

# Study on the New Tread of Quality Assurance Development in International Higher Education

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**Abstract.** With the continuous development of higher education at home and abroad, the research on the quality assurance of international higher education presents many new research hotspots and trends. In this paper, scientometrics method is used to analyze the literature on the quality assurance of higher education in the Web of Science database using VOS Viewer software. Explore the new trends in research and development of international higher education quality assurance to provide reference for the construction of China's higher education quality assurance system.

## 1 Introduction

The quality assurance of higher education has become the main topic of higher education research in all countries. Quality assurance can be considered as one of the most important reform issues in global higher education<sup>[1]</sup>. Since the middle and late 1980s, some developed countries have paid great attention to the quality of higher education, and have focused their research on the construction of a nationwide quality assurance system for higher education<sup>[2]</sup>. Kranz and Steinkrauss discussed the options for the establishment of off-campus courses in the quality assurance of higher education for small institutions, and began to focus their research on education quality assurance<sup>[3]</sup>. Loder systematically discussed the quality assurance and accountability system of higher education and is committed to building a sound quality supervision and management mechanism for higher education<sup>[4]</sup>. In the 21st century, with the further development of higher education, new research directions have also emerged in the research on the quality assurance of international higher education. White analyzed the relationship between the use of new teaching methods and the quality of teaching based on the use of new scientific and technological means of learning and teaching in the UK<sup>[5]</sup>. Isabel found that research in the field of higher education quality assurance from 1996 to 2013 focused on four areas: assessment, quality, quality management, and student evaluation of teacher education<sup>[6]</sup>. But the study lacks analysis of relevant literature in recent years. This study is based on the results of Isabel Steinhardt et al. and explores new research directions and new directions in the field of international higher education quality assurance from 2010 to 2017.

## **Method**

### **Data collection**

This study uses the core collection of the Web of Science database as a data source and selects related articles published from 2010 to November 2017 using the search formulas. The selected language was English and the document type was Article. A total of 22,458 documents were retrieved. After refining the search, the discipline was defined as higher education, selected Education Educational Research and Education Scientific Disciplines, and 3421 articles were obtained.

### **Co-citation analysis**

Co-citations are two different documents cited simultaneously by other documents, and co-citation strength is the number of times the two documents were cited. Co-citation analysis is mainly used to analyze the citations of relevant literature already existing in a certain knowledge domain<sup>[7]</sup>. When they are cited at the same time, there is an intrinsic link between the two, and as the co-intensity increases, the internal connection strengthens. Co-citation analysis is based on this theory. By using multiple representative documents as analysis objects, using statistical analysis methods, the complex co-priming network relationships between documents are reduced to a small number of groups and expressed intuitively. This article aims to generalize the research status of the international higher education quality assurance and analyze the international research hotspots and new directions.

## **Results and Discussion**

Co-citation analysis is a core quantitative research method that reveals scientific relationships between documents through journal articles<sup>[8]</sup>. Co-citation maps were drawn using VOS Viewer software, and clustering of research topics. Through the analysis of the cited literature topics, the cited literature can be divided into five aspects: online education quality assurance research, evaluation model research, teaching quality research, student evaluation and feedback research, and multinational higher education quality assurance research(as shown in figure 1) .

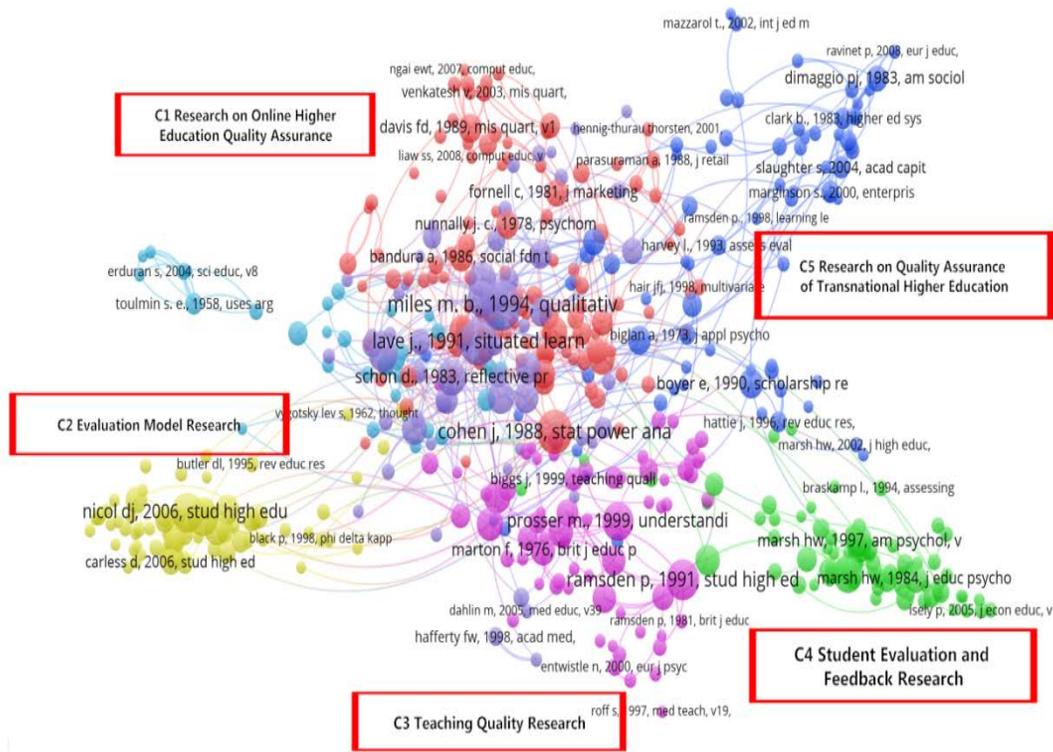


Fig.1 Co-citation analysis

### Research on Online Higher Education Quality Assurance Clustering

The Online Higher Education Quality Assurance Clustering is the largest among the five clusters. Not only include issues related to the quality of online education, but also discusses the impact of self-efficacy on learning quality in online learning. Online education is a new form of education that emerged in the information age. Online education and learning models in higher education are constantly evolving. The emergence of MOOCs, micro-curriculums, and distance education forms promote higher education improve quality. Can these non-traditional teaching models achieve the expected teaching results? How do college students adapt to online education? What are the new requirements of online education for teachers? All of these issues need the research based on the quality assurance of higher education to truly find a path for the integration of the Internet and higher education.

### Evaluation Model Research Clustering

In the 68 articles of the Evaluation Model Research, including studies on the performance indicators of higher education teaching quality, research on the relationship between teaching and learning, and measures to improve teaching quality. The article cited the highest number of times was “Formative assessment and self-regulated learning: a model and seven principles of good feedback practice”<sup>[9]</sup>. It was cited a total of 58 times, with 140 connections. The validity of the evaluation results of higher education quality assurance depends to a large extent on the evaluation method chosen and the assessment model adopted. Therefore, how to choose the evaluation indicators and how effective the indicators are is worthy of our in-depth

study.

### **Teaching Quality Research Clustering**

Among the 68 articles in the Clustering of Teaching Quality Research, there are studies on the performance indicators of higher education teaching, research on the relationship between teaching and learning, and measures to improve teaching quality. Teaching quality is the ultimate appeal of higher education quality, and topics of concern in the field of quality assurance in higher education. The highest cited in this cluster is Ramsden's article on formative evaluation and autonomous learning<sup>[10]</sup>. In the article, the indicators of higher education performance evaluation at the time were mainly focused on the investigation of scientific research output, and neglected the factors of teaching quality in colleges and universities.

### **Student Evaluation and Feedback Research Clustering**

By analyzing the articles of Student Evaluation and Feedback Research Clustering, it can be clearly seen that Marsh, Herbert W is the most active author in this cluster. Marsh, Herbert W's many articles centered on student assessments of university teaching, such as the validity of student assessments for teaching, the factors that influence students' assessment of the same course for the same teacher, and the assessment of students' teaching effectiveness.

### **Transnational Higher Education Quality Assurance Clustering**

Transnational Higher Education Quality Assurance Clustering is on the top of right of the map, consist of 72 articles. This cluster is strongly related to C1, C3, and C4 clustering, this shows that quality assurance of transnational higher education field has discussed the issues related to online education, teaching quality, and student evaluation and feedback. Marginson and Rhoades are based on the concepts of national, market, and higher education systems<sup>[11]</sup>. Referring to Clark's "triangular heuristic," he constructed a "gonadal agency heuristic" that points to three intersecting planes, emphasizing the equal importance of global, national and local forces for international comparative higher education research<sup>[12]</sup>. With the development of internationalization of higher education and increasingly widespread market competition, countries in the world are paying more and more attention to the quality of education.

## **Conclusions**

In the above empirical analysis, the current research on quality assurance of international higher education focuses on five aspects, in these five fields, there are topics that people have always paid attention to in the quality assurance of higher education, and there are also new methods and themes that have been proposed in recent years. After comprehensive analysis, the new dynamics of international higher education quality assurance are summarized into the following three aspects.

### **Research on Quality Assurance of Online Higher Education**

From the results of the co-citation analysis mentioned above, we can see that the quality assurance of online higher education is the largest cluster, and it is also a research hotspot in the field of international quality assurance. With the continuous development of online education, the quality of online education has increasingly attracted the attention of the academic community. Angela T. Ragusa learned through the thematic analysis of the 289

surveys that college students study and communicate in the virtual classroom that the widening gap between online distance education and traditional education will affect the quality of teaching<sup>[13]</sup>. Most of the students (53%) believe that although remote network education allows them to flexibly arrange their own learning time, the content of teaching is a single boring one compared to traditional education. Moreover, due to the lack of a unified evaluation standard for the quality of online education in all countries, although the global acceptance of e-learning is gradually increasing, multinational degree certification seems to be a problem that cannot be ignored in the face of online education. For the continuous development and continuous improvement of online education, the quality assurance of online education will maintain a high degree of attention in the field of international higher education quality assurance for a period of time.

### **Research on New Methods of Quality Assurance**

In the co-citation analysis we can find words such as "Evaluation of CAL systems", "Evaluation methodologies", and "Program evaluation". To a certain extent, scholars have paid great attention to empirical research methods in the field of international higher education quality assurance in recent years, such as multi-level models, on-site experiments, and large-scale surveys. Research methods are changing from simple questionnaires to professional quantitative analysis. There are studies that use field experiments to investigate whether the form of online survey affects the quality of student assessment<sup>[14]</sup>. There are also studies that use qualitative analysis, combined with Grounded Theory (GT) to conduct experimental hybrid research on data<sup>[15]</sup>. As a result, a large number of new research methods have emerged in the field of quality assurance in higher education. In the future, the requirements for the quality of higher education will be higher in all countries, so the research on the method of quality assurance of higher education will surely maintain a high degree of concern.

### **Research on Students' Participation in Higher Education Quality Evaluation**

Students as participants in the education process have more say in the quality assessment of higher education. In recent years, more research have studied in-depth the effectiveness of student participation in the evaluation of education quality. Berry O'Donovan looks at how the students' knowledge and understanding influence their satisfaction with teaching quality assessment and feedback. Is there a certain degree of correlation between the two<sup>[16]</sup>. Edgar Treischl and Tobias Wolbring believe that the quality of current student online evaluation teaching is worth paying attention<sup>[1]</sup>. They are based on three consecutive on-site experiments: split-half design, two-way curriculum, and before and after measurement to examine the effect of different survey models on student evaluation teaching. From this point of view, the participation of students in the field of quality assurance in higher education and the means of networking will be more closely integrated. Based on the results of co-citation analysis, the author believes that relevant research in the field of international higher education quality assurance will focus more on students' participation in education quality evaluation. It will also be combined with online education, online assessment methods, and various types of assessment models.

[1] Edgar Treischl & Tobias Wolbring. The Causal Effect of Survey Mode on Students' Evaluations of Teaching: Empirical Evidence from Three Field Experiments. *Research in Higher Education*, 5 (2017) 1-18.

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