On the interpretation and misinterpretation of university rankings

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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


Example: Belgium - CWUR Ranking

→ Ranking score ≠ ranking position
→ Differences in ranking position starting from 50 are meaningless due to small differences in ranking score

Choice of indicators
• Complex processes, but simple indicators
• 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
• Lack of/poor semantic description of indicators
  • e.g. PhD student = student or researcher?
• Context-specific interpretation resulting in differences in data collection

Public databases (e.g. WoS, Scopus)
• International, scientific articles
• 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

Surveys
• 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

Poor description of methodology
• e.g. publications: whole or fractional counting?

Calculation of total ranking score
• e.g. THE ranking

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>30%</td>
</tr>
<tr>
<td>Research</td>
<td>30%</td>
</tr>
<tr>
<td>Citations</td>
<td>30%</td>
</tr>
<tr>
<td>Industry income</td>
<td>2.5%</td>
</tr>
<tr>
<td>International outlook</td>
<td>7.5%</td>
</tr>
<tr>
<td>TOTAL SCORE</td>
<td>100%</td>
</tr>
</tbody>
</table>

Example: 2016

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2016</th>
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</thead>
<tbody>
<tr>
<td>UNIV X</td>
<td>Rank</td>
<td>Score (%)</td>
</tr>
<tr>
<td></td>
<td>55</td>
<td>63.7</td>
</tr>
<tr>
<td>UNIV Y</td>
<td>90</td>
<td>56.2</td>
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