep up with the pace of the times and meet the ever-changing needs of the situation, they need to provide an effective evaluation index system for teachers' scientific research. However, the current evaluation indicators cannot accurately identify different types of teachers in different subjects. There are also many scholars who study the evaluation index system of this project, but few studies are based on wireless communication network technology. The wireless communication network combines two technologies of network technology and radio communication technology. It has strong work efficiency and high convenience. Therefore, this paper attempted to use this technology to study the identification of teachers' scientific research evaluation indicators, hoping to obtain the expected results.

Due to the steady development of scientific research in colleges and universities, increasingly scholars have

conducted research on the evaluation index system of teachers' scientific research. Among them, Hong proposed the principles and specific performance evaluation index system by constructing the basic course teaching team performance evaluation index system [1]. However, he ignored the evaluation index of scientific research achievements when constructing the performance evaluation system. Sadegh assessed the current applicability of articles in which college faculty show important advances in medicine [2]. However, he did not focus on the standards of scientific research evaluation indicators in the article. Yuan used a new evaluation algorithm to evaluate the scientific research ability of college teachers more comprehensively and effectively [3]. However, he did not show the flow of the algorithm in the text. Qi attempted to make the evaluation system of college teachers scientific, systematic, and standardized to promote the growth of teachers' research level [4]. However, none of the data he used in the paper was up-to-date. By studying the research reports of other scholars, Fan studied the internal control of colleges and universities based on two evaluation frameworks to conduct scientific and reasonable evaluations [5]. However, he did not take into account the variable that varies from school to school in his research. Chavda developed and implemented a structured evaluation model to develop research skills in medical schools [6]. However, the model he used in the paper was not very suitable for this topic. Azouaou assessed the impact of research indicators on the acquisition of basic knowledge for conducting research projects in three conceptual, operational, and editorial stages [7]. However, the theoretical knowledge he quoted in the article was too rich and lacked personal discussion.

Scientific research can be said to be a relatively innovative activity, which can well help the development of colleges and universities and promote the progress of the national scientific and technological level. The innovation of this paper is that it used a different method, wireless communication network, to conduct research on the identification of university teachers' scientific research indicators. In the research process, a large amount of relevant data were called and analyzed in a convenient way to provide support for the future teacher research evaluation system.

2. Method of Identifying the Evaluation Index of Scientific Research of Teachers in Colleges and Universities

2.1. Evaluation Indicators of Scientific Research of College Teachers. The work of college teachers is mainly in two aspects, one is to teach students and the other is to conduct scientific research [8]. The scientific research evaluation is a way to check the scientific research level of teachers. After the evaluation, the degree of the teacher's scientific research level can be quickly obtained. Then, according to the teacher's scientific research level, his future training, upgrades, and reward can be decided. An effective evaluation can effectively improve the scientific research level of teachers and improve the teaching level. It is also of great help to the growth of the country's scientific research strength.

Generally, the performance inference method is used to evaluate teachers' scientific research ability. Among them, the relationship between scientific research performance and scientific research ability is shown in Figure 1.

As can be seen from Figure 1, the relationship between scientific research ability and scientific research performance has a certain identity, and there is a certain interaction [9]. Performance can reflect the ability of teachers, and many evaluation methods are realized by studying teachers' performance. Because performance can well represent the state of the teacher's ability level, ability is the intrinsic factor of performance, and ability can determine performance. Generally speaking, teachers with excellent ability will perform well. However, competencies are sometimes influenced by external environments, such as teamwork or laboratory environments. Therefore, scientific research performance can represent scientific research ability, but it cannot represent the full ability of teachers.

Generally speaking, the evaluation indicators mainly have the following parts as shown in Table 1.

As shown in Table 1, there are generally four evaluation indicators. The first is the origin indicator [10]. It means what the teacher produces directly after conducting scientific research such as academic papers, monographs, and invention patents. The second is the additional index, which means that it is one level higher than the original index. A high-quality part is selected for addition based on the original index, such as scientific and technological rewards and citations of books. The third is the derived indicator, which is one level higher than the first two indicators. It is based on the first two indicators, and it represents a kind of social recognition for scientific and technological teams and individuals such as directors of societies and research societies, which represent the social recognition of scientific researchers. The fourth is the support indicator. It is the main support for scientific research, and it can guarantee the continuous output of science such as grant funding and human resources. However, after investigation, it can be found that when colleges and universities conduct the evaluation of teachers' scientific research ability, the evaluation index system will not be specially changed for different types of teachers. This is very unreasonable. Even in the same school, there are different disciplines, and the difference between liberal arts and science is still very big. The type and nature of scientific research activities undertaken by the faculty are largely different. Some teachers do basic activities, and some teachers do applied activities. Therefore, the evaluation indicators should be changed with different types of activities to preserve the characteristics of teachers' scientific research and ensure the objective nature and comprehensive nature of the entire evaluation system. Through this way, the enthusiasm of teachers to actively participate in the work is increased.

Then, the main factors that affect individual performance are studied as shown in Figure 2.

As shown in Figure 2, it can be seen that there are mainly four influencing factors. The first is skills. Skills can

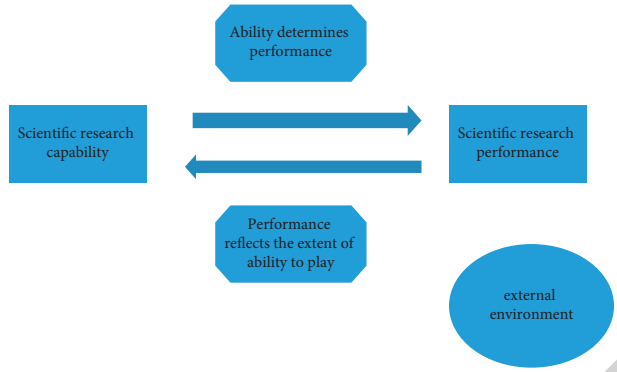


Figure 1: Concepts of research performance and research capacity.

Table 1: Evaluation metrics.

	The index type	The specific content
1	Source raw indicators	Academic papers, monographs, invention patents, identification, R&D achievements, and scientific and technological services
2	Additional indicators	Science and technology awards, citation, be called, be picked, be loaded and practical application, etc.
3	The derived indicators	Association, research association, professional journal editorial board, etc.
4	Support indicators	Funded funds, human resources, etc.

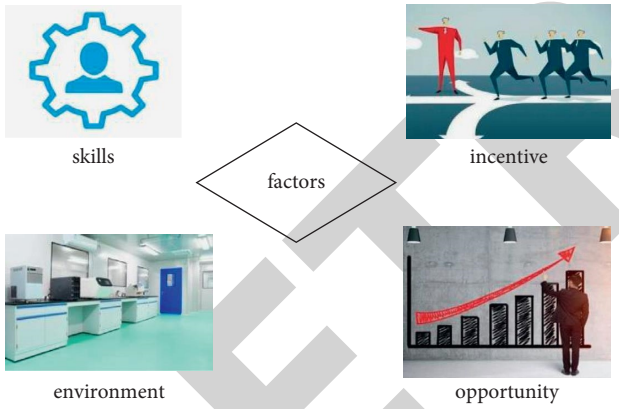


Figure 2: Main factors affecting individual performance.

be said to be the sum of personal abilities. In the process of scientific research, mastering the output of personal skills can effectively improve the level of personal performance [11]. If skills are lacked when working with people in a team, the contribution to scientific research will often not be great, so personal skills are the main factor affecting performance. The second is incentives. With the blessing of excellent skills, when perfect results are produced, although there is no corresponding reward, it will also affect the motivation of teachers in scientific research [12]. Just imagine, if the emphasis is put on the reward, teachers can make teachers work harder to carry out scientific research after receiving spiritual or material encouragement. The third is the environment, which has a great influence on teachers' scientific research. The most important thing in the scientific research process is the teamwork and the accumulation of previous scientific research. If the teamwork and cooperation are not good, the output of scientific research results will not be good, and the performance of teachers will decline. Therefore a good research environment is also essential to improve the ability of teachers. The fourth is opportunity. After entering the job, it is essential for teachers to seize the right opportunity. A suitable opportunity allows teachers to effectively improve themselves and display their abilities. It can also make a contribution to national scientific research.

Indicator is a way to quantify teachers' scientific research ability. The setting of indicators should be very precise and easy to be effectively identified [13]. The principles of evaluation index design are shown in Figure 3.

As shown in Figure 3, there are five design principles for scientific research evaluation indicators. The first is the principle of specificity. That is to say, the indicators must be very clear and specific and should not be too general. The indicators should be refined according to other factors such as the type of activities that teachers conduct, and the indicator settings should be flexible. The second is the measurable nature. The design of indicators should not be too written and should be set as quantifiable behaviors that can be obtained with data and information. The third is attainable, which means that the indicator is that which teachers can accomplish through their own efforts. However, this indicator cannot be set too low. If it is too low, the whole evaluation will be meaningless. The fourth is correlation, which is essential for evaluation indicators. Evaluation indicators must be related, and it must be related to the scientific research work of teachers. The sixth is time-limited, which means that the indicator must set a time unit, and the starting time for completing the indicator needs to be determined [14].

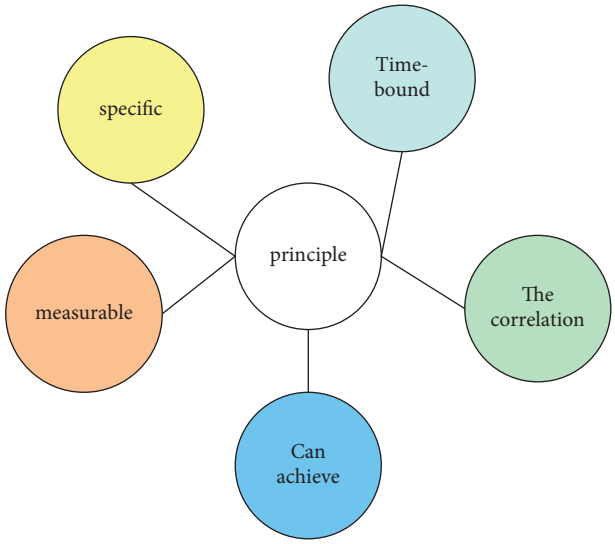


Figure 3: Design principles.

2.2. Wireless Communication Network. Wireless communication network refers to a wireless computer network, a technology that can generate information connections without cables [15]. Its development is actually very fast, and its application range is also very wide. About this technology, it is now a household name. However, due to the improvement of people's material living standards, the requirements for wireless communication network technology are also increasing. The coverage of wireless networks is very large [16] as shown in Figure 4.

As shown in Figure 4, it can be found that the wireless network covers a very large area in the entire city, almost everything is covered [17]. The development of computer technology and network technology is stable and rapid, and various industries have also applied this technology. It is not difficult to find that the most used network is the local area network at present. Although the existence of the wired network before this also has its advantages, the transmission speed is fast, and the popularity in the market is also very good. However, the generation of wireless networks has greatly reduced the cost of the product, and its potential in the market is unlimited. It has the advantages of reliable communication, low cost, and high flexibility that can make people's connections more convenient.

In regard to wireless communication networks in general, cellular networks come to mind. It is named cellular network because of the arrangement of base stations, which looks like a cellular frame [18]. A schematic diagram of a cell and a basic communication mode diagram are shown in Figure 5.

As shown in Figure 5, the cellular wireless communication network system is composed of mobile nodes, fixed base station, wired backbone networks, and switching control centers. The connection between mobile nodes and base stations is one-hop, also known as a single-hop wireless network [19]. Information is transmitted between base stations and wireless nodes through wireless signals. The switching center and the base station are connected by wired cables. In this way, the switching center can be connected to the public network, allowing users to communicate with the outside world. If the cellular network has a large coverage area, there will be a problem of blind spots. Blind spots are generally caused by obstacles blocking electromagnetic waves, such as subway stations, or the shadows of tall buildings. These places will have poor signal and poor communication conditions. There may also be problems with hotspot areas, mainly because the number of people using the network is too large, causing the network to be congested and the system to crash. It happens generally in areas such as commercial centers and traffic arteries. It has also been envisaged to ameliorate crowding by amplifying broadband. However, the effect is not very good, and it will affect the surrounding signal. Then came the microcell technology, which has small coverage, low power, and little interference with nearby signals. It is very good to deal with the situation of network congestion. However, since this kind of network has been superimposed many times, even if it can effectively solve the problem of blind spots and hot spots, it will cause trouble to the terminal.

After consulting the relevant information and summarizing, the advantages of the wireless communication network can be found as shown in Figure 6.

As shown in Figure 6, it can be found that its advantages can be summarized into five points. The first point is convenience. This technology combines wireless network and wireless communication technology. In terms of flexibility, it combines the advantages of the above two technologies and will be more flexible in information transmission. It is able to support roaming, and the mobility is also very good. The second point is affordability. Its carrying capacity is much better than that of a single communication technology, and it can withstand the transportation of big data. The third point is speed, which is much faster than wired transmission, and it is not limited to the location of the cable, as long as it is covered by wireless information that can be received. Even for very large data, the transmission speed can achieve a certain efficiency. The fourth point is aesthetics. The previous wired network was built with cables, which would lead to unsightly urban lines. The fifth point is work efficiency. Wireless networks are significantly more efficient than wired networks. The transfer rate is significantly enhanced.

2.3. Related Algorithms. The traditional evaluation system relies on the evaluation of the system's simple network performance, but with the increasing complexity of evaluation indicators, more mature technologies are needed to help in the identification of evaluation indicators. This processing mode can rely on a series of models to achieve [20].

Assuming that there is M_{ND} system user, the power value received by the system is

$$O_Y = M_{TH} + B_{SG} \times M_{ND} Q_P. \quad (1)$$

If user K receives power Q_P to the system, then

Figure 4: Schematic diagram of wireless network coverage.

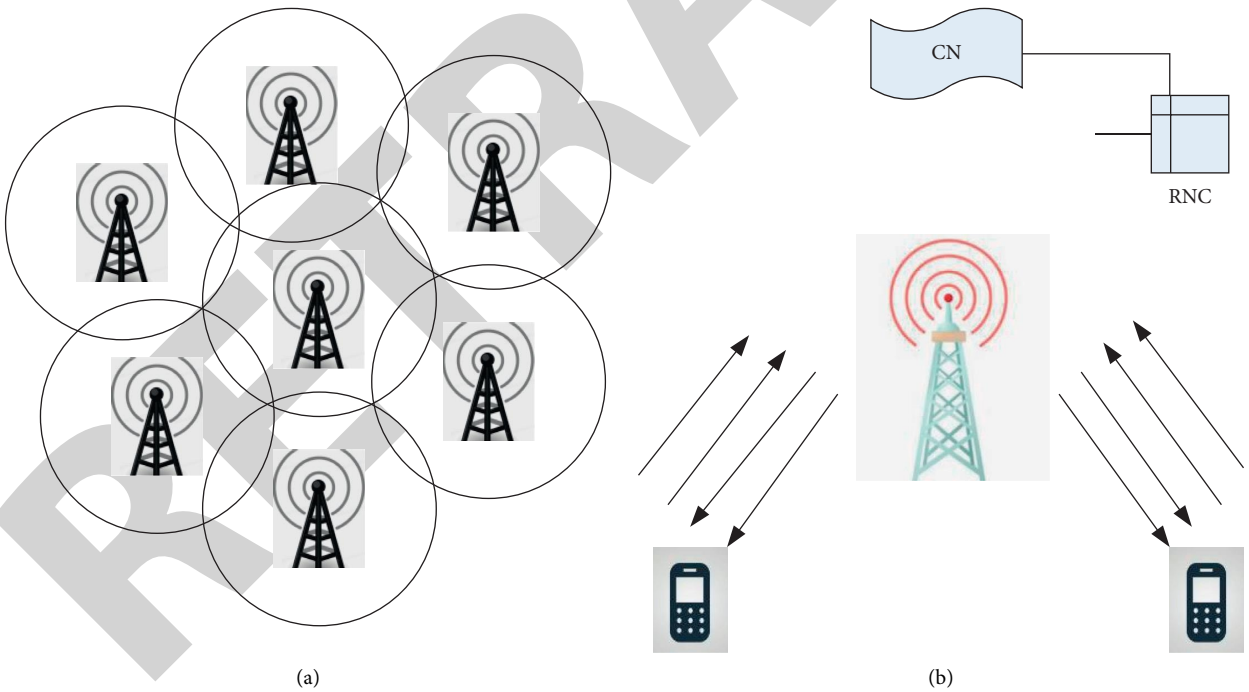


Figure 5: Cellular network. (a) A cell. (b) Communication mode.

$$A_K = \frac{Q_P}{O_Y} = \frac{Q_P}{M_{YJ} + B_{SG} \times M_{ND} Q_P}. \quad (2)$$

Therefore, it is deduced that after M_{ND} users using the system, the total load is

$$A = \sum_{K=1}^{M_{ND}} N_{SG} \times A_K = \frac{B_{SG} \times M_{ND} O_P}{M_{YJ} + B_{SG} \times M_{ND} Q_P}. \quad (3)$$

If the system needs an energy of R_N to receive the signal of user K, the expression can be obtained as

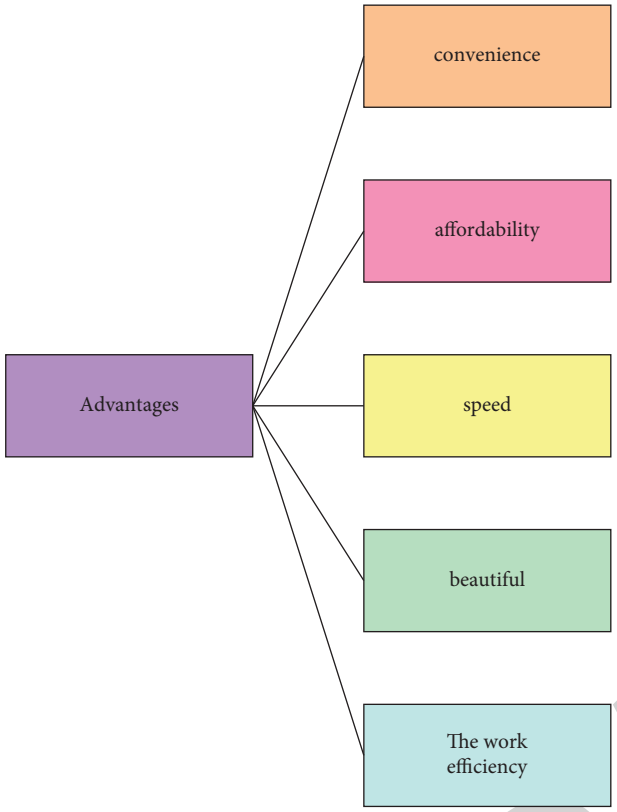


Figure 6: Advantages of wireless communication networks.

$$\left(\frac{R_N}{M_P}\right)_K = \frac{QH_K \times Q_P}{M_{YJ} + B_{SG} \times M_{ND} Q_P - B_{SG} Q_P}. \quad (4)$$

Among them, QH_K is spread spectrum, then get the formula Q_P as follows:

$$Q_P = \frac{[R_N/M_P]_K}{([R_N/M_P]_K/QH_K) + 1} \times O_Y. \quad (5)$$

The limit capacity of the network is 100% load, then it can get

$$100\% = \frac{M_{ND}}{1 + (OH/(R_N/M_P)B_{SG})}. \quad (6)$$

At this time, the limit capacity value M_{ND} can be expressed as follows:

$$M_{ND} = 1 + \frac{QH}{(R_N/M_P)B_{SG}}. \quad (7)$$

Among them, the relationship between R_N and M_P can be expressed as follows:

$$\frac{R_N}{M_P} = \frac{D}{M}\frac{E}{T}. \quad (8)$$

If $D \geq D_{MINS}$, then R_N and M_P will satisfy

$$\frac{R_N}{M_P} \geq D_{MINS} * \frac{E}{T}. \quad (9)$$

In the operation of the real system, the identification of indicators is relatively weak. Therefore, on the basis of the existing indicators, the interference problem of identification should be considered such as the interference of multiple users and the interference caused when there are many indicators. Among them, the interference formula can be expressed as follows:

$$O_{RC} = \sum_{L=1}^{M_{TD}} O_L. \quad (10)$$

The total influencing factors can be expressed as follows:

$$O_Y = O_{OM} + O_{RC} = O_{OM}\left(1 + \frac{O_{RC}}{O_{OM}}\right) = O_{OM}(1 + G). \quad (11)$$

If the moving coordinates of the system are functions of the variables, the energy required of N_K is

$$\left[\frac{R_N}{M_P}\right] = QH_K \frac{Q_{OK} A_{YK}}{M_{YJ} + O_Y}, \quad O_Y = \gamma O_{OM} + O_{RC}. \quad (12)$$

Under control, only part of the disturbance remains

$$\gamma O_{OM} = \gamma Q_{\mathrm{MAX}} A_{OK}, \quad O_{RC} = \sum_{Y=1}^{M_{ND}} Q_{\mathrm{MAX}} A_{YK}. \quad (13)$$

A digital model can be built based on it. Assuming that the minimum number of base stations required by the system needs to be met, it can be expressed as follows:

$$\mathrm{MING}_1 = |\delta|. \quad (14)$$

If the length of the set is expressed as δ, the power allocation of the system can be formulated as follows:

$$\sum_{K \in k} Q_{\mathrm{MAX}} \leq Q_{\mathrm{MAX}}. \quad (15)$$

User M_O of the system cannot exceed the maximum allowed total, then get

$$M_O \leq M_{\mathrm{MAX}} * \rho^L. \quad (16)$$

If the coverage area must be fully covered, then

$$\sum_{I=1}^{N}\left(\frac{D_O^L}{D^L}\right) = T^L. \quad (17)$$

Finally, the value range of the decision variable becomes

$$(C_O, U_O)\epsilon F. \quad (18)$$

3. Experiments on the Identification Scientific Research Evaluation Indicators for Teachers in Colleges

3.1. Survey of the Current Situation. First, the literature related to the scientific research evaluation of college teachers on CNKI [21] was searched. The result is shown in Figure 7.

As shown in Figure 7, the number of research papers has stabilized in recent years [22]. From 2017 to 2021, there is no significant growth, but the overall trend may have a slower growth in the later period. The year with the largest number of papers was 2018, with 23 papers. The minimum year is 2020, and the number is 9. It cannot be said that this year was anomalous, as it is estimated that the number of articles in 2020 will definitely exceed that in 2021. Then, 15 articles were published in 2017 and 2019. Compared with other years, these two years were relatively stable.

In addition to the references, the foreign evaluation index systems also were investigated as shown in Table 2.

From Table 2, it can be obtained that Australia pays more attention to the output of scientific research quality [23]. In fact, the main supporter of scientific research work in Australia is the government, and the entire evaluation body is also the government. The quality of the results will directly affect the funding for scientific research in the future. This is why there is a reputation indicator in the first-level indicator. Australia is mainly assessed on a subject basis. According to the data, it will fund more internationally competitive disciplines and institutions. From the table, this country focuses on the quality and quantity of scientific research output and can be clearly understood. It will pay attention to its application in real life and its international influence. And the country's evaluation method is peer evaluation.

The number of documents is counted, and foreign index systems are also listed. In the following, the problems existing in most university index systems will be analyzed.

First of all, most of the evaluation indicators of colleges and universities are very general. Even if different types of scientific research activities are divided, there is no subdivision on the secondary and tertiary indicators; thus, the results will be very vague and the specific quantitative indicators will not be clear. Secondly, the weights of secondary and tertiary indicators in most colleges and universities are clearly missing. The setting of indicators needs to show a hierarchy, that is, the gradient of the indicators. There must be a weight relationship between each indicator. If there is no quantification of weights, the final assessment result is only a formalism. The third point is that most of the indicators of colleges and universities have intersections. Although there should be links between indicators, they should not be repeated and intersected, which will make the entire assessment continue to repeat. It affected the objective and scientific nature of the assessment. The fourth point is that teachers' own development planning indicators are not perfect. Scientific and reasonable indicators are of great help

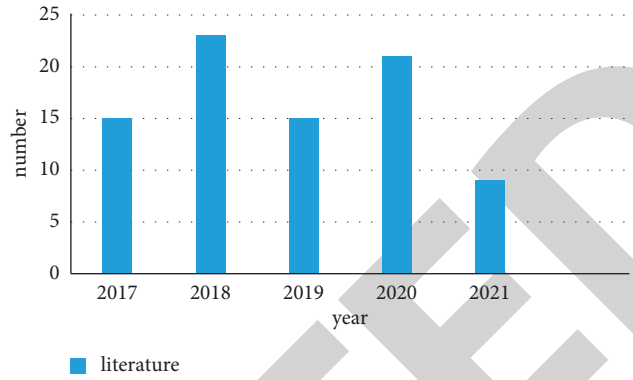


Figure 7: Literature statistics.

in motivating teachers to devote themselves to scientific research. In addition to actively paying attention to teachers' performance, they should also pay attention to teachers' own development plans. This will help to improve the level of teachers.

3.2. Identification Experiment of Scientific Research Evaluation Index Based on Wireless Communication Network. It can be concluded from the above that there are still many imperfections in the indicators of colleges and universities, so this paper proposed to use the method of wireless communication network to conduct experiments on the identification of these indicators and to verify the advantages of using this method in the identification of indicators.

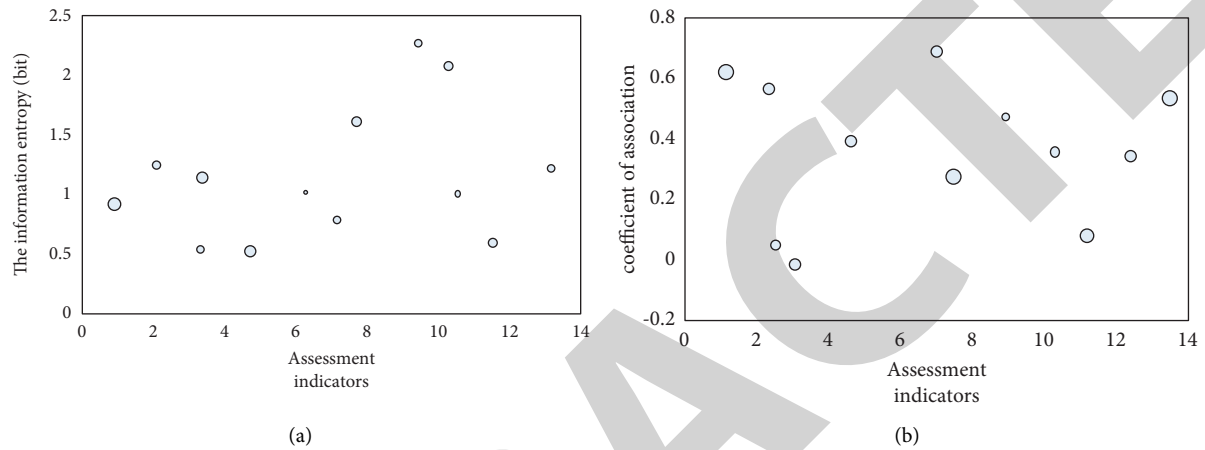
Supposing that a school conducts teacher assessment and there are 12 assessment indicators. Based on the method of wireless network communication, the information entropy map of the assessment index and the correlation coefficient map of the index results can be obtained as shown in Figure 8.

It can be seen from Figure 8 that the information entropy of different indicators is quite different. The least information entropy is the editor because only a few people have the editor, and the amount of information provided when evaluating everyone is limited. Among the correlation coefficients between all indicators and assessment results, the three indicators of the number of papers in the journal A, national projects, and provincial projects are the highest. In addition, the correlation coefficient of the author is negative, that is, the negative correlation. The reason is that editing has almost no effect on scientific research assessment, and it happens that there are a few editors with poor assessment results among several samples, resulting in a negative correlation between editing and assessment results. In this case, the correlation coefficient needs to be artificially set to 0. This shows that based on wireless communication network technology, it can be very helpful to identify scientific research indicators. It greatly improved the evaluation efficiency [24].

The information entropy and relationship graph were listed above, which proved that the wireless communication network was very suitable for the identification of indicators. Next, multiply the two to get the result as shown in Figure 9.

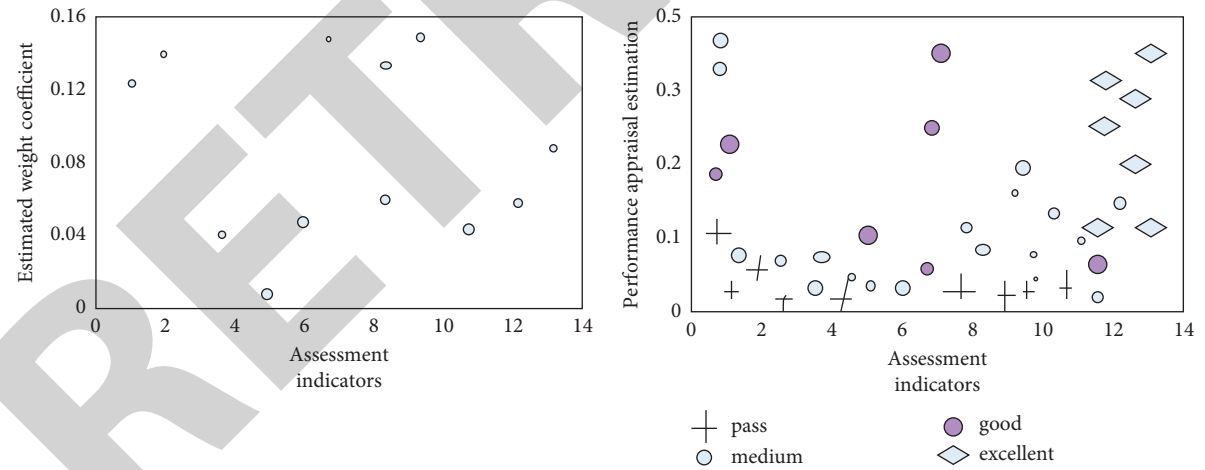
Table 2: Australian research evaluation system.

	Level indicators	The secondary indicators
1	The quality of scientific research	Level of publications and conferences; reference analysis; peer review; international and domestic research revenue after peer review, etc.
2	Research quantity and research activities	Income and research output
3	Research and application	Scientific research commercial investment and other applied measurement indicators
4	Reputation	The number of editors of reputable publications; the number of participants in well-known academic groups and the number of winners of national scientific research prize



(a) (b)

Figure 8: Evaluation index identification experiment result 1. (a) Information entropy of assessment indicators. (b) Correlation coefficient between assessment indicators and assessment results.



(a) (b)

Figure 9: Evaluation index identification experiment result 2. (a) Weight estimates. (b) Sample distribution map after index weighting.

As shown in Figure 9, it can be found that the information entropy difference of different indicators is relatively small, mainly because the correlation coefficient difference is relatively large. Therefore, the graphs listed in this article are mainly dominated by correlation, and then, it is combined with information entropy to assign weights. Because if only the correlation is only considered, and the information entropy is not considered, it will lead to difficulty in identifying the indicators, and finally, the difference between the samples cannot be identified. If only information entropy is considered and correlation is not considered, it will not help the assessment results. It can be seen from Figure 9 that the weight coefficient is different from the component of the assessment index. During the assessment, it also finds that there are some indicators that only a few people have reached the value, and the amount of information is relatively small, so the weight is smaller than the core. This kind of indicator setting is actually not in line with the assessment

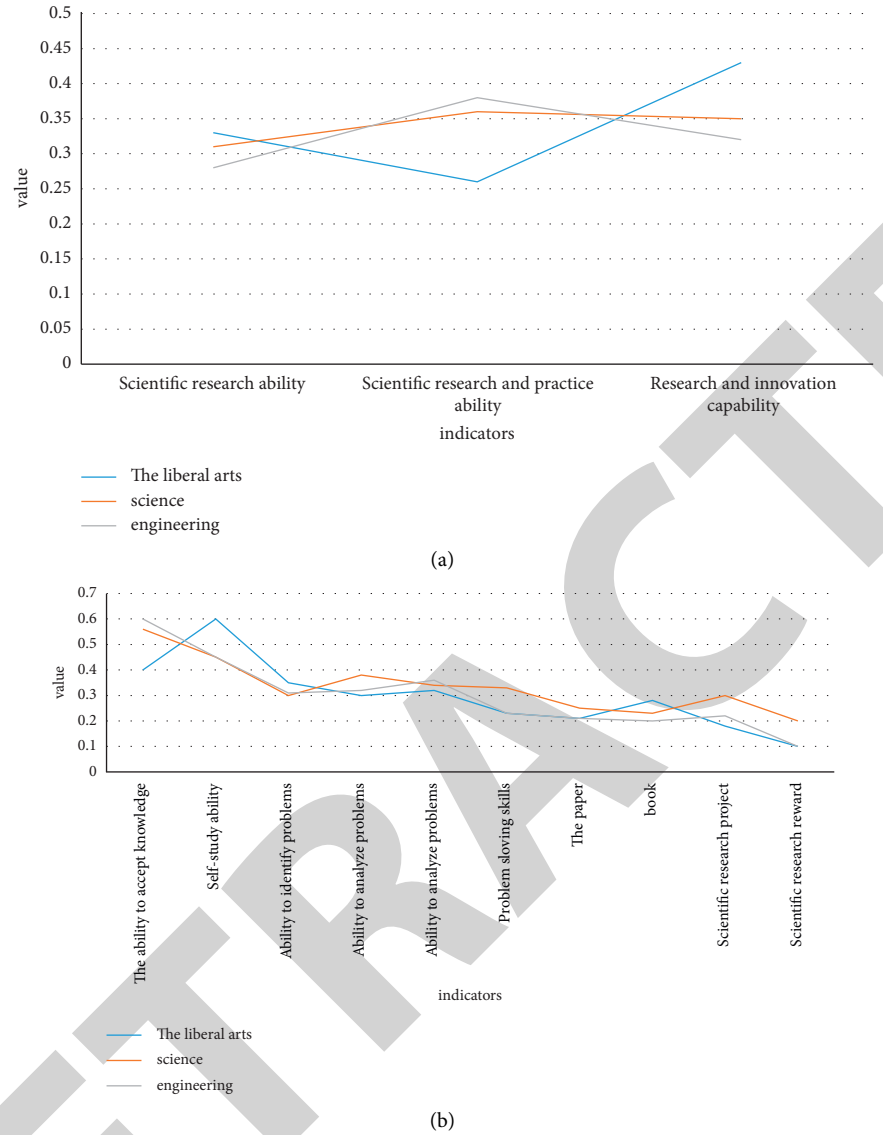


Figure 10: Analysis of indicator weight system. (a) Comparison of weight coefficients of primary indicators. (b) Comparison of weight coefficients of secondary indicators.

setting. In the identification of indicators, everyone should be able to have, and teachers should use the differences in indicators to participate in the evaluation, which is conducive to the final result. Later, to measure the pros and cons of the weight, the distribution of the sample is estimated by multiplying the indicator by the weight coefficient. It can be seen that there are different assessment levels displayed in the figure. And the sample distribution and the assessment results have a very good fit, indicating that this method is very reasonable. Because the correlation between the indicators is relatively small and the information is relatively small, the identification by the method of wireless network communication can well establish the evaluation model.

The three types of index weight system are analyzed by using the method of wireless communication network according to the scientific research evaluation index weight system of a certain school. The result is shown in Figure 10.

It can be seen from Figure 10 that in the evaluation process, the requirements for teachers' innovative ability are relatively high. In the figure of the first-level indicators, among the three subjects, it can be found that the weight value of the indicator of innovation ability is relatively high. Because the level of innovation ability of college teachers can determine the quality of scientific research output, the innovation capability has an essential position. And it can also find in the figure that the three subjects have different requirements in terms of practical ability. Engineering teachers' practical ability index is relatively high, with a weight value of 0.38, while liberal arts teachers are relatively low, with a weight value of only 0.26. However, on the cognitive index, the weight value of liberal arts is the highest, with 0.33, while that of engineering is only 0.28. Because most scientific research in engineering is produced in the laboratory, practical ability is essential for engineering.

Table 3: Research capabilities.

	Mean value	Standard deviation
Research cognitive ability	5.7600	0.83794
Scientific research and practice ability	4.600	1.12988
Research and innovation capability	72600	0.83794

Table 4: Research cognitive ability.

	Mean value	Standard deviation
The ability to accept knowledge	5.0000	0.71458
Self-study ability	7.5000	1.12988
Difference	2.5000	0.41530

Table 5: Research and practical ability.

	Mean value	Standard deviation
Ability to identify problems	6.7600	1.31279
Ability to analyze problems	5.7600	1.31279
Competence in solving problems	7.6000	1.12988

Liberal arts teachers, on the other hand, will be less concerned with practical ability. Among them, it can also be found from the figure that the weight values of the secondary indicators are basically similar in the three subjects. There are only minor differences. Liberal arts teachers have higher requirements for self-learning abilities than knowledge-accepting abilities while science and engineering require higher knowledge-accepting abilities than self-learning abilities; science requires a relatively high ability to analyze problems, which is also determined by the characteristics of science subjects. The teachers of the three subjects have basically the same views on the importance of scientific research awards, and their weights all are low. Scientific research awards belong to additional indicators such as papers, works, and patents. It should not be given high weight. Through the identification experiment of the index, it proved the superiority of the wireless communication network in identifying the index, which greatly increased the efficiency in the evaluation.

In the above, the weight value identification experiment was carried out on the first-level index and the second-level index. Next, the wireless communication network will be applied to analyze the reliability of the primary indicators. The reliability of the identification experiment is indicated. The results are shown in Table 3.

From Table 3, it can be concluded that the consistency of the indicators is very high, which fully meets the reliable requirements of the experimental reliability. And the deviation of the three indicators does not exceed 1.5. This showed that the results of the recognition experiments are very accurate.

The reliability analysis results of the second-level index of scientific research cognitive ability are shown in Table 4.

As can be seen from Table 4, although the value of the index is not very high, it meets the reliability requirements of reliability.

The following is an analysis of the reliability of the secondary indicators of scientific research practice ability, and the results are shown in Table 5.

It can be seen from Table 5 that the consistency of the three secondary indicators is relatively high and meets the reliability requirements. These three tables proved that the indicators used in this test meet the reliability requirements. It proved from the side that the wireless communication network can make the identification of indicators more efficient.

4. Conclusions

This paper studied and analyzed the identification of university teachers' scientific research evaluation indicators through wireless communication network. It drew a conclusion that the application of this method can be of great help in scientific research and evaluation of teachers. It can quickly and accurately identify and classify indicators. At present, there are still many deficiencies in the index setting of the current evaluation system, and the problem of cross-repetition often occurs in the identification index. However, the application of the method proposed in this paper can improve this situation. Therefore, it is recommended to consider this direction in the identification of indicators. Due to the limited space of the article, it cannot cover all aspects, and there are not many examples used in the research. This is also the limitation of this article. In the future, the author looks forward to using more real data to conduct deeper research and to dig more methods to help to identifying indicators. The author also firmly believes that there will be increasingly literature related to this topic in the future, and the establishment of a scientific research evaluation system will become increasingly in line with the needs.

Data Availability

The data underlying the results presented in the study are available within the article.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Acknowledgments

This work was supported by Social Science Fund of Shaanxi "Research on the Evaluation Index System of Applied University Teachers' Scientific Research in China," Social Science Fund of Xi'an "Research on Industrialization Mechanism Innovation of Scientific Research Achievements of Qin Chuangyuan," and Shaanxi Province Education Science Planning "13th Five-Year plan" 2020 annual topic "Research on Shaanxi Province Youth Extracurricular Sports Efficiency Improvement Strategy under the Background of Sports Power Strategy."

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