

# Analysis and Reflection on Undergraduate Teaching Quality Reports: Comparative Analysis Based on the University of California's Annual Accountability Report Series

Sheng Rui<sup>1</sup>, Lan Hai<sup>2\*</sup>

<sup>1</sup>*School of Marxism, Wuhan Institute of Technology, Wuhan, Hubei, China*

<sup>2</sup>*Development Planning and Discipline Construction Division, Wuhan Institute of Technology, Wuhan, Hubei, China.*

*\*Corresponding Author.*

**Abstract:** The purpose of this study is to enhance the structure and substance of undergraduate teaching quality reports by drawing insights from a comparative analysis with the University of California's annual accountability reports. Through literature review and comparative analysis, the study examines the strengths and weaknesses of current reporting practices. Key findings reveal gaps in the indicator framework, depth of content, presentation of social services, and lack of forward-looking plans in existing reports. Drawing from these observations, the study offers targeted recommendations to inform the refinement of undergraduate teaching quality reports.

**Keywords:** Teaching Quality Report; University of California; Comparative Study; Information Disclosure

## 1. Introduction

"The quality of school operation is a reflection of the quality of education and teaching in the school".[1] In July 2011, a notice was issued to require that the universities of the "Project 985" firstly publish the 2010 Undergraduate Teaching Quality Report. Each "Project 985" university is required to conduct research and study according to the actual situation of the university, and prepare the corresponding Undergraduate Teaching Quality Report. The content of the report will be centered on the undergraduate teaching work of the university, and finally submitted to the Ministry of Education and made public on the official website of the university. Based on the release of the 2010 Undergraduate Teaching Quality Report of the 39 "Project 985" colleges and universities, the "Project 211" colleges and universities were further required to

compile and release the 2011 Undergraduate Teaching Quality Report. Subsequently, in the Basic Requirements for the 2012 Undergraduate Teaching Quality Report of Universities and Colleges, the Ministry of Education (MOE) further strengthened the requirements for the preparation of the report and made specific provisions for the content of the report. The Ministry of Education clearly pointed out that the report must be supported by 25 items of basic data, and at the same time fully reflect the contents of the seven aspects. So far, the system of disclosing undergraduate teaching quality information in colleges and universities has been extended to colleges and universities all over the country.

The University of California is one of the world's leading universities, and its teaching and research levels are recognized worldwide. Taking the University of California Accountability Series reports as an example, it can learn how to effectively collect, analyze and present relevant data on undergraduate education, so as to improve the credibility and feasibility of undergraduate quality reports, and learn from its experience in education quality and management. To understand their experience and best practice in subject setting, teaching methods, scientific research management and student support in order to improve the educational level and international reputation of domestic universities, so as to provide useful references for the reform and development of domestic universities. Therefore, this paper will take the "University of California Annual Accountability Report" as an example to compare with the Undergraduate Teaching Quality Report of Chinese universities. Based on this, the study will explore the problems existing in the report of undergraduate education quality and absorb the useful

experience of the annual accountability report of the University of California, so as to provide the direction for improving the content of the report.

## 2. Indicators and Contents of the Annual Accountability Series Report of the University of California

In order to respond to public accountability and enhance the school's competitiveness and social influence, the University of California has issued an annual accountability report since 2009. Uc's annual Accountability report series consists of three parts: The first part is an executive summary, which is an overall analysis of the report; The second part is the comparison between university indicators and campus, mainly using quantitative data and visual tables to show the situation of UC undergraduates, graduate students, faculty and other academic staff, schools, scientific research, public services, health sciences and medicine, financial performance, awards and honors; The third part is the appendix, which mainly explains the terms and data sources in the report. The indicator system of the accountability report of the University of California is slightly adjusted every year, but there is no great change overall. It is generally divided into 13 first-level indicators, second-level indicators and third-level indicators. The main indicator system of the accountability report series of the University of California is shown in Table 1.

**Table 1. Indicator System for the UC Annual Accountability Series Report**

No.	Primary indicators	Secondary indicators
1	Undergraduate	Application and acceptance of new undergraduate students each year; basic information of new students (family background, place of origin, high school grades, etc.)
2	Enrollment and Admissions	Financial costs to be borne by students of different family incomes; students' income and income distribution; students' debts
3	Undergraduate Affordability	Undergraduate graduation rates; first-year student retention rates; degrees awarded; post-graduation salaries

4	Undergraduate Graduation and Employment	Graduate student recruitment and enrollment; graduate debt and stipends for graduate students; graduate student scholarship and degrees awarded
5	Academic and Professional Graduate Students	Number, ethnicity, gender of academic workforce; academic recruitment and retention
6	Faculty and other academic Staff	Number, ethnicity, gender of employees; remuneration; separation from service
7	Diversity of the School	Diversity of undergraduate and graduate students, faculty, and staff in terms of gender and ethnicity; campus climate response
8	Teaching and Learning	Undergraduate student learning and engagement (self-reported skill levels, research projects and dissertations, satisfaction with student academic experience); doctoral student learning self-reported skill levels; faculty conditions
9	Research	Research expenditures; research impact
10	Public Service	Agriculture and natural resources; natural reserve systems; educational partnerships; social and economic impacts
11	Health Sciences and Medical Services	Health Science Students and Recognition; Health Science Student Debt in Medically Underserved Areas and Populations; Patient Care; Teaching Expenditures
12	Financial Performance	Financial situation; capital projects; sustainability analysis
13	Awards and Honors	Faculty Awards; Faculty Access Index; Social Mobility; University Rankings

Source: University of California 2016-2022 Accountability Series Report

As evidenced in the recent UC Accountability Series, the state and the University of California promote each other, while the University of California continues to help California residents

achieve a better future. In response to the rapidly growing number of college students in the 1950s, the state of California partnered with the University of California to open five new campuses in northern and southern California, allowing UC enrollment to nearly quadruple over the next 60 years. The University of California trains most of the state's STEM (science, technology, engineering, and math) professionals and half of California's medical students, while also managing three national energy laboratories and operating the state's fourth-largest health center. This article will explain the contents of the UC report from the aspects of undergraduate education, graduate education, scientific research, and public service reflected in the accountability report.

### **2.1 Undergraduate education: a central force for improving the quality of education and fostering all-round development of human resources**

One of the University of California's top priorities is to ensure that a UC education is available to all California residents who meet its admission criteria. During their time on campus, undergraduates have many opportunities to engage with cutting-edge scholars in a variety of fields, with more than 40 percent of upperclassmen joining in teaching and research, and 80 percent of upperclassmen completing a research project or presenting a paper through their regular assignments. In addition, the University of California is using a variety of practical pedagogical tools to help students in STEM programs. The University is actively exploring ways to shorten the time to graduation through pre-requisite courses and credit exams, provided that passing standards and learning outcomes are met. For the third consecutive year, U.S. News & World Report has recognized UC Riverside as the nation's top university for social mobility. A UC education promotes socioeconomic class mobility, with the majority of students who earn a UC degree earning more than their parents five years after graduation.

### **2.2 Postgraduate Education: Fostering High-level Talents and the Backbone of Scientific Research and Innovation**

According to the UC Annual Accountability Report 2022, UC's graduate enrollment in 2021 is 21%. Looking back over the past 20 years, the UC's graduate student percentage has remained

around 20 percent, largely unchanged.[2] The accountability report shows that the UC is focusing more on quality students in graduate enrollment, analyzing specific situations, and helping graduate students to more appropriately address the problems they encounter in their studies. At the same time, the University of California has adopted a multi-form, multi-channel approach to raising funds for graduate student support, mobilizing all sectors of society to invest in education, and creating basic conditions for graduate students to complete their studies [3].

### **2.3 Scientific Research: an Important Force for Pioneering Future Results in Cutting-edge Science and Technology and Applications**

As a leading education and research institution, the University of California has doubled its research funding to \$5.5 billion over the past 15 years, with the vast majority of that investment coming from outside the state. UC not only receives one-tenth of the U.S. National Research and Development Fund, but also receives the most funds from the National Institutes of Health and the National Science Foundation. Investing in UC has brought significant economic and social benefits to the state and the public, and the commercialization of UC's scientific research results has created additional jobs and contributed to the state's economic development. The University of California encourages cooperation and exchanges between disciplines, actively seeks research funding and continues to invest in state-of-the-art research facilities to provide opportunities for researchers in different fields to communicate and collaborate, to promote innovative scientific research, to facilitate the exchange of knowledge and mutual inspiration between disciplines, and to provide strong support for scientific research.

### **2.4 Public Service: a Key Force for Enhancing Social Responsibility and Promoting Social Progress**

The UC Annual Accountability Series report quantifies its contributions to public service in terms of data. In terms of public service, UC plays a vital role in health care and agriculture. Agriculture is one of the mainstays of California state government, and the UC Department of Agriculture and Natural Resources utilizes research from the Agricultural Experiment Station to reach out and serve the public in the

state's 58 counties and cities. Innovations in science and technology, as well as research on climate change, drought, pests, and other challenges, have ensured California's stable agricultural output. UC research is the foundation for California's ability to produce food that not only meets the needs of the state's population, but also feeds the rest of the U.S. and the rest of the world. In addition, UC is the state's think tank for research that addresses critical challenges facing California and the world: UC is working to end global hunger, is proposing an affordable, high-quality health care model, and is working to find new solutions to complex environmental problems.

### 3. Indicator Content of Undergraduate Teaching Quality Report and its Problems

#### 3.1 Indicators and Contents of Undergraduate Teaching Quality Report

According to the comprehensive reference of the latest Undergraduate Teaching Quality Report published by Tsinghua University, Peking University, Fudan University, Shandong University, Zhengzhou University, Qingdao University, Central South University, Wuhan University and other universities, it is found that the Undergraduate Teaching Quality Report of universities can be divided into eight parts, covering the following contents: The basic situation of undergraduate education, teaching staff and teaching conditions, teaching construction and reform, quality assurance system, student development support, characteristic development, existing problems and improvement measures, and appendix information. There may be some variation from school to school in the preparation of the report, but the main primary and secondary indicators are shown in Table 2.

**Table 2. Indicator System of Undergraduate Teaching Quality Report in Colleges and Universities**

No.	Primary indicators	Secondary indicators
1	Basic Information of Undergraduate Education	Cultivation Objectives; Specialty Setting; Student Size; Student Quality
2	Faculty and Teaching Conditions	Teaching Staff; Teaching Funding; Facilities and Environment

3	Teaching Construction and Reform	Professional development; curriculum development; teaching materials development; practical teaching; graduation thesis and graduation design; innovation and entrepreneurship education; international training
4	Quality Assurance System	Construction of teaching quality assurance system; quality monitoring and operation; professional assessment and professional accreditation
6	Characteristic Development	Colleges and Universities Featured
7	Problems	Reflecting on school problems and directions and measures for improvement

Source: Undergraduate Teaching Quality Report of Fudan University, Shandong University, Zhengzhou University, Qingdao University, Central South University and many other universities for the academic year 2019-2022

The Undergraduate Teaching Quality Report submitted by universities usually contains a series of data indicators, which are arranged at the end of the report as an appendix, covering multiple key aspects. These data indicators can comprehensively reflect the quality of undergraduate education in universities and colleges, and can be used to measure and evaluate the quality of undergraduate education in universities and colleges, and provide important reference for colleges and universities to improve teaching. To help relevant departments and the public better understand the teaching quality of universities.

#### 3.2 Problems in the Quality Reporting of Undergraduate Teaching in Colleges and Universities

The system of issuing Undergraduate Teaching Quality Report has experienced nearly ten years of development and achieved some results, but there are still some problems. In addition to the fact that some schools have not implemented the policy requirements of disclosing the Undergraduate Teaching Quality Report, and there are problems that the relevant documents cannot be obtained from the official website, the following problems still exist in terms of the

situation of the Undergraduate Teaching Quality Report of colleges and universities that has been disclosed.

### 3.2.1 The Evaluation System is not Sound Enough

In contrast, it is obvious that the indicators of Undergraduate Teaching Quality Report are generally too few, and the first-level indicators are more general, the second-level indicators are not detailed enough, and the overall evaluation system is not sound. It is worthy of affirmation that the sixth part of the Undergraduate Teaching Quality Report introduces the characteristic development of each university, and the seventh part reflects on the existing problems and measures for future improvement. However, it is still worth discussing whether more detailed and agreed indicators should be formulated in other basic parts. In addition, the main object of the content of the report is the situation of undergraduate teaching, and there is no graduate education, and the University of California's accountability series reports include graduate education. Graduate education is an important indicator to measure the level of running a university and teaching level, especially the universities with master's and doctoral programs, but also the concern of the society, so it is suggested that the teaching quality report should not be limited to undergraduate education, but should be changed to University teaching quality Report, covering undergraduate and graduate education. There are also many secondary and tertiary indicators in the accountability series report of the University of California, such as the financial affordability of students and the salary of staff, which can openly and transparently understand the economic and financial situation of the school, and the specific situation of students' graduation and employment also fully reflect the quality of education, not only the graduation rate and employment rate.

### 3.2.2 The Content of the Report is Relatively Simple

From the overall content of the report, a lot of basic information is already publicly available on the website, and the changes and focuses from year to year are not prominent enough. The four major functions of universities are talent training, scientific research, social service and cultural inheritance and innovation. Compared with the series reports of the University of California,[4] data information on the university

scientific research and social services in the Undergraduate Teaching Quality Report Some schools only disclose the number of published papers, and the level of papers and projects and achievements in competition activities are not mentioned, and the transformation and commercialization of scientific research results are rarely mentioned. The report is mainly based on text introduction, with relatively few data and insufficient in-depth analysis of data. For example, most of the employment rates are above 90%, and there is no explanation of employment destination, employment quality and subsequent employment tracking, which does not reflect the real strength of colleges and universities. As for the existing problems, only some common problems are mentioned, such as unreasonable teacher team structure, insufficient practice and teaching conditions, unreasonable professional Settings, quality control and guarantee system has not been implemented, and insufficient teaching funds, but the solution measures are not specific and do not really reflect the personality problems existing in each school. Compared with the accountability reports of the University of California, the Undergraduate Teaching Quality Report of the university is relatively brief in content and details, and it seems that the importance of disclosing the Undergraduate Teaching Quality Report to the public is not fully recognized.

### 3.2.3 Lack of Social Services

Through the University of California's annual Accountability series, it can see that the University of California attaches great importance to public service, and has played an important role and achieved a wealth of experience and results in agriculture and natural resources, educational partnerships, health systems, and social and economic impact. In contrast, the social services of colleges and universities are already relatively poor, and this is not reflected in the report. The combination of production, learning and research in colleges and universities has been poor, and the connection with society and enterprises is not close enough. Most of the time, universities think that enterprises are too mercenary and lack of idealism. Enterprises, on the other hand, view universities as ivory towers, too bureaucratic to provide useful help. The existence of this stereotype and the lack of communication between the two sides have greatly affected the realization of the achievements of universities in

social services.

### 3.2.4 Lack of Clarity in Future Planning

The University of California Accountability series reports not only assessed the current situation of the school, but also made corresponding predictions and plans for the future situation of the school and the development of students. This kind of forward-looking planning helps the school to play a key role in stimulating school vitality, improving management efficiency, leading the way and building value consensus. However, in the Undergraduate Teaching Quality Report, more emphasis is placed on the existing problems and improvement measures, and there is a lack of forward-looking thinking on the future development of the school. School planning plays an important role in predicting future trends, formulating strategic goals, optimizing resource allocation and improving overall competitiveness. Therefore, adding more forward-looking strategic planning to the Undergraduate Teaching Quality Report will help drive the overall development of the school and better adapt to the challenges and opportunities of the future education environment. Although some colleges and universities have fully realized the importance of planning, they still have no clue about what kind of planning is good. In addition, there are also some schools ambitious, blindly to the elite schools. There are also some schools with too broad goals, which do not reflect the key tasks of a particular school at a specific stage of development, or even copy the plans of other schools, resulting in the content of the planning is quite vague, and it is difficult to take into account the overall situation when it is implemented.

## 4. Conclusion

In view of the problems existing in the Undergraduate Teaching Quality Report of the above universities, this study can improve and enrich the Undergraduate Teaching Quality Report from many aspects on the basis of the experience of the annual accountability report series of the University of California.

### 4.1 Broadening Data Collection Channels to Improve Accountability Efficiency

The diversity of data sources and the authenticity of data play a crucial role in the accountability efficiency of colleges and

universities. Most of the data and information cited in UC's annual accountability reports are the real feedback obtained from the investigations and studies of universities, governments and third-party organizations, so the conclusions of the accountability reports are authoritative and realistic. Compared with the University of California, universities have a single channel to obtain data, so they should strengthen the communication with the government and third-party organizations to broaden the channels of information collection. At the same time, relevant government departments should strengthen supervision, supervise colleges and universities to improve the authenticity and transparency of relevant data, and build a platform for the public to understand the data and colleges and universities to obtain data. In addition, the undergraduate teaching quality report should also pay more attention to the elements of "accountability", find and summarize problems from multiple dimensions, and make continuous improvement by solving and preventing problems, so as to better promote the development of the school according to its own development advantages, shortcomings, opportunities and challenges.

### 4.2 Establishment of a Vertical and Horizontal Multi-dimensional Evaluation System and Improvement of the Evaluation Mechanism

The University of California has a diversified evaluation system. In addition to the real evaluation of students, there are also evaluations of universities of the same level and some authoritative university rankings. At the same time, the development of the University of California is analyzed and evaluated by comparing with the initial data of the University of California. When establishing the evaluation system, colleges and universities should make horizontal comparison not only with the universities at the same level, but also with their own historical data, and find the key problems from the horizontal and vertical comparison of teaching quality reports, and correct and solve the implementation. From the perspective of the main body of college quality assessment, although third-party institutions are encouraged to participate in educational assessment.[5] Universities should establish a self-evaluation system for undergraduate teaching. Based on this system, a diversified evaluation system of

government and social departments is established. By extensively absorbing the participation of stakeholders of higher education, the scope of influence of educational evaluation is gradually expanded, and its recognition and influence in society are enhanced, so that it can become an important basis for government decision-making, and then truly become a bridge between universities and society, creating favorable conditions and environment for colleges and universities to run schools.

### **4.3 Improve the Index System of College Teaching Quality Evaluation to Enhance the Information and Credibility**

The University of California's annual accountability reporting indicator system will be slightly adjusted, but the overall change will be little. Accountability reports from 2016 to 2022 generally include 13 tier 1 indicators, which are broad and in-depth. Compared with the evaluation index system of the accountability report of the University of California, colleges and universities should improve the evaluation index system of college teaching quality, improve and perfect on the basis of the current evaluation system, add some new indicators of social concern, such as graduate education, social service, financial performance, etc., and all indicators reflecting the running of colleges and universities should be disclosed to the public. Universities need to compare teaching quality reports horizontally and vertically to find key problems and address them. It is necessary to deal with the relationship between unity and flexibility, that is, to formulate a unified compilation standard, standardize the content of the teaching quality report to maintain consistency and comparability, and at the same time, under the premise of meeting the unity, fully and objectively explain the focus, characteristics, problems and future ideas of the education and teaching work of colleges and universities, so that the society can truly understand the actual situation of the university.

### **4.4 Pay Attention to the Disclosure of Teaching Quality Information to Ensure that the Content of the Report is True and Reliable**

The quality report of colleges and universities should be objective and comprehensive, including the honest reflection of the shortcomings and problems in education and

teaching. However, in the quality reports that have been made public, it is difficult to see that colleges and universities take the initiative to publicize the information that has real problems. Even if some university reports mention problems, there are only one or two, because the information is not comprehensive, so its effect is greatly reduced.[6] All universities should fully realize the importance of disclosing teaching quality information to the society, carefully prepare annual teaching quality reports, and conduct in-depth analysis with the latest and real data. To reflect the annual changes in an objective and fair manner, show the quality of the university, respond to social concerns, and submit a high-quality teaching quality report. Educational administrative departments should improve the transparency of the data on the teaching operation status of colleges and universities, standardize the inspection and supervision of the release of the teaching quality report of colleges and universities,[7] open up a wider and more objective channel of information on teaching in colleges and universities for the public, and set up a more open data and information platform for colleges and universities to consider their teaching performance.

### **Acknowledgments**

This paper is supported by Hubei Province Education Science Planning Key project "General Education Curriculum Ideological and political teaching evaluation System" (2023GA044).

### **References**

- [1] HE S K. Analysis of influencing factors of school running quality and improvement countermeasures. *Journal of Chongqing Jiao tong University (Social Science Edition)*,2003(S1):7-8.
- [2] YU P. A New Approach for public universities to respond to social accountability: An analysis based on the 2014 Accountability Report of University of California. *Exploration of Higher Education*,2015(09):32-37.
- [3] XIONG H J, Ding Y. The graduate education model of the University of California, Berkeley and its enlightenment. *Graduate Education Research*, 2011(02): 87-93.
- [4] KANG L. Research on Practical Issues of

- voluntary Social responsibility information Disclosure in colleges and universities. *Modern Education Management*, 2014(10): 52-55.
- [5] BAI Y X. Toward a "student-centered" assessment model: A comparison between China's Undergraduate Teaching Quality Report and American NSSE. *Chinese Higher Education Research*, 2014(11): 64-68.
- [6] ZOU X P. Quality of Undergraduate Teaching: How do universities Report?. *Exploration of Higher Education*, 2013(02): 79-83.
- [7] LIU Y. Undergraduate Teaching quality Report should be comprehensive and true. *Education and Career*, 2012(07): 22.