

# On the interpretation and misinterpretation of university rankings<sup>a</sup>



**KNOWLEDGE IN ACTION** 

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National				Worldwide			
League		Multidimensional		League		Multidimensional	
<b>Research only</b>	Multifactorial	<b>Research only</b>	Multifactorial	<b>Research only</b>	Multifactorial	Research only	Multifactorial
	Perspektywy		CHE	ARWU	THE		U-Multirank
					QS	CWTS	

#### <u>Choice of indicators</u><sup>b</sup>

• Complex processes, but simple indicators

#### Public databases (e.g. WoS, Scopus)

• International, scientific articles

- Proxies or representative?
  - e.g. ARWU: education = alumni with a Nobel prize
- Size dependent: absolute or relative indicators?
  - e.g. staff: fte or headcounts?
- Quantity versus efficiency

## Semantic description of indicators<sup>b</sup>

- Lack of/poor semantic description of indicators
  - e.g. PhD student = student or researcher?
- Context-specific interpretation resulting in differences in data collection

#### **Example: Belgium - CWUR Ranking**



University ranking results

- Other article types? Books? Non-English publications?
- Field-specific (dis)advantages

## **Universities**

- In-depth data but often not objective
- Lack of proper control mechanisms on data
- Time-consuming

## <u>Surveys</u>

- Up to 50% of total ranking score (e.g. QS)
- Response-rate often very low
- Reputation representative for:
  - Performance analysis
  - Quality

#### **Transparency**

• Is methodology adequately described?

## **Objectivity**

• Often predefined choice of weights

- → Ranking score ≠ ranking position
- Differences in ranking position
  starting from 50 are meaningless
  due to small differences in ranking
  score<sup>d</sup>

## **Interpretation of ranking results**

- Frequent error: only focus on ranking position
  - Total ranking score = sum of proxies
  - Ranking score ≠ ranking position
- Example:

ndicators

	2015		2016		
	Rank	Score (%)	Rank	Score (%)	
JNIV X	55	63.7	35	74.8	
JNIV Y	90	56.2	118	56.6	

#### Poor description of methodology

• e.g. publications: whole or fractional counting?

#### **Calculation of total ranking score**<sup>c</sup>

• e.g. THE ranking

Indicator	Weight		
Teaching	30%		
Research	30%		
Citations	30% 🗖		
Industry income	2.5% 🖊		
International outlook	7.5%		
TOTAL SCORE	100%		

#### **×** 50 Euro + 50 GBP ≠ 100 Euro

✓ 50 Euro + 50 GBP = 119.5 Euro
 \* 50 GBP = 69.5 Euro

## Guidelines: How to interpret ranking results

- What are the objectives of the ranking?
- What is the target audience?
- Which indicators are used?
  - Do indicators take into account the context, mission, disciplines of a university?
  - To what extent are the indicators representative?
  - To what extent are the indicators objective?
- Are the indicators and the used methodology semantically described in full detail?
- How is the data collected and calculated?

## References

<sup>a</sup>Poelmans, H., Vancauwenbergh, S. (2016). Over interpretatie en misinterpretatie van universitaire rankings. *Tijdschrift voor onderwijsrecht en onderwijsbeleid*, 2-3, 146-154.

<sup>b</sup>Rauhvargers, A. (2013). 'EUA Report on Rankings 2013: Global University Rankings and Their Impact II', European University Association.

<sup>c</sup>Soh, K. (2013). Misleading university rankings: cause and cure for discrepancies between nominal and attained weights, Journal of Higher Education Policy and Management, 35(2), 206-214.

<sup>d</sup>Sorz, J., Wallner, B., Seidler, H., Fieder, M. (2015). Inconsistent year-to-year fluctuations limit the conclusiveness of global higher education rankings for university management. PeerJ 3:e1217; DOI 10.7717/peerj.1217