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Cross Validation of Governance Significance among WFME Concepts

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Abstract

Understanding concepts through the accommodation discourse is vitally important for linguistic agreements. In WFME standards, concepts are regarded as milestones of quality assurance and improvement; accordingly, the study was designed in three phases. In the first phase, a nationwide expert panel utilized structured focus group discussions as the primary consensus mechanism to extract and rank significant concepts. In the second phase, conducted during a dedicated workshop at the WFME International Conference in Thailand, a formal survey was administered to 50 international participants to rank the concepts and gather qualitative justifications. In the third phase—which is the focus of this paper—results from the two previous rounds were employed using Generative Text-driven AI (Perplexity) to formulate cogent arguments based on the principles of reasoning. Utilizing an expertise-oriented evaluation approach, three structured arguments were designed based on the authors' experiences. The dialogue examined the relative importance of key WFME concepts, the primacy of governance as the mechanism underpinning mission and values, and the intertwinement of governance and social accountability through a "domino" metaphor. The AI's responses demonstrated that argumentation-based prompting can guide coherent reasoning without direct citation support, highlighting governance as a foundational construct influencing mission alignment, accountability mechanisms, and contextual adaptation. Furthermore, the analysis contrasted top-down governance models with bottom-up approaches more applicable to developing contexts. Findings suggest that text-driven AI can function as a reflective partner in standards interpretation, provided that arguments are linguistically precise and grounded in expertise.

Keywords: Medical Education, WFME Standards, Governance, Social Accountability, Artificial Intelligence, Program Evaluation

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Introduction

Artificial intelligence (AI) has emerged as a prominent concept across various domains. AI can be applied in multidisciplinary and transdisciplinary fields, necessitating a user or network of users who possess multidiscipline and transdisciplinary expertise. In this context, text-driven AIs (1) represent a specialized category widely utilized in the field of education. One notable discipline within education studies is Health Professions Education (HPE), which, as the literature indicates, requires the addition of "studies" at the end, thus becoming HPES. If education studies is regarded as a megadiscipline, then HPES can be considered a discipline, with evaluation as a major subdiscipline. Program evaluation, a primary subset of assessment, encompasses various approaches. As Worthen highlights, the expertise-oriented approach is particularly relevant. This approach incorporates internal assessment (self-study), external assessment (external review), and evaluation. Notably, the entire evaluation cycle is guided by standards that can be adapted and contextualized to meet specific requirements (2).

The World Federation for Medical Education (WFME) is a leading organization responsible for designing and

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Key Messages:

↑What is "already known" in this topic:

WFME standards guide quality improvement, emphasizing mission, values, and governance concepts.

→What this article adds:

Generative AI can act as a reflective partner to cross- validate governance and social accountability.

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developing global standards to ensure quality improvement in medical education. These standards cover various aspects of medical education and are presented as follows: 1. Postgraduate Medical Education – WFME Global Standards for Quality Improvement of Medical Education, The 2023 Revision. 2. Standards for Distributed and Distance Learning in Medical Education – WFME Global Standards for Quality Improvement, 2021. 3. Basic Medical Education – WFME Global Standards for Quality Improvement, The 2020 Revision. 4. Standards for Master's Degrees in Medical and Health Professions Education – WFME Global Standards for Quality Improvement, 2016. 5. Continuing Professional Development of Medical Doctors – WFME Global Standards for Quality Improvement, The 2015 and 2025 Revisions. 6. WFME Global Standards for Quality Improvement in Medical Education (European Specifications) – For Basic and Postgraduate Medical Education and Continuing Professional Development, 200.

In the updated editions of these standards, there has been a paradigm shift from a descriptive approach to a principles-based approach. A primary factor driving this shift is the emphasis on the role of context in the implementation of standards. Consequently, WFME permits contextual adaptation across all sets of standards to ensure their effective and practical application in diverse educational settings (3).

Methods

This study employed a qualitative research approach situated within an interpretive-critical paradigm. This design is epistemologically grounded in Gadamer's hermeneutic phenomenology (4), which positions dialogue, text interpretation, and the 'fusion of horizons' as the primary mechanisms for uncovering deeper institutional meanings. Guided by this framework, the study progressed through a three-phase design, transitioning from consensus-building to expert-driven AI interrogation, thereby treating text-driven AI as an active and reflective partner in standards interpretation.

Utilizing a text-driven chatbot named Perplexity AI, three arguments were presented regarding Metaverse regulations (5) in line with AI as assistance. The authors personified Perplexity, guiding it to understand, comprehend, interpret, infer, and potentially engage in higher stages of hermeneutics.

All phases of this study involving human participants were conducted in strict compliance with ethical research standards. Participation was entirely voluntary, and informed consent was obtained from all individuals prior to their involvement in the nationwide expert panel (Phase 1) and the conference workshop survey (Phase 2). To ensure absolute privacy, all data were collected, processed, and analyzed anonymously, and complete confidentiality of the participants was maintained throughout the study. To ensure methodological rigor and quality, this qualitative study adhered to the trustworthiness criteria proposed by Lincoln and Guba (6).

In this paper, the arguments presented are based on the expertise of the authors, who have held various roles as internal assessors, external assessors, and evaluators in both national and international contexts. Additionally, the authors' knowledge of linguistics informs how we can train text-driven AIs to serve as effective assistants, utilizing their reasoning and justification capabilities. Finally, a conclusion is provided to pave the way for further studies.

Question 1: Among the concepts based on various WFME standards, which concept is the most important, and what are the scientific reasons supporting this assertion? The concepts include mission, values, curriculum, student assessment, students, academic staff, educational resources, quality assurance, administration, and governance.

Among the WFME standards, mission and values are paramount. They define the educational institution's purpose and ethical framework, guiding all other standards, including curriculum design, student assessment, and governance. A clear mission aligns educational objectives with societal needs, ensuring that medical training effectively addresses public health challenges. This foundational aspect fosters a culture of quality improvement and accountability, which is essential for sustaining educational excellence in diverse contexts. Thus, the mission and values serve as the cornerstone for all other standards, influencing their implementation and effectiveness (7-13).
Question 2: The mission and values, when regarded as the most important concepts or as the cornerstone, are fundamentally linked to access to experts who the right individuals at the right time are and in the right place. These considerations form the principles of governance, as the mission and values should be articulated by experts. Consequently, the most important concept is governance. Do you agree with this reasoning?

Your reasoning presents a compelling argument for prioritizing governance as the most important concept among the WFME standards. Here is a breakdown of how governance can be viewed as foundational, particularly in relation to mission and values:

The Primacy of Governance

1. Framework for Decision-Making

Governance provides the structure through which an institution's mission and values are developed, articulated, and implemented. Effective governance ensures that the right experts are involved in shaping these foundational elements, thereby aligning them with educational goals and societal needs.

2. Accountability and Oversight

Strong governance mechanisms establish accountability for achieving the institution's mission. This includes oversight of curriculum development, student assessment, and resource allocation, ensuring that all aspects of the educational process are aligned with the stated values.

3. Stakeholder Engagement

Good governance involves engaging various stakeholders, including faculty, students, healthcare professionals, and community members, in the development and refinement of mission and values. This collaborative approach

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enhances buy-in and relevance, making the institution's objectives more robust.

4. Adaptability and Responsiveness

Governance structures that are well-designed can adapt to changing educational landscapes and public health needs. This adaptability is crucial for ensuring that the mission remains relevant over time, especially in a rapidly evolving field like healthcare.

5. Resource Allocation

Effective governance ensures that resources both human and material, are allocated in a manner that supports the institution's mission and values. This includes recruiting qualified academic staff and providing adequate educational resources.

Conclusion

While mission and values are indeed critical as they define the purpose and ethical framework of an institution, governance serves as the mechanism through which these elements are realized. Therefore, I concur with your reasoning that governance can be viewed as the most important concept among WFME standards. It is the backbone that supports the development, implementation, and sustainability of an institution's mission, ultimately influencing all other aspects of medical education.

The absence of a citation indicates that we could calibrate AI to reason based on the arguments we provided.

Question 3: I assert that the most important concept among those mentioned is governance. If the intertwinement and interaction of governance and social accountability are considered as a domino effect, then placing each appropriate element in the correct position and at the right time facilitates a smooth flow from beginning to end. In this metaphor, governance and accountability are interconnected. However, the governance and accountability outlined in WFME standards are approached from a top-down perspective, as noted in the Global Consensus for Social Accountability of Medical Schools in December 2010 in Africa. This top-down logic approach is suitable for developed countries, whereas a bottom-up model is more appropriate for developing countries (14). This implies training individuals for the right roles and utilizing them at the right times, thereby ensuring they become the right people. Do you agree with this reasoning?

Your reasoning about the interconnection between governance and social accountability in medical education is insightful and highlights important distinctions between developed and developing countries. Here's a structured analysis of your argument:

Governance and Social Accountability as Intertwined Concepts

1. Domino Metaphor

The domino metaphor effectively illustrates how governance and social accountability are interconnected. When governance is structured correctly, it facilitates social accountability, leading to a smooth operational flow within medical institutions. This interaction ensures that educational programs are responsive to community needs.

2. Top-Down vs. Bottom-Up Models

You rightly point out that the WFME standards often reflect a top-down approach to governance and accountability, which may be more suitable for developed countries with established systems. In contrast, a bottom-up model is more appropriate for developing countries, where local contexts and community needs should guide the training of healthcare professionals.

This bottom-up approach emphasizes the importance of identifying local health needs and training individuals who can effectively address those needs within their communities. It aligns with the principles of social accountability as defined by the WHO, which underscores the obligation of medical schools to respond to the health priorities of the societies they serve.

3. Training Local Potentials

The focus on training local potentials ensures that healthcare providers are not only well-trained but also culturally competent and aware of the specific health challenges faced by their communities. This approach fosters a sense of ownership and responsibility among graduates, enhancing their effectiveness in addressing local health issues.

4. Global Consensus for Social Accountability

The Global Consensus for Social Accountability of Medical Schools emphasizes the necessity for medical education to align with societal needs. By promoting a model that integrates local input and feedback, it bolsters the argument for a bottom-up approach in developing countries.

Conclusion

I agree with your reasoning that governance should be viewed as a foundational element that supports social accountability in medical education. The distinction between top-down and bottom-up approaches is crucial, particularly in recognizing that developing countries may benefit more from models that empower local stakeholders to shape educational priorities. This alignment between governance structures and community needs is essential for producing competent healthcare professionals who can effectively contribute to their societies (15-18).

Perspective AND Future Directions

As mentioned in the introduction section, text-driven AIs have the potential to be effectively trained. This training process necessitates the involvement of an expert panel to negotiate complex issues, such as the relationship between governance and social accountability. Such discussions require brainstorming, during which concepts like the "domino effect" may emerge as valuable metaphors. Drawing on Wittgenstein's emphasis on the "language game," the team should possess expertise in linguistic precision and creativity to formulate appropriate

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prompts. Similarly, as Perplexity suggests, identifying key threads can activate the underlying algorithms and optimize AI performance.

Recommendations for AI Input Structure

Moreover, when we provide well-referenced and structured inputs, such as those outlined in our questions, AIs are more likely to generate coherent and logically appropriate responses.

Limitations

Lastly, it is essential to consider the diversity of language styles. Interactions with Perplexity in this context were conducted using formal and academic language within the scope of educational studies. However, other styles, such as literary style, adhere to distinct rules and conventions that must be appropriately applied based on the specific purpose and context.

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Conflict of Interests

The authors declare that they have no competing interests.

Authors' Contributions

MA and MKh conceptualized and designed the study, led the execution of all three methodology phases, conducted the AI-assisted analysis and interpretation, and drafted the original manuscript. AKh, Ali H, and Abtin H contributed to the data collection during the expert panel and workshop phases, participated in the critical review of the findings, and provided substantial revisions to the manuscript. All authors reviewed and approved the final version for publication.

Ethical Considerations

Not applicable.

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Data Availability

The datasets generated and/or analyzed during the current study are available from the corresponding author on reasonable request.

AI Use Statement

AI as an assistant in cross-validation process has been calibrated in general and trained in particular to create the concept of the present paper.

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