

## The World University rankings and Higher Education Quality

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**Abstract:** The increasing demands of the labor market for certain qualifications to follow the rapid development during the 21st century require more efforts from the higher education leaders to draw attention to the quality education they provide. This paper provides an overview of ranking systems as global competition indicator among higher education institutions for an international position. It's aimed to find the relationship between quality in higher education and the world university ranking systems. The researcher used the descriptive approach to study the relationship between quality in higher education and the objective and performance indicators of the Academic Ranking of World University and the Times higher Education World Rankings, respectively. The study relied on the literature and references that dealt with the subject. It has been concluded that, three of the four central ideas of quality have been included in the objective and performance indicators of the Academic Ranking of World Universities and the Times Higher Education World rankings. As ranking systems become a standard feature in higher education systems, a certain high-quality level must be achieved in teaching, research and publication. Quality is very important as a basis for classification. So, maintaining quality in higher education institutes is the way for getting a position in the world university ranking.

**Keywords:** University rankings; higher education; quality

### Introduction

The competition among higher education institutions for students and funds has become highly significant. Higher education leaders should think about the quality of education they provide. Despite that there is no consensus on the definition of quality in higher education; quality should be put into consideration to get an international position. University rankings are having a profound effect on higher education institutions despite the great criticism on the definition and methodologies. They are being interpreted as measuring the international standing of an institution and are a good tool for universities to compare themselves and their kind in the country, at the regional level and in the world. This paper aimed to show the relationship between quality in higher education and the objective and performance indicators of the Academic Ranking of World Universities and the Times Higher Education World rankings.

### Objectives:

1. To provide an overview of university world ranking and its importance in classifying higher education institutes.

2. To demonstrate the concept of quality and its four central ideas.
3. To find the relationship between the concept of quality in higher education and the objective and performance indicators of the Academic Ranking of World Universities and the Times Higher Education World rankings.

### **Research problem**

This paper attempts to answer the following questions:

- 1- What is the concept of quality in higher education?
- 2- Do international ranking systems reflect the quality of higher education?
- 3- Is there a relationship between the concept of quality in higher education and the objective indicators of the Academic Ranking of World Universities?
- 4- Is there a relationship between the concept of quality in higher education and the performance indicators of the Times higher Education World rankings?

### **A new era in higher education**

This new era is characterized by global competition. The increasing demands of the labor market for certain qualifications to follow the rapid development during the 21st century require more efforts from the higher education leaders to draw attention to the quality education. So more students will choose their institutes for better job opportunities. Higher education leaders should consider the need for change in teaching, research and management to fit the need for qualified people in labor market and life in general. Students, businesses and governments are requesting educational institutes to increase their technological infrastructure for teaching and research (Slaughter, 1990), and the rapidity of change in both student population and information production heightens this need for change in higher education (Stewart, 1997). Growth in supply and demand of higher education has increased the demand for information about the higher education service and this case has enabled to develop university ranking systems or league tables in many countries of the world (Dill and Soo, 2005). Universities are competing in order to be better placed in ranking systems published journals (Grewal et al., 2008). Therefore, universities are facing more and more challenges to get a global or international position. To be one of the best universities nationally at first and then internationally, a certain high-quality level must be achieved. Setting global indicators to compare and rank universities around the world do not reflect the real performance of these universities because universities differ in their philosophy, goals and programs which are affected more or less by culture, social customs and beliefs. The race towards being globally ranked requires certain requirements which are not available or not easily acquired by many universities around the world. Ranking systems themselves had great

criticism. The methods used in ranking systems are a great difference with each other, as well as the number and nature of indicators employed (Enserik, 2007). Also, ranking systems need specific definition and quality criteria for evaluating the performance of a university (Lukman et al., 2010). On the other hand, the complexity and diversified viewpoint of higher education have always been a hot debate topic among educators, managers and policy-makers (Wu et al., 2012). University leaders should focus on the role of the universities towards the local community and the quality of education provided, so as to be more preferred by local students as a good choice for job opportunities. This will enable these universities to get a high position in the national ranking systems at first. Then to improve and maintain quality, university leaders should get strong relations with high prestige institutions to prepare themselves to compete internationally. Despite the world university lacking “validity, rigor, or meaning of value” (Boulton, 2010, p. 5), universities are not only “tempted” to improve their performance specifically to meet ranker’s requirements (Rauhvargers, 2011, p. 15) but are now driven to do so by state authorities. Moreover, the practice of ranking universities causes many leaders, academic managers, shareholders and parents, among others, to question mission, purpose, results, differences among universities and, the best ways of measuring the success of their higher education systems (Hazelkorn, 2011).

**The impact of English language on university ranking**

The European University Association (EUA, 2013) reports that nearly all the 32 international rankings systems emphasize faculty research productivity, publication impact and citation rates (Rauhvargers, 2013; Gonzales & Nunez, 2014). The EUA explained that favor is very typically given to English language research publications because: “..... publications in languages other than English are read by fewer researchers than those in English from the same universities..... The result is that the non- English- language output of these universities has lower citation impact and thus a lower position in the ranking” (p. 19). Kaba (2012) explained, faculty in European universities may be more likely to publish in English, and their institutions may encourage them to do so as well in order to move up in the rankings. Lo’s (2011) found that the vast majority of the highest ranked institutions in 2009 Times Higher Education-QS (THES) were geographically concentrated in the West, where the United States has 54 universities and the United Kingdom had 29 universities in the rankings. It is still the case in the ranking results in the years 2011 to 2017 (Tables 1, 2).

**Table 1: Number of western universities in the Times Higher Education Rankings (THES) from 2011- 2017.**

Year	United States	United Kingdom	Canada	France	Germany	Filtered from
2011	72	29	9	4	14	200
2012	113	52	18	8	22	402

Year	United States	United Kingdom	Canada	France	Germany	Filtered from
2013	111	48	19	12	30	400
2014	109	49	19	11	26	400
2015	108	45	18	11	28	401
2016	147	78	25	27	37	800
2017	148	91	26	29	41	981

Table 2: Number of western universities in the Academic Ranking of World Universities (ARWU) from 2011- 2016.

Year	United States	United Kingdom	Canada	France	Germany	Filtered from
2011	151	37	22	21	39	500
2012	150	38	22	20	37	500
2013	149	37	23	20	38	500
2014	146	38	21	21	39	500
2015	146	37	20	22	39	500
2016	137	37	19	22	38	500

### The ranking systems

The ranking systems were originally created over 20 years ago by Bob Morse at the US News and World Report in order to meet a perceived market need for more transparent, comparative data about educational institutions. University rankings or “league tables,” a novelty as recently as 15 years ago, are today a standard feature in most countries with large higher education systems (Usher and Savino, 2006). Up until the 60s, the process of internationalization of the education sector was marked by the formalization of cooperation agreements between governments and universities in different countries. These collaborations weakened in the 1990s and a more competitive political character began to strengthen among countries with a recognizable academic tradition (Slaughter & Leslie, 1997, 2001; Knight, 2008; Hazelkorn, 2011; Vieira & Lima, 2015). Global institutional ranking systems are a new variation on the older idea of national rankings. There are at present only two of these: The Academic Ranking of World Universities from Shanghai’s Jiao Tong University, first released in 2003, and the World University Rankings from the Times Higher Education Supplement of Britain (henceforth THES), first released in November 2004. The first international ranking—

albeit not a global one—was actually done by Asiaweek in 1997, which ranked the continent’s major universities (Usher and Savino, 2006, p. 6).

### **The International ranking systems**

#### **1- The Academic Ranking of World Universities (ARWU)**

The academic ranking of world universities (ARWU) was first published in June 2003 by the Center of World- Class Universities (CWCU) Graduate School of Education (formerly the Institute of Higher Education) of Shanghai Jiao Tong University, China. AWUR uses six objective indicators to rank world universities (Table 3), including the number of alumni and staff winning Nobel Prizes and Field Medals, number of highly cited researchers selected by Thomson Reuters, number of articles published in journals of Nature and Science, number of articles indexed in Science Citation Index- Expanded and Social Sciences Index, and per capita performance of a university. More than 1200 universities are ranked every year by ARWU every year and the best 500 are published.

**Table (3): The objective indicators of the academic ranking of world universities (ARWU)**

<b>Number</b>	<b>Objective indicators</b>	<b>%</b>
1	Number of alumni and staff winning Nobel Prizes	10 (Q. as absolute)
2	Number of alumni and staff winning Field Medals	20(Q. as absolute)
3	Number of highly cited researchers selected by Thomson Reuters	20 (Q. as relative, certain specifications, Q. as a process )
4	Number of articles published in journals of Nature and Science	20(Q. as relative, certain specifications, Q. as a process )
5	Number of articles indexed in Science Citation Index- Expanded and Social Sciences Index	20(Q. as relative, certain specifications, Q. as a process )
6	Per capita performance of a university	10 (Q. as a process )

#### **2- Times Higher Education World Rankings (THES)**

The Times Higher Education World Rankings judge research-intensive universities across all their missions: teaching, research, knowledge transfer and international outlook. The performance indicators are grouped into five areas (Table 4):

1. Teaching (the learning environment): 30%. This indicator deals with reputation survey. It examines the perceived prestige of institutions in teaching. Staff-student ratio, doctorate-to-bachelor`s ratio, doctorate awarded-to-academic staff ratio and institutional income.

2. Research (volume, income and reputation): 30%. This indicator deals with: reputation survey which looks at university`s reputation of research excellence among its peers, research income and research productivity.
3. Citation (research influence) 30%. This indicator looks at universities role in spreading new knowledge and ideas.
4. International outlook (staff, students, research): 7.5%. This indicator deals with the international-to-domestic-student ratio, international-to-domestic-staff ratio and international collaboration.
5. Industry income (knowledge transfer): 2.5%. This indicator suggests the extent to which businesses are willing to pay for research and university`s ability to attract funding in the commercial marketplace.

**Table (4): The performance indicators of the Times Higher Education World Rankings.**

Number	The performance indicators
1	<p><b>Teaching (the learning environment): 30%</b></p> <ul style="list-style-type: none"> <li>- reputation survey 15%</li> <li>- Staff-student ratio 4.5 %</li> <li>- doctorate-to-bachelor`s ratio 2.25%</li> <li>- doctorate awarded-to-academic staff ratio 6%</li> <li>- institutional income 2.25%</li> </ul>
2	<p><b>Research (volume, income and reputation): 30%</b></p> <ul style="list-style-type: none"> <li>university`s reputation of research excellence among its peers 18%</li> <li>research income 6%</li> <li>research productivity 6%</li> </ul>
3	<p><b>Citation (research influence) 30%</b></p>
4	<p><b>International outlook (staff, students, research): 7.5%</b></p> <ul style="list-style-type: none"> <li>international-to-domestic-student ratio 2.5%</li> <li>international-to-domestic-staff ratio 2.5%</li> <li>international collaboration 2.5%</li> </ul>
5	<p><b>Industry income (knowledge transfer): 2.5%</b></p>

### Quality of education

Here is an important question that should be asked. Do international ranking systems reflect the quality of higher education? Generally, to be ranked, higher education institute leaders should think of quality. Maintaining quality in teaching, learning, research, infrastructure, students as outputs of the learning process

and as inputs for the labor market, faculty development, curriculum objectives and contents and more are the way to be visible internationally. What is the concept of quality in higher education? Till now, there is no consensus on the definition of the quality in general. The word quality comes from the Latin word *qualis* meaning “what kind of”. According to this meaning, quality in higher education could be maintained through the “kind of” the activities the institutions provide. Are “the kind” of these activities is significant or enable the university to get prestige and status? The most widely accepted criterion of quality in education is probably “fitness for purpose”. According to this concept, quality is gauged in terms of whether or not a product or service meets its stated purpose or purposes (Magaud, 1999, 164).

### **Concept of quality in ranking system**

Usher and Savino (2006) stated that one of the main causes of institutional unease is the tendency of institutional ranking schemes to use weighted aggregates of indicators to arrive at a single, all-encompassing quality "score," which in turn permits institutions to be ranked against one another. By selecting a particular set of indicators and assigning each a given weight, the authors of these rankings are imposing a specific definition of quality on the institutions being ranked. Intriguingly, however, there is absolutely no agreement among the authors of these indicators as to what indicates quality. The world's main ranking systems bear little if any relationship to one another, using very different indicators and weightings to arrive at a measure of quality. This suggests that the position of certain institutions in their national rankings is largely a statistical fluke—if another country's ranking system were used, a different result might emerge. Yet, that said, certain institutions repeatedly come at the top of the heap regardless of the system of indicators and weights used (Usher and Savino 2006). As a conclusion of reviewing 19 league tables and university ranking systems, Usher and Savino (2006) found that, ranking systems with their use of arbitrary weightings, are driven by different purposes and concepts of university quality. According to Harvey and Green (1993), quality is, however, relative to the user and circumstances in which it is applied: it means different things to different people and/or is relative to ‘processes’ or ‘outcomes’.

### **Results and Discussion**

The relationship between quality and the objective and performance indicators of the ARWU and the THES are presented in Tables (5, 6). The whole concept of quality revolves around four central ideas: Quality as absolute, Quality as relative, Quality as a process and quality as a culture (CEO, NAAC, 12). When we consider quality as absolute, it is given and considered as the highest possible standards. This concept is clear in tow objective indicators of the ARWU. This ranking system gives 10% for the alumni and staff winning Nobel Prizes. Quality as relative suggests that the quality of a product or service can be described in relative

terms. Quality here can be measured in terms of certain specifications. This concept is clear in three objective indicators of the ARWU and four performance indicators in the THES ranking system. Quality as a process suggests that to achieve the quality of a product or service, it must undergo certain processes and conform to the procedural requirements. This is the ongoing activities of the higher education institutions to achieve quality in teaching, research and extension. It appears in four objective indicators of the ARWU and in five performance indicators in the THES ranking system. Quality as a culture recognizes the importance of organizational view of quality as a process of transformation, where each entity is concerned and acknowledges the importance of quality (CEO, NAAC, 12). As ranking systems become a standard feature in higher education systems, they are also increasingly accepted as an instrument for undertaking “quality assurance” (Sadlak, 2006). Safon (2013) noted that ranking bodies define quality by the number and prestige of publications and grants awards that a university’s faculty obtains. Specifically, ranking bodies count faculty publications and give additional points to what is recognized as “top- tier” journals (Linton, Tierney, & Walsh, 2011). This approach to the evaluation of faculty careers is problematic because it assumes that a valuable or standard faculty profile should be dominated by research activity. Furthermore, research suggests that when an institution intends to climb a ranking system, the approach to faculty evaluation skew heavily towards research and publication (Gonzalez, 2013; Henderson, 2009; O`Meara & Bloomgarden, 2011). It indicates that the ranking regime’s emphasis on certain faculty activities like research, publication and grant- getting enables the commodification of faculty work, a process in which faculty are distanced from the value assigned to their work, as it is turned into a product with exchange value (Gonzales & Nunez, 2014).

**Table (5): The relationship between quality central ideas and the objective indicators of the academic ranking of world universities (ARWU)**

Number	Objective indicators	%	Quality central ideas
1	Number of alumni and staff winning Nobel Prizes	10	Quality as absolute
2	Number of alumni and staff winning Field Medals	20	Quality as absolute
3	Number of highly cited researchers selected by Thomson Reuters	20	Quality as relative and as a process
4	Number of articles published in journals of Nature and Science	20	Quality as relative and as a process
5	Number of articles indexed in Science Citation Index- Expanded and Social Sciences Index	20	Quality as relative and as a process
6	Per capita performance of a university	10	Quality as a process



**Table (6): The relationship between quality central ideas and the performance indicators the Times Higher Education World Rankings (THES).**

Number	The performance indicators	Quality central ideas
1	<b>Teaching (the learning environment): 30%</b> - reputation survey 15% - Staff-student ratio 4.5 % - doctorate-to-bachelor`s ratio 2.25% - doctorate awarded-to-academic staff ratio 6% - institutional income 2.25%	Quality as relative and as a process
2	<b>Research (volume, income and reputation): 30%</b> university`s reputation of research excellence among its peers 18% research income 6% research productivity 6%	Quality as relative and as a process
3	<b>Citation (research influence) 30%</b>	Quality as relative and as a process
4	<b>International outlook (staff, students, research): 7.5%</b> international-to-domestic-student ratio 2.5% international-to-domestic-staff ratio 2.5% international collaboration 2.5%	Quality as relative and as a process
s5	<b>Industry income (knowledge transfer): 2.5%</b>	Quality as a process

## Conclusion

The central ideas of quality have been included in the objective and performance indicators of the Academic Ranking of World Universities (ARWU) and the Times Higher Education World rankings (THES). As ranking systems become a standard feature in higher education systems, a certain high-quality level must be achieved in teaching, research and publication. So, maintaining quality in higher education institutes is the way for the world ranking. The four quality central ideas are applied in higher education ranking in different terms. Beside those, quality is measured by ranking bodies by the number and prestige of publications and grants awards that a university`s faculty obtains. This is the most important quality aspect that an institute must take under consideration. Quality as a culture is also suitable concept to be considered in higher

education institutes, because it recognizes the importance of organizational view of quality. This enable the higher education institutes to improve themselves within their philosophy and objective.

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### التصنيف العالمي للجامعات والجودة في التعليم العالي

الملخص: إن المتطلبات المتزايدة لسوق العمل لبعض المؤهلات المطلوبة لمواكبة التطور السريع خلال القرن الحادي والعشرين، تتطلب المزيد من الجهود من قادة التعليم العالي لجذب الانتباه إلى جودة التعليم الذي يقدمونه. تقدم هذه الورقة نظرة عامة على أنظمة التصنيف كمؤشر عالمي للمنافسة بين مؤسسات التعليم العالي للحصول على مركز دولي، وتهدف إلى إيجاد العلاقة بين الجودة في التعليم العالي ونظم تصنيف الجامعات العالمية. استخدم الباحث المنهج الوصفي لدراسة العلاقة بين الجودة في التعليم العالي ومؤشرات الأداء والأهداف للتقييم الأكاديمي للجامعة العالمية (ARWU) ومؤشر التاييمز للتعليم العالي العالمي (THES)، على الترتيب. اعتمدت الدراسة على الأدبيات والمراجع التي تناولت الموضوع. خلصت الورقة إلى أن الأفكار الأساسية للجودة قد تم تضمين ثلاث منها في مؤشرات الأهداف والأداء للترتيب الأكاديمي للجامعات العالمية وتصنيفات تاييمز للتعليم العالي العالمية. وبما أن أنظمة التصنيف أصبحت سمة قياسية في أنظمة التعليم العالي، فإنه يجب تحقيق مستوى معين من الجودة العالية في التدريس والبحث والنشر. لذا تعتبر الجودة مهمة جداً كأساس للتصنيف، والحفاظ على الجودة في معاهد التعليم العالي هو السبيل للحصول على مركز في ترتيب الجامعات العالمية.

الكلمات المفتاحية: تصنيف الجامعات، التعليم العالي، الجودة.