

Evidence—Based Decision Making of Independent Evaluation and Appointment of University Teachers' Professional Titles

Quan Liu¹ Zhiyuan Ma²

(1. Kyungil University, 50 Gamasil—Gil, Hayang—Eup, Gyeongsan—Si, Gyeongbuk, Korea

2. Zhongnan University of Economics and Law, Wuhan, China)

Abstract: The Ministry of education of China and other five departments jointly issued “the reform of streamlining administration, delegating powers, delegating power and optimizing service reform in the field of higher education,” proposing to reform the mechanism for evaluating the professional titles of university teachers, and directly transfer the right of evaluation of university teachers' professional titles to schools. The assessment of university teachers' professional titles has brought about many practical and possible changes, affecting the development of colleges and universities and teachers. Evidence—based decision—making is evidence—based decision—making. In the framework of evidence—based decision—making, this paper makes a theoretical analysis on the evaluation and appointment of university teachers' professional titles by using the evidence—based method. According to the general characteristics of evidence—based decision—making, combined with the reform of independent evaluation and appointment of university teachers' professional titles in China, and drawing on the "five steps" of evidence—based medicine, the practical process of independent evaluation and appointment of teachers' professional titles in Colleges and universities is formed, which is conducive to more rational evaluation and appointment of teachers' titles in the universities.

Keywords evidence—based decision—making, professional title of university teachers, independent evaluation and appointment

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1. Introduction

The Chinese government has gradually realized that the unified highly centralized professional title appraisal system has seriously constrained the development of colleges and universities, which is not conducive to the construction of university teachers and the improvement of teachers' quality, and can not meet the requirements of the current "

double first—class" construction. The decentralization of university teachers' evaluation right is closely related to teachers, which has become a hot topic in academic circles, especially among university teachers. When is the decision—making power of evaluation fully delegated to each university, what should be evaluated and how? How to ensure the fairness of evaluation and appointment? What kind of assessment can motivate teachers' work? Due to the

difference between the psychological preferences of decision-makers and the psychological expectations of teachers, there are potential deviations in the formulation of methods based on different psychological preferences. It is bound to explore a new approach to guide the evaluation and appointment of teachers' professional titles, evidence-based decision-making. This paper applies the evidence-based decision-making framework to the self-assessment method of university teachers' professional titles, to make the evaluation and appointment of professional titles in Colleges and universities more perfect with evidence-based, reasonable, and consistent with the development characteristics of teachers in each school.

2. Literature Review

Evidence-based medicine is also evidence-based practice. Its original meaning is "evidence-based practice". Its concept began with evidence-based medicine developed at the end of the 20th century. David L. Professor Sackett put forward an accurate definition of evidence-based practice: "carefully, accurately and wisely apply the best research basis available at present, combine the personal, professional skills and years of clinical experience of clinicians, consider the value and desire of patients, and perfectly combine the three to formulate treatment measures." (David L., 1998) Its logic tentacles of evidence-based practical philosophy are constantly extending to the practice fields of the adjacent humanities and social sciences, forming dozens of emerging disciplines, such as evidence-based pedagogy, management, social services, policy analysis, etc. In September 1998, the conference "evidence-based decision-making and its practice" was held in Britain, marking the formal introduction of the concept of evidence-based decision-making. The idea of evidence-based policymaking is derived from evidence-based medicine, that is, "evidence-based decision-making". It means that when making decisions and making plans, decision-makers put the best research evidence available at the core of policy-making and implementation and make decisions based on various information, combined with the wisdom and values of professionals. (Davies;

Buyse, Wesley, 2006) Evidence-based decision-making includes systematic and strict methods and rational analysis, enhancing the use of professional knowledge in the process of decision-making to achieve the optimal item selection. The ultimate goal of evidence-based decision-making is to ensure that policy intervention produces the best results while improving the government's effectiveness and reducing the waste of resources. (Tennant, S.; Clayton, A. 2010) The research on evidence-based decision-making at home and abroad involves the following aspects:

2.1 The Origin of Evidence-Based Decision

Many British scholars have analyzed the origin of administrative philosophy, such as Brian, Marchi, and James. Marais explores the origin of evidence-based decision-making from three aspects: Firstly, the rise of the British Labor Party in the late 1990s requires new forms of knowledge; secondly, the development of evidence-based medicine provides a reference for evidence-based policy; thirdly, in theory, the evidence-based method is closely related to the modernization agenda, and the evidence-based method is reasonable. (Z Marais L; Matebesi Z., 2013)

2.2 Analysis of "Evidence" in Evidence-Based Decision

As the center of evidence-based decision-making, scholars pay attention to the division of evidence sources, evidence characteristics, and evidence categories in the policy. In 1999, the Cabinet Office of the British government elaborated on evidence used in public policy. Davies summarized the data characteristics as evidence in different areas of public policy and listed the evidence characteristics for different policy areas. They summarized the methodological preferences and problems in the field of school education policy: "A large number of studies are considered to lack a solid foundation, multiple methods compete with each other rather than supplement, use large sample data for analysis, and few experiments." The characteristics of school education policy data are that the research groups are relatively scattered, there is no reliable research evidence database, and there is less systematic evalua-

tion. From the type and form of evidence, Zhang Zhengyan divides the kinds of pieces of evidence into evidence available and fresh evidence, and the form of evidence includes evidence saturation and evidence insufficiency. U. S. Department of Education divides evidence involved in the field of education into six levels. According to this classification, the better source of evidence is "research based on science." (Annelte Boaz, Debarth Asdhby, 2012) Chen Shuangye subdivided evidence into result evidence, executive evidence, descriptive evidence, analytical evidence, critical evidence, ethical evidence, digital evidence, and literal evidence. (Chen Shuangye; Meng Liujin, 2014)

2.3 Conditions and Principles of Evidence—Based Decision

Wang Zhe thinks that the necessary condition of evidence—based decision—making is, on the one hand, the accumulation and development of a lot of knowledge. On the other hand, the government should become a learning government. Guo Weiqing believes that evidence—based decision—making is different from the tool of knowledge—based decision—making. Evidence—based decision—making requires the government to become a research—oriented government. He also pointed out two basic principles and four evidence—based decision—making requirements; one is that decision—making is based on evidence; the other is that public policy and social science knowledge are allied. Four requirements; 1. Confidence platform; 2. Policy network; 3. Expert participation; 4. Policy learning. (Guo Weiqing, 2003)

3. The Practice and Application of Evidence—based Decision—making in Independent Evaluation and Appointment of University Teachers' titles

3.1 Introducing new Methods to Improve the Effect of Evaluation and Employment

The application of evidence—based practice to the evaluation and appointment of teachers' professional titles provides more scientific methodological guidance for the development and goal realization of teachers' professional title evaluation. (Wang Zhe, 2009) The traditional decision—making practice is

important and necessary in the process of the evaluation and appointment of teachers' professional titles. However, these theories and research methods are more inclined to the background environment than the methods that can be applied and have direct and considerable effects. Evidence—based decision—making provides evidence support for the standardization of teachers' professional title evaluation and appointment. Accumulating and revising the evidence and strictly based on different levels of evidence to carry out the practice of professional title evaluation and the appointment can avoid the experimental design of teachers caused by the theoretical preference and knowledge structure solidification of the research, and adopt more scientific and objective measures, which can help to achieve fair and reasonable evaluation and appointment of teachers' professional titles. The practice standard based on evidence can avoid the great change of evaluation concept and routinely caused by the replacement of decision—makers to the greatest extent, prevent the unfairness and loss of administrative cost, and control the evaluation effect within a specific range. The practice standard based on evidence can prevent the great change of evaluation concept and routinely caused by the replacement of decision—makers to the greatest extent, prevent the unfairness and loss of administrative cost, and control the evaluation effect within a specific range.

3.2 Pay Attention to the Focusing Process of Evidence Collection

The evaluation of teachers' titles involves many interest relations, and the evidence required is broad and extensive in quantity. It can collect multi—dimensional, high—quality, and rich data by using big data. The school establishes effective evidence access channels through network and media and realizes data collection, storage, processing, analysis, and visualization by using data mining, data analysis, and visualization technology. After collecting the original data, it is necessary to filter, sort out and summarize the initial research, and then simplify and integrate the summarized evidence to prepare for the next analysis. Professor Brian Haynes, a Canadian medical informatics expert, outlined the e-

volution process of evidence—based medical information service mode with 5S (Figure 1). “5S” refers to “studies” (Original Research), syntheses (Systematic Review), synopsis (Summary of Evidence), summary (Comprehensive Evidence), and system (Evidence System). Studies are the basis of all other evidence derivatives, and systems provide evidence. The highest form of evidence resources, therefore, is based on the original research, with the evidence system as the terminal, forming a continually shrinking evidence resource pyramid from bottom to top. At this time, the review evidence becomes the most condensed and concise form.

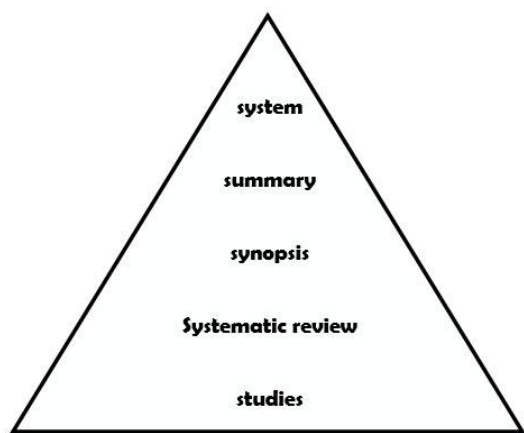


Figure 1: 5S System of Evidence Provision Pattern Evolution

3.3 Processing data in a scientific way

At present, the main methods of processing and analyzing evidence are systematic evaluation, meta—analysis, narrative review, and realistic, comprehensive analysis. These methods were first used in evidence—based medicine (evidence—based medicine), and now they have been transplanted to many areas, such as justice, transportation, education, and so on. 1. System evaluation. System evaluation is a strict method of evaluating documents. Given a specific problem, all published or unpublished research results and documents are collected systematically and comprehensively, even the earliest evidence. The first time that the hierarchical professional title management of teachers was issued in 1950. The literature which meets specific quality standards is selected, and qualitative analysis or quantitative synthesis is carried out to obtain a reliable conclusion. 2. Meta—analysis, using the statis-

tical principle and method to compare and synthesize the research results and documents obtained in the same problem of Title Evaluation and employment, combine multiple studies, and calculate the overall effect quantitatively. 3. Narrative comments. In the process of system evaluation, some studies can not be summarized quantitatively, and the relevant information, data, and data of evidence can be qualitatively and comprehensively commented. Finally, the characteristics and results of the title evaluation are discussed. Typical narrative comments need to collect relevant research information, such as the basic situation, objectives, and contents of teachers’ evaluation and employment, whether the evaluation has the promotion role, whether the teachers with relevant interests participate in the evaluation and employment plan, the research methods adopted, the measurement methods adopted, the summary of important results and the grade of evidence. 4. The comprehensive analysis method of realism emphasizes "Under what circumstances and to whom and what measures are effective."

3.4 Building a Bridge Between Research and Practice

The original data will not automatically form evidence, that is, the data and information will not be converted into evidence by themselves but can be genuinely used by decision—makers only after sufficient analysis, summary, and effective dissemination. The study and summary of a large amount of information is a complicated and tedious process. School management department must obtain effective evidence as quickly and directly as possible with researchers’ help. Researchers can get more scientific and reasonable evidence by applying science and technology and analysis methods to sort out the interaction and causal relationship between things. Therefore, cooperation between the government and researchers is inevitable. The bridge between research and government should be established. For example, the personnel department of the school should include evidence conversion talents or cultivate some internal personnel to understand the evaluation process and the problems to be solved by the review; the corresponding research and evidence

collection meeting should be organized, so that the researchers can inform not only the decision-makers of the obtained evidence but also get the necessary evidence. With evidence-based decision-making, the results or evidence of social research, real situation, data, knowledge, values, skills, experience, and personal intuition of decision-makers and practitioners are integrated to promote policy-making from "beating the head" to taking the best evidence as the core decision-making mode. In this way, the practice results can reach the initial decision-making period. Look at the target.

3.5 Building a Quaternity System

Traditional policy decision-making is often made by applying peer experience or relying on personal experience or even personal intuition. Especially when the professional title assessment is handed down to the school, it is easy to make the decision by "beating the head," following the tradition, and copying other schools. In the traditional policy decision-making model, decision-makers and practitioners are independent of each other. The decision-maker controls the decision-making process, and the executor seldom participates in the decision-making process, while the decision-maker does not pay attention to it. This kind of one-way linear

decision chain often leads to a severe deviation between the implementation effect and the initial expectation of the decision in the process of implementation. A decision-making system composed of policymakers, executors, researchers, and recipients is developed. The decision maker is not only responsible for policy decision-making but also supervises the whole process of decision-making. The executor not only implements decisions but also participates in the decision-making process, providing effective information for the decision-maker. The researcher combs out the mutual influence and causal relationship between things through the application of science and technology and analysis methods to obtain more scientific and reasonable evidence. The receiver is not merely the affected person who considers teaching teachers' characteristics, feelings, and needs, respects teachers' wishes and values, lets teachers participate in the decision-making process, and influences policymaking and its implementation. Such a quaternity system can not only make the policy more scientific and reasonable, but also promote the decision-makers and practitioners to improve their professional quality and ability to ensure the smooth implementation of the policy and achieve the expected goals.

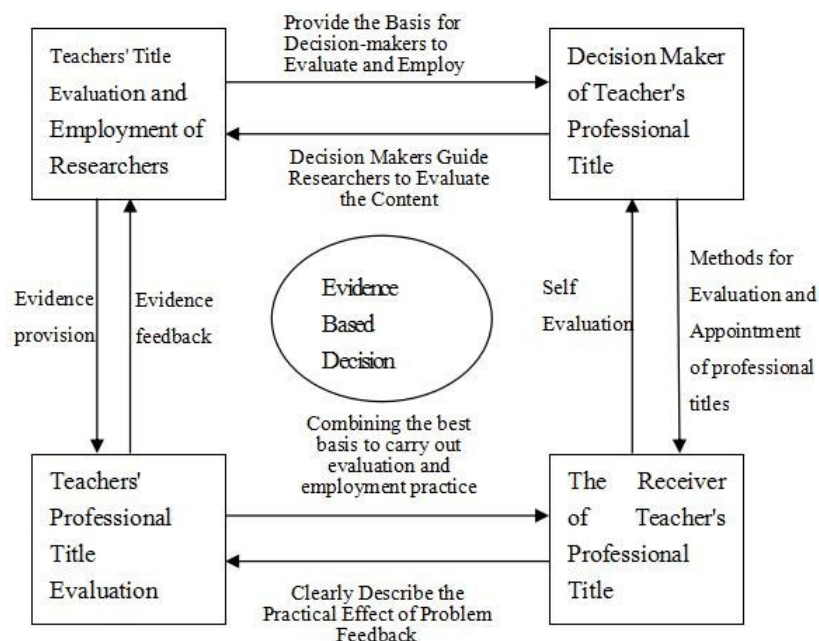


Figure 2: The Mechanism of Evidence-based Decision-making

In short, under the framework of evidence-based decision-making, the independent evalua-

tion and appointment of teachers' titles are actually to work out a scheme to solve the problems of

teachers' evaluation and appointment in practice through the use of scientific evidence, to improve the effectiveness of school management. After a strict evaluation of the collected pieces of evidence, we can select the best evidence that is true, reliable, and has application value. At the same time, we can guide the decision-making of professional title evaluation and appointment according to the characteristics, values, and era environment of colleges and universities.

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