



Faculty professional development as a determinant of success in international university rankings

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Annotatsiya. International university rankings are often discussed in terms of metrics and methodologies, yet the academic workforce that produces those metrics receives comparatively little analytical attention. This article offers a narrative review of the literature on faculty professional development and university rankings, arguing that the continuous professional development of academic staff is a primary, though frequently underestimated, determinant of an institution's success in international rankings. Examining the methodologies of the QS World University Rankings, the Times Higher Education World University Rankings and the Academic Ranking of World Universities, the article shows that the majority of ranking weight in each system is shaped, directly or indirectly, by faculty quality, productivity and reputation. It then synthesises evidence on how faculty professional development operates through four interconnected pathways, teaching quality, research productivity, academic reputation, and quality culture and leadership, each of which feeds ranking-relevant outcomes. The review concludes that institutions seeking durable ranking improvement should treat investment in their academic staff not as an administrative cost but as the central engine of competitiveness, while remaining alert to the limitations of indicator-driven approaches to academic work.

Kalit so'zlar: faculty professional development, academic staff development, international university rankings, research productivity, teaching quality, academic reputation, quality culture, higher education.

Профессиональное развитие преподавателей как фактор успеха в международных университетских рейтингах

Аннотация. Международные университетские рейтинги чаще всего рассматриваются через призму их показателей и методологий, однако академическому персоналу, который формирует эти показатели, уделяется сравнительно меньше внимания. В данной статье представлен обзор научной литературы по проблеме профессионального развития преподавателей и университетских рейтингов. Обосновывается положение о том, что непрерывное профессиональное развитие академических сотрудников является одним из ключевых, хотя и нередко недооцениваемых факторов успеха университета в международных рейтингах. На основе анализа методологий QS World University

Rankings, Times Higher Education World University Rankings u Academic Ranking of World Universities показано, что основная часть рейтинговых показателей прямо или косвенно определяется качеством профессорско-преподавательского состава, его научной продуктивностью и академической репутацией. В статье также обобщены данные о том, что профессиональное развитие преподавателей влияет на результаты, значимые для рейтингов, через четыре взаимосвязанных направления: качество преподавания, научную продуктивность, академическую репутацию, а также культуру качества и лидерство. В заключение делается вывод о том, что университеты, стремящиеся к устойчивому улучшению своих позиций в рейтингах, должны рассматривать инвестиции в развитие академического персонала не как административные расходы, а как основной механизм повышения конкурентоспособности. Вместе с тем подчёркивается необходимость учитывать ограничения подходов, ориентированных исключительно на рейтинговые показатели.

Ключевые слова: профессиональное развитие преподавателей, развитие академического персонала, международные университетские рейтинги, научная продуктивность, качество преподавания, академическая репутация, культура качества, высшее образование.

Xalqaro universitet reytinglarida muvaffaqiyat omili sifatida professor-o'qituvchilarning kasbiy rivojlanishi

Annotation. Xalqaro universitet reytinglari ko'pincha ularning mezonlari va metodologiyalari nuqtayi nazaridan muhokama qilinadi, biroq ushbu ko'rsatkichlarni shakllantiruvchi akademik kadrlar omiliga nisbatan kamroq ilmiy e'tibor qaratiladi. Mazkur maqolada professor-o'qituvchilarning kasbiy rivojlanishi va universitet reytinglari o'rtasidagi bog'liqlik bo'yicha ilmiy adabiyotlar tahlil qilinib, akademik xodimlarning uzluksiz kasbiy rivojlanishi oliy ta'lim muassasalarining xalqaro reytinglardagi muvaffaqiyatini belgilovchi asosiy, biroq ko'pincha yetarlicha baholanmaydigan omil ekanligi asoslanadi. QS World University Rankings, Times Higher Education World University Rankings hamda Academic Ranking of World Universities metodologiyalari tahlili asosida ushbu reytinglardagi ko'rsatkichlarning asosiy qismi professor-o'qituvchilarning sifati, ilmiy mahsuldorligi va akademik obro'si bilan bevosita yoki bilvosita bog'liqligi ko'rsatib beriladi. Shuningdek, kasbiy rivojlanishning ta'lim sifati, ilmiy tadqiqotlar samaradorligi, akademik nufuz hamda sifat madaniyati va liderlik kabi o'zaro bog'liq to'rtta asosiy yo'nalish orqali reyting natijalariga ta'sir ko'rsatishi yoritiladi. Tadqiqot xulosasiga ko'ra, reytinglardagi o'rnini barqaror yaxshilashni maqsad qilgan universitetlar akademik xodimlarga investitsiyani ma'muriy xarajat emas, balki raqobatbardoshlikning asosiy harakatlantiruvchi kuchi sifatida baholashi zarur. Shu bilan birga, akademik faoliyatni faqat reyting indikatorlari asosida baholashning cheklovlarini ham inobatga olish lozim.

Keywords: professor-o'qituvchilarning kasbiy rivojlanishi, akademik xodimlar rivoji, xalqaro universitet reytinglari, ilmiy mahsuldorlik, ta'lim sifati, akademik nufuz, sifat madaniyati, oliy ta'lim.

INTRODUCTION

International university rankings have become a defining feature of the global higher education landscape, influencing the strategic decisions, reputational positioning and resource allocation of universities worldwide [1]. The scholarly and policy debate that

surrounds them tends to focus on methodologies, indicator weightings and the validity of comparisons across very different institutions. What is discussed far less often is the human factor that ultimately produces the data on which rankings are built: the academic staff. Publications, citations, teaching reputation, graduate outcomes and peer esteem are all, in the final analysis, products of the work of faculty members.

This observation reframes the question of ranking success. If the indicators that rankings measure are produced by academic staff, then the systematic development of that staff including their pedagogical skills, research capacity, scholarly networks and professional motivation, becomes a foundational determinant of an institution's ranking trajectory. Faculty professional development, understood as the structured set of activities aimed at improving the knowledge, skills and attitudes of academics, is therefore not merely a support function but a strategic lever of competitiveness [2; 3]. The objective of this article is to review the literature connecting faculty professional development to ranking-relevant outcomes and to propose a conceptual account of how the former drives the latter. The article synthesises peer-reviewed studies, systematic reviews and ranking methodology documents to clarify the relationship and to identify pathways through which faculty development shapes ranking success.

LITERATURE REVIEW AND METHODOLOGY

A narrative review was conducted, drawing on peer-reviewed journal articles, systematic reviews and official ranking methodology documents published mainly between 2006 and 2026. Three literatures were brought into dialogue: studies of faculty and academic staff professional development; analyses of university ranking methodologies and the bibliometric and reputational indicators they use; and research on quality culture and academic leadership. Sources were selected for their relevance and verifiability, with priority given to systematic reviews and to publications carrying digital object identifiers or stable institutional links. The review interprets these sources thematically, focusing on the mechanisms through which the development of academic staff translates into ranking-relevant performance.

FACULTY QUALITY AS THE HIDDEN CORE OF RANKING METRICS

A close reading of the major ranking methodologies reveals that faculty quality, productivity and reputation underpin the greater part of the weighting in each system. In the QS World University Rankings, academic reputation carries a weight of thirty per cent and citations per faculty twenty per cent, with the faculty-to-student ratio and the international faculty ratio adding further weight [13]. Empirical analysis of QS data confirms that reputation-based indicators are the most influential in determining institutional rank [12]. In the Times Higher Education World University Rankings, the teaching, research-environment and research-quality pillars together account for the overwhelming majority of the score, and each is driven by the reputation, productivity and citation impact of academic staff. In the Academic Ranking of World Universities, indicators relating to faculty awards, highly cited researchers and research output dominate the methodology. Table 1 summarises the principal faculty-related indicators across the three systems.

Table 1. Principal faculty-related indicators across major ranking systems

Ranking system	Faculty-related indicators	Approx. weight
QS World University Rankings	Academic Reputation; Citations per Faculty; Faculty–Student Ratio; International Faculty Ratio	30% + 20% + 10% + 5%
THE World University Rankings	Teaching (incl. teaching reputation); Research Environment (reputation, income, productivity); Research Quality (citation impact, strength, excellence, influence)	29.5% + 29% + 30%

ARWU (ShanghaiRanking)	Staff winning Nobel/Fields awards; Highly Cited Researchers; Papers in Nature & Science; Papers in SCIE/SSCI; Per-capita performance	20% + 20% + 20% + 20% + 10%
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When these faculty-related indicators are aggregated, they constitute the dominant share of the total weighting in every system, as illustrated in Figure 1. This pattern carries a clear implication: an institution cannot substantially improve its ranking position without improving the underlying performance of its academic staff. Research productivity, in particular, has been shown to correlate with university ranking positions across QS, THE and ARWU, even though the strength of the correlation varies between systems [11]. Faculty quality is therefore not one factor among many but the hidden core of the ranking enterprise.

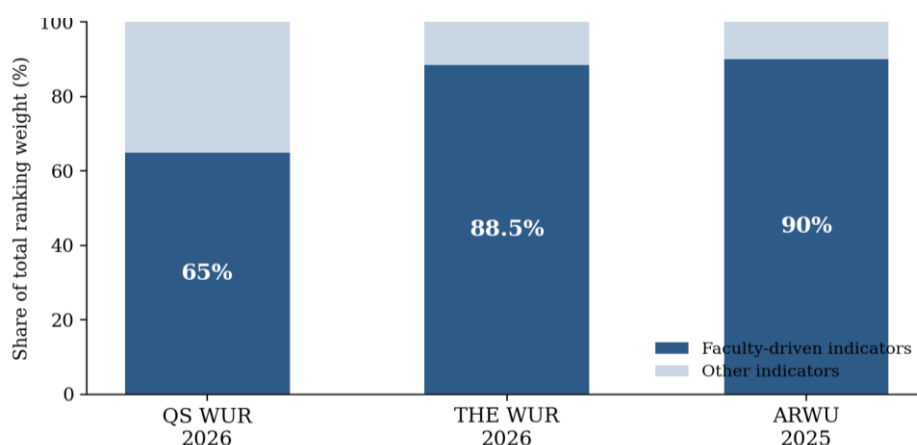


Figure 1. Approximate share of ranking weight shaped by faculty quality, productivity and reputation (author's analysis based on published methodologies [13])

CONCEPTUALIZING FACULTY PROFESSIONAL DEVELOPMENT

Faculty professional development is a broad construct encompassing workshops, mentoring schemes, pedagogical training programmes, research capacity building, peer observation and collaborative learning communities. A systematic review of continuous professional development in higher education found that the concept is understood variously as the set of activities and interventions aimed at improving the knowledge, skills and attitudes of academics, and that its forms, focus areas and expected outcomes differ widely across institutions [3]. World-class universities typically institutionalise this function through dedicated faculty development centres that coordinate programmes supporting teaching, research and student learning [7].

The literature also emphasises that the effectiveness of professional development depends on its design. Pedagogy-focused academic development that moves beyond one-off workshops toward sustained, practice-embedded learning has been shown to improve teaching quality [6], and a systematic review of pedagogical development programmes confirms that their characteristics are systematically related to teacher development outcomes [5]. Team-based and community-based approaches, in which academics learn together rather than individually, have attracted particular attention as effective models of development [4]. Need-oriented approaches, which tailor development to the self-identified needs of academic staff, further increase relevance and engagement [8]. International evidence likewise stresses that effective professional development is collaborative, context-sensitive and sustained over time [17].

FOUR PATHWAYS FROM FACULTY PROFESSIONAL DEVELOPMENT TO RANKING SUCCESS

Synthesising the evidence, four interconnected pathways can be identified through which faculty professional development feeds the outcomes that rankings measure. These pathways are represented schematically in Figure 2.

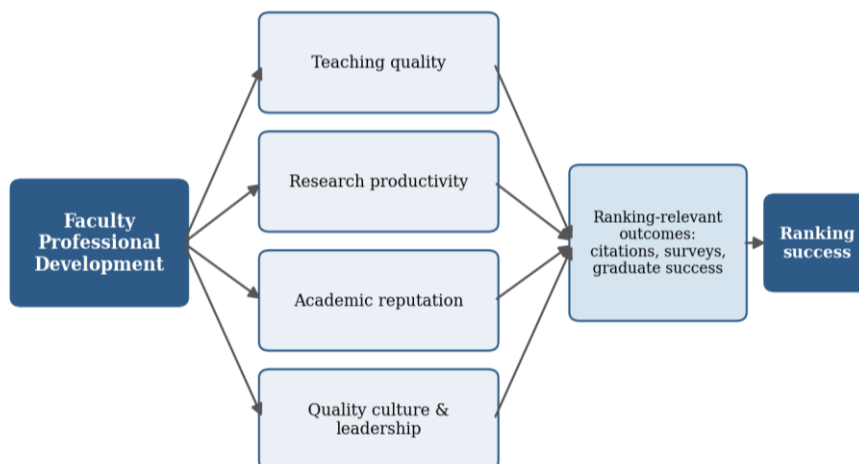


Figure 2. Pathways linking faculty professional development to international ranking success

RESULTS AND DISCUSSION

The teaching-quality pathway. The first pathway runs from professional development through improved teaching to ranking-relevant outcomes such as teaching reputation, graduate satisfaction and employability. A scoping review of teacher effectiveness in higher education shows that high-quality teaching is among the most important factors in improving student achievement, even though its measurement remains contested [9]. When development programmes equip academics with evidence-based pedagogical techniques, student engagement and learning outcomes improve, which strengthens the teaching-related indicators in the rankings. The quality of academic staff is thus the precondition for a market-ready graduate profile [8].

The research-productivity pathway. The second pathway connects development to research output and citation impact. Faculty development that builds research capacity, methodological skill and scholarly writing competence increases both the volume and quality of publications, which directly affects citation-based indicators. Notably, research activity and teaching effectiveness are not in opposition: a Bayesian analysis found faculty research productivity to be positively and significantly related to teaching effectiveness, indicating that investment in research capacity yields dual benefits [10]. Because bibliometric indicators correlate with ranking positions across systems [11], the research-productivity pathway is among the most consequential for ranking success.

The academic-reputation pathway. The third pathway operates through peer esteem. Academic and employer reputation surveys carry very large weights in the QS and THE methodologies, and empirical analysis confirms reputation indicators as the most influential determinants of rank [12; 13]. Reputation is built over time through visible scholarship, conference presence, editorial roles and disciplinary leadership, all of which professional development cultivates. Mentoring is an important mechanism here: a systematic review of mentoring in higher education documents its positive effects on academic and career development, which in turn strengthen the scholarly visibility on which reputation rests [14]. Faculty development thus shapes the collective reputational capital that reputation surveys measure.

The quality-culture and leadership pathway. The fourth pathway is institutional. Professional development does not operate in a vacuum; its effects are amplified or dampened by the institution's quality culture and academic leadership. Research on quality

culture shows that it consists of shared values of excellence, continuous improvement and accountability that permeate the institution, and that it can be strengthened through structured, maturity-based approaches [16]. Leadership, particularly at the departmental level, plays a critical role in advancing quality imperatives and embedding quality as an institutional culture [15]. When faculty development is embedded in a supportive quality culture and championed by academic leaders, its contribution to ranking-relevant performance becomes durable rather than episodic.

Three cautions temper the argument. First, the relationship between faculty development and rankings is mediated and probabilistic, not mechanical; development improves the conditions for strong performance without guaranteeing it, and the lag between investment and measurable ranking change can be considerable. Second, an exclusive focus on ranking-relevant outputs risks distorting the purpose of professional development, encouraging a narrow concentration on citation-generating research at the expense of teaching, mentoring and public engagement that rankings capture imperfectly [9]. Third, ranking methodologies themselves embed biases – for instance toward larger, research-intensive institutions, that no amount of faculty development can fully offset [12]. Faculty development should therefore be pursued primarily for its intrinsic educational value, with ranking improvement understood as a likely by-product rather than the sole aim.

CONCLUSION

This narrative review has argued that faculty professional development is a primary determinant of success in international university rankings. Because the indicators that rankings measure (citations, teaching quality, academic and employer reputation, graduate outcomes) are ultimately produced by academic staff, the systematic development of that staff sits at the causal root of ranking performance. The article identified four pathways through which this influence operates: teaching quality, research productivity, academic reputation, and quality culture and leadership. Each connects the development of individual academics to institution-level outcomes that rankings register.

The practical implication is that universities aspiring to durable ranking improvement should treat investment in their academic workforce not as a discretionary cost but as the central engine of competitiveness, institutionalised through dedicated development structures, sustained pedagogical and research capacity building, mentoring and a supportive quality culture. At the same time, faculty development is most effective and most ethical when it is pursued for the intrinsic improvement of teaching, scholarship and academic community, with ranking success following as a consequence rather than serving as the goal.

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