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**REPRESENTATIONAL MEASUREMENT FAILURE IN  
HEALTH TECHNOLOGY ASSESSMENT**

**CANADA: CURRICULUM INVERSION AS THE  
FOUNDATION OF MEASUREMENT INVERSION**

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## ABSTRACT

*This report examines the extent of curriculum inversion within five leading Canadian health technology assessment (HTA) research centers: the Toronto Health Economics and Technology Assessment Collaborative (THETA), the Health Technology and Policy Unit (HTPU), the Institute of Health Economics (IHE), the Institute for Clinical Evaluative Sciences (ICES), and the Centre for Clinical Epidemiology and Evaluation (C2E2). The assessment forms part of a broader international program of large language model (LLM) interrogations that have identified a pervasive pattern of measurement inversion across HTA agencies, research centers, academic programs and professional organizations. Measurement inversion occurs when arithmetic precedes measurement; quantitative analyses are undertaken without first establishing that the quantities involved satisfy the requirements of measurement science.*

*The report introduces the concept of curriculum inversion as the educational counterpart of measurement inversion. Curriculum inversion occurs when students and researchers are taught how to apply quantitative methods, economic evaluations, utility assessments, QALYs and simulation models without first being introduced to the principles of representational measurement, scale theory, unidimensionality, ratio measurement, latent attribute measurement and Rasch measurement. As a consequence, the concepts required to evaluate the scientific legitimacy of HTA methods are absent from the educational environment that reproduces those methods.*

*Five Canadian HTA research-center knowledge bases were interrogated using ten canonical curriculum statements representing the minimum foundations required for a measurement-based approach to therapy assessment. The results demonstrate a striking consistency across all centers. Strong endorsement was observed for outcome identification, target attribute specification and, to a lesser extent, falsifiable claims. In contrast, there was uniformly weak endorsement of scales of measurement, representational measurement, unidimensionality, latent attribute measurement, ratio measurement and the distinction between manifest and latent attributes. Particularly notable was the near complete absence of Rasch measurement, despite its unique role in constructing measures of latent attribute possession.*

*These findings suggest the existence of a common Canadian HTA curriculum culture in which measurement science occupies a peripheral position while economic evaluation and reference-case methodologies occupy a central role. The report concludes that curriculum inversion is a major mechanism through which measurement inversion is reproduced within Canadian HTA. Reconstruction of HTA therefore requires not only methodological reform but educational reform. Until measurement science becomes a central component of HTA curricula, the conditions that sustain measurement inversion and paradigm failure will continue to be reproduced across research, policy and professional practice.*

## INTRODUCTION

The starting point for any reconstruction of health technology assessment (HTA) in Canada must be an understanding of the scale and consistency of the false measurement inversion that characterizes the field. Over the past several months, a series of large language model (LLM) interrogations has been undertaken to evaluate HTA knowledge bases across multiple jurisdictions. These interrogations have encompassed national reimbursement agencies, academic research centers, professional organizations, journals, pharmacy schools and HTA teaching programs in Australia, New Zealand, the United Kingdom, Europe, Singapore and the United States. Although the institutions differ in structure, mission and geographical location, the results have been remarkably consistent. The same pattern of measurement inversion appears irrespective of country, discipline or organizational setting.

The concept of measurement inversion is straightforward. In the physical and social sciences, measurement precedes arithmetic. Before quantities can be added, multiplied, transformed or modelled, the measurement properties of those quantities must first be established. HTA in Canada reverses this sequence. Numerical operations are routinely undertaken without demonstrating that the quantities involved satisfy the requirements of measurement. Arithmetic is treated as a substitute for measurement rather than a consequence of measurement. The result is a framework in which numerical manipulation takes precedence over the validation of the quantities being manipulated.

The large language model (LLM) interrogations reveal this inversion repeatedly <sup>1</sup>. Across institutions there is little awareness of scales of measurement, the distinction between ordinal, interval and ratio scales, the role of unidimensionality, the axioms of representational measurement, dimensional homogeneity, or the distinction between manifest and latent attributes. At the same time, there is widespread endorsement of analytical frameworks that depend upon precisely those concepts. Utilities are treated as though they possess interval or ratio properties. Quality-adjusted life years are accepted as quantitative measures despite the absence of demonstrable ratio-scale foundations. Reference-case simulation models are employed to generate lifetime cost-effectiveness claims without establishing the measurement properties of the underlying inputs. The pattern is universal.

The significance of these findings lies not merely in the demonstration of measurement failure but in the realization that measurement inversion is now institutionalized. It is embedded in teaching programs, methodological guidance, research publications and policy frameworks. Canada is no exception. Researchers entering the field encounter an intellectual environment in which the requirements of measurement are rarely discussed and almost never presented as prerequisites for quantitative claims. Consequently, the acceptance of measurement inversion becomes self-reinforcing. Successive generations of researchers inherit analytical frameworks without being introduced to the measurement principles required to evaluate them. It is possible for a professional career to pass without knowledge of the scales of measurement or the axioms of representational measurement <sup>2 3</sup>.

It is worth noting the complete absence of Rasch measurement from the curriculum profiles of the Canada HTA research centers <sup>4</sup>. This omission is particularly significant because Rasch

measurement represents the only established framework that provides the necessary and sufficient conditions for transforming observations relating to a latent attribute into a measure. The central issue is not statistical sophistication but measurement itself. Latent attributes such as symptom burden, functional status, treatment satisfaction, need fulfilment and quality of life cannot be observed directly. They require a measurement model capable of estimating possession of the attribute while demonstrating unidimensionality, invariance and appropriate scale properties. Rasch measurement was developed specifically to meet these requirements. Its absence suggests that faculty and students are not exposed to the concept of latent attribute possession, nor to the scientific challenge of constructing measures from observations. Instead, there is a tendency to treat questionnaire scores, indexes and composite summaries as though they were measures in their own right.

The result is that one of the most important developments in measurement theory over the past 80 years is effectively invisible within Canada HTA education. Without exposure to Rasch measurement, faculty and students are unlikely to appreciate that latent attributes require a fundamentally different approach to measurement from manifest attributes, or that quantitative claims regarding latent phenomena require a demonstrable measurement framework before arithmetic operations can be justified.

This observation raises an obvious question. If measurement inversion is so widespread and persistent, where does it originate? The answer cannot be found solely in research practice or policy guidance. Attention must also be directed toward education. If the concepts necessary to recognize measurement failure are absent from the curriculum, then measurement inversion becomes the expected outcome rather than an isolated error. Researchers cannot be expected to evaluate measurement claims and the unique contribution of ratio measurement if they have never been introduced to scales of measurement, representational measurement, ratio scales, unidimensionality, or the distinction between manifest, latent attributes and even Rasch measurement <sup>5</sup>

## **CURRICULUM INVERSION**

Curriculum inversion occurs when a curriculum teaches the application of quantitative methods while failing to teach the measurement principles that determine whether those methods are scientifically legitimate. In a scientifically coherent curriculum, measurement precedes arithmetic. Students first learn the nature of attributes, the requirements of representational measurement, the distinctions among nominal, ordinal, interval and ratio scales, and the conditions necessary for valid quantitative claims. Only then are they introduced to the arithmetic, statistical and modelling procedures that depend upon those measurement properties. Curriculum inversion reverses this sequence. Students learn how to calculate, model and analyze before they learn how to determine whether the quantities entering those analyses are measures. Arithmetic becomes detached from measurement and numerical manipulation is treated as though it were equivalent to quantitative science.

The consequences are profound. A curriculum affected by inversion reproduces a professional culture in which measurement is assumed rather than demonstrated. Concepts such as unidimensionality, dimensional homogeneity, admissible arithmetic, manifest and latent attributes,

ratio measurement and Rasch measurement either disappear entirely or are treated as peripheral concerns. Students become proficient in the techniques of economic evaluation, utility assessment, QALY construction and simulation modelling without acquiring the conceptual tools necessary to evaluate the legitimacy of those methods. The result is that the curriculum not only fails to identify measurement errors but actively reproduces them across successive generations of researchers, analysts and decision makers. Curriculum inversion therefore serves as the educational mechanism through which measurement inversion becomes institutionalized within a discipline.

For this reason, curriculum assessment emerges as a critical component of HTA reconstruction. The objective is not simply to determine whether students are exposed to contemporary HTA methods. Rather, it is to determine whether they are exposed to the foundational concepts that make the evaluation of those methods possible. A curriculum that emphasizes modelling, economic evaluation and decision analysis while neglecting measurement theory will inevitably reproduce the same conceptual limitations observed in current HTA practice.

The curriculum interrogations undertaken across Canada HTA research centers provide compelling support for this interpretation. While there is evidence that students and researchers are introduced to outcomes assessment, target attributes and scientific claims, there is little evidence of systematic exposure to scales of measurement, the axioms of representational measurement, unidimensionality, latent attribute measurement or ratio measurement. The concepts most frequently absent from curriculum coverage are precisely those concepts most frequently absent from HTA practice. The relationship is unlikely to be coincidental.

The imperative of measurement inversion therefore extends beyond criticism of existing methods. It points directly to the need for educational reconstruction. If HTA is to move toward a framework based on lawful measurement, evaluable claims and empirical falsification, then curriculum reform must accompany methodological reform. The widespread and consistent pattern of measurement inversion revealed by the LLM interrogations suggests that reconstruction cannot begin with policy guidance or analytical techniques alone. It must begin with the curriculum. Until students and researchers are introduced to the foundations of measurement science, the conditions that created measurement inversion will continue to be reproduced throughout the HTA community.

## **DEFINING THE KNOWLEDGE BASE**

The first step in any LLM interrogation is to define the knowledge base to be interrogated. The validity of the interrogation depends upon ensuring that the knowledge base reflects the information environment that shapes teaching, research and professional practice. In the present assessment, the curriculum knowledge base for each research center is defined as the totality of publicly accessible materials that contribute to HTA education and training. These include curriculum descriptions, course outlines, program objectives, teaching materials, methodological guidance documents, seminar and workshop content, faculty publications, doctoral training resources, research center reports, conference presentations, policy briefs and other materials through which knowledge is communicated to students, researchers and professional staff.

The objective is not to evaluate individual courses or instructors but to assess the broader intellectual environment within which HTA concepts are introduced, reinforced and transmitted.

The resulting curriculum knowledge base is assumed to represent the concepts and principles that students and researchers are most likely to encounter during their exposure to the research center and its associated educational activities. It is this knowledge base that is interrogated to determine the extent to which the foundational concepts required for a measurement-based approach to therapy assessment are present, absent or only weakly represented.

## **INTERROGATING THE CURRICULUM**

The identification of measurement inversion across Canada HTA research centers, reimbursement agencies and academic programs raises an obvious question: where does this inversion originate? If the same conceptual failures are observed repeatedly across institutions and jurisdictions, then the explanation cannot rest solely with individual researchers, policy analysts or decision makers. A more plausible explanation is that these failures reflect deficiencies in the educational environment that prepares future HTA practitioners. If concepts central to measurement science are absent from curriculum content, then their absence from research practice should not be surprising. This realization provides the rationale for interrogating the curriculum.

Five research centers were chosen with each having been evaluated for the presence of measurement inversion in HTA practice. These are: Toronto Health Economics and Technology Assessment Collaborative (THETA) <sup>6</sup> ; Health Technology and Policy Unit (HTPU) University of Alberta <sup>7</sup> ; Institute of Health Economics (IHE) <sup>8</sup> ; Institute for Clinical Evaluative Sciences (ICES) <sup>9</sup> ; Centre for Clinical Epidemiology and Evaluation (C2E2) University of British Columbia <sup>10</sup> .

The objective of curriculum interrogation differs from that of previous HTA knowledge-based practice assessments. Earlier interrogations focused on whether institutions recognized the requirements of representational measurement and the standards necessary for quantitative claims. Curriculum interrogation asks a different question. Are faculty, students and researchers exposed to the concepts necessary to understand and apply those standards? The focus shifts from methodological outputs to educational inputs. Rather than examining what faculty, students and researchers do, attention is directed to what they are taught and what they know.

The importance of this distinction should not be underestimated. Educational programs do not merely transmit technical skills. They define the conceptual framework through which future practitioners understand evidence, measurement and scientific inquiry. Concepts that are absent from the curriculum are unlikely to emerge spontaneously in research practice. Equally, concepts that are emphasized repeatedly become part of the intellectual assumptions that shape subsequent analysis have never been systematically incorporated into HTA teaching and research training.

For this reason, the curriculum interrogation was designed around a series of canonical statements intended to identify the presence or absence of foundational measurement concepts. These statements were deliberately elementary. The purpose was not to assess advanced methodological knowledge but to determine whether faculty, students and researchers are likely to encounter the principles that underpin lawful quantitative claims. The resulting framework begins with the concept of an attribute as the object of measurement and proceeds through target attribute specification, scales of measurement, representational measurement, unidimensionality, manifest

and latent attributes, ratio measurement and falsifiable claims. Together, these statements define the minimum intellectual foundations required for a measurement-based approach to therapy assessment in education.

These statements are:

- **An attribute is the specific outcome of interest in a therapy assessment.**
- **Every therapy assessment begins with specification of the target attribute.**
- **The principal scales of measurement (nominal, ordinal, interval and ratio) have different properties and support different forms of analysis.**
- **The measurement status of a target attribute must be established before quantitative claims can be advanced.**
- **The axioms of representational measurement underpin quantitative claims.**
- **Attributes must be demonstrated to be unidimensional before measurement is possible.**
- **A manifest attribute is directly observable and capable of supporting empirical observation.**
- **A latent attribute is not directly observable and requires a measurement model to estimate possession of the attribute.**
- **Manifest and latent attributes require different forms of ratio measurement.**
- **Therapy impact claims must be falsifiable.**

These ten statements form a logical sequence:

**Attribute → Target Attribute → Scales of Measurement → Measurement Status → Representational Measurement → Unidimensionality → Manifest Attribute → Latent Attribute → Ratio Measurement → Falsifiable Claims**

Together they define the minimum curriculum content required for a measurement-based approach to HTA and provide the framework for evaluating curriculum coverage in Canada HTA research centers.

The categorical probabilities reported in this assessment are intended as indicators of the extent to which a concept is represented within the curriculum knowledge base. They should not be interpreted as precise statistical estimates but as measures of the likelihood that a student, researcher or professional exposed to that knowledge base would encounter, recognize and subsequently endorse the canonical statement. In practical terms, the probability reflects the visibility and prominence of a concept within the educational environment associated with a research center or policy agency.

A high probability indicates that the concept is well represented within curriculum materials, research outputs and educational activities and is therefore likely to be familiar to students and researchers. Conversely, a low probability suggests that the concept is absent, only weakly represented, or occupies a peripheral position within the curriculum knowledge base. Students exposed to such an environment would therefore be unlikely to recognize the concept as an important component of HTA education and practice.

The probabilities should be viewed comparatively rather than in isolation. Their principal value lies in identifying patterns of curriculum coverage across institutions and concepts. In particular, low probabilities associated with scales of measurement, representational measurement, unidimensionality and ratio measurement indicate that these topics are unlikely to form a substantial part of the educational experience of the average student. The resulting profile provides an indication of curriculum strengths, deficiencies and potential areas for reconstruction.

## THE EXTENT OF CURRICULUM INVERSION IN CANADIAN HTA

The curriculum interrogations of five leading Canadian health technology assessment research centers, THETA, HTPU, IHE, ICES and C2E2, provide a revealing picture of the intellectual foundations upon which Canadian HTA is constructed (Table 1). Although the centers differ in institutional location, research focus and organizational history, the endorsement profiles display a remarkable degree of consistency. The similarities are far more striking than the differences. Across all five centers there is strong recognition of outcome identification and target specification, moderate recognition of observable or manifest outcomes, and limited recognition of falsifiable claims. At the same time there is consistently weak recognition of representational measurement, scale theory, unidimensionality, latent attribute measurement and the distinction between manifest and latent measurement frameworks.

**TABLE 1**

### CANADA: CURRICULUM INVERSION HTA RESEARCH CENTRES

CATEGORICAL PROBABILITIES					
CANONICAL STATEMENT	THETA	HTPU	IHE	ICES	C2E2
An attribute is the specific outcome of interest in a therapy assessment	0.75	0.80	0.80	0.80	0.80
Every therapy assessment begins with specification of the target attribute	0.65	0.75	0.75	0.75	0.75
The principal scales of measurement (nominal, ordinal, interval and ratio) have different properties and support different forms of analysis	0.20	0.20	0.20	0.20	0.20
The measurement status of a target attribute must be established before quantitative claims can be advanced	0.15	0.15	0.15	0.15	0.15
The axioms of representational measurement underpin quantitative claims	0.05	0.05	0.05	0.05	0.05
Attributes must be demonstrated to be unidimensional before measurement is possible	0.10	0.10	0.10	0.10	0.10
A manifest attribute is directly observable and capable of supporting empirical observation	0.40	0.45	0.45	0.50	0.50

A latent attribute is not directly observable and requires a measurement model to estimate possession of the attribute	0.10	0.10	0.10	0.10	0.10
Manifest and latent attributes require different forms of ratio measurement	0.05	0.05	0.05	0.05	0.05
Therapy impact claims must be falsifiable	0.65	0.70	0.70	0.75	0.70

Note: Toronto Health Economics and Technology Assessment Collaborative (THETA); Health Technology and Policy Unit (HTPU) University of Alberta; Institute of Health Economics (IHE); Institute for Clinical Evaluative Sciences (ICES); Centre for Clinical Epidemiology and Evaluation (C2E2) University of British Columbia

This pattern is not merely evidence of omissions within individual curricula. It points to the existence of a shared intellectual framework that reproduces the assumptions of contemporary HTA while largely excluding the concepts necessary to evaluate those assumptions. The result is curriculum inversion. Students and researchers are trained in the application of HTA methods while receiving little exposure to the measurement principles required to determine whether those methods support valid quantitative claims.

The strongest endorsements occur for the first two statements. Across all centers, probabilities range from 0.75 to 0.80 for the proposition that an attribute is the specific outcome of interest in a therapy assessment and from 0.65 to 0.75 for the proposition that every therapy assessment begins with specification of the target attribute. These results are unsurprising. Outcome identification and specification are fundamental components of research design. Any assessment of a technology must define the intervention, the target population and the outcomes of interest. In this respect, the Canadian centers demonstrate a clear awareness that therapy assessment requires an object of inquiry.

The difficulty is that outcome specification is not measurement. Identifying an attribute merely establishes what is to be examined. It does not establish that the attribute can be measured, nor does it establish the scale properties required to support quantitative claims. Yet the endorsement profile suggests that this distinction is largely absent from the curriculum environment. The result is a false sense of scientific completeness. Once an outcome has been identified, the curriculum appears to proceed directly to analysis, modelling and evaluation without first addressing the question of measurement.

This interpretation is reinforced by the third statement. Across all five centers, the probability that the principal scales of measurement possess different properties and support different forms of analysis is only 0.20. This is one of the most important findings in the interrogation. The distinction between nominal, ordinal, interval and ratio scales is among the most elementary concepts in measurement science. Scale properties determine which mathematical operations are admissible. Without these distinctions, there is no basis for deciding whether averaging, multiplication, division or ratio construction are scientifically legitimate.

The uniformly low endorsement of scale theory suggests that students and researchers are unlikely to encounter systematic instruction in the relationship between measurement and arithmetic. Numbers are therefore treated as though they are interchangeable. The scientific requirement that arithmetic must be constrained by measurement properties largely disappears from view.

The fourth statement reveals an even deeper problem. Across all centers, the probability that the measurement status of a target attribute must be established before quantitative claims can be advanced is only 0.15. This finding lies at the heart of curriculum inversion. In quantitative science, measurement precedes arithmetic. The properties of the quantity must be established before mathematical operations are performed. The Canadian profiles indicate that this principle is largely absent.

The implication is profound. Students may learn how to construct economic evaluations, estimate cost-effectiveness ratios and interpret simulation models without first being taught how to determine whether the quantities entering those analyses qualify as measures. Arithmetic therefore becomes detached from measurement. The result is not merely a gap in training but a reversal of scientific logic.

This reversal becomes even clearer when one considers the fifth statement. The probability that the axioms of representational measurement underpin quantitative claims is only 0.05 across all five centers. Representational measurement provides the formal framework for determining whether numerical assignments correspond to empirical attributes and which mathematical operations are admissible. It is the foundation upon which quantitative science rests.

The near absence of this concept from the curriculum profiles is extraordinary. Without representational measurement there is no principled method for distinguishing a measure from a numerical construction. Utility scores, composite indices and questionnaire totals may all appear quantitative simply because they are numerical. The burden of demonstrating measurement disappears.

The sixth statement addresses unidimensionality. Once again, the endorsement profile is uniformly low, with probabilities of only 0.10. This finding is particularly important because measurement requires that an attribute represent a single underlying dimension. Unidimensionality is not a technical refinement. It is a prerequisite for measurement. Yet the Canadian curriculum environment provides little evidence that this principle occupies a central place within HTA training.

The omission is highly consequential. Contemporary HTA relies heavily on composite instruments and multiattribute utility systems. Without demonstrating unidimensionality, there is no basis for treating these constructs as measures. The curriculum therefore supports the application of these instruments while providing little guidance regarding the conditions necessary to justify their use.

The seventh statement concerns manifest attributes. Here the endorsement probabilities rise modestly, ranging from 0.40 to 0.50. This is understandable. All five centers engage extensively with observable outcomes such as mortality, hospitalization, healthcare utilization and adverse events. These are empirical phenomena capable of direct observation and recording.

However, the moderate endorsement of manifest attributes should not be interpreted as recognition of measurement theory. The profiles indicate awareness of observable outcomes, not awareness of their measurement properties. Even directly observable attributes require appropriate scale specification before quantitative claims can be advanced. Recognition of an outcome is not equivalent to recognition of a measure.

The eighth statement addresses latent attributes. The endorsement probability falls immediately to 0.10 across all centers. This finding is one of the most significant in the entire interrogation. Many of the outcomes central to HTA such as pain, fatigue, functioning, emotional well-being and quality of life are latent attributes. They are not directly observable. They require a measurement model capable of estimating possession of the attribute.

Yet the curriculum profiles provide little evidence that latent attributes are systematically distinguished from manifest attributes. This omission removes one of the most important conceptual foundations of modern measurement science.

The ninth statement produces the lowest endorsement profile of all. The probability that manifest and latent attributes require different forms of ratio measurement is only 0.05 across every center. This finding demonstrates almost complete absence of the distinction between direct ratio measurement for manifest attributes and Rasch-based measurement for latent attributes.

This omission is decisive because it removes the possibility of understanding why different types of attributes require different measurement frameworks. Without this distinction, utility scores, event counts, composite indices and patient-reported outcomes all appear to occupy the same analytical space. The curriculum provides no basis for distinguishing between fundamentally different measurement problems.

The consequence is that Rasch measurement, despite its importance in latent variable measurement, is effectively absent from the curriculum environment. Students and researchers are therefore unlikely to encounter the only established framework capable of transforming ordinal observations into invariant measures of latent attribute possession.

The final statement concerns falsifiable claims. Here the endorsement probabilities improve, ranging from 0.65 to 0.75. This reflects the empirical orientation of Canadian HTA and health services research. Evidence-based assessment, evaluation and policy analysis all imply some recognition that claims should be testable.

Yet falsifiability cannot compensate for absent measurement. A claim cannot be meaningfully tested if the quantity entering the claim has not first been demonstrated to be a measure. The moderate endorsement of falsifiability therefore sits uneasily beside the near absence of representational measurement and ratio measurement. The curriculum appears to support testing while neglecting the conditions necessary to make testing meaningful.

## CONCLUSION

Taken together, the Canadian curriculum profiles reveal a highly coherent pattern. Outcome identification is present. Target specification is present. Evidence evaluation is present. Falsifiability is present to a moderate degree. What is absent are the concepts that transform these activities into quantitative science: representational measurement, scale theory, unidimensionality, latent attribute measurement, ratio measurement and Rasch measurement.

This pattern provides compelling evidence of curriculum inversion. The curriculum teaches the application of HTA methods while largely excluding the principles necessary to evaluate those methods. Students learn how to calculate before they learn what can legitimately be calculated. They learn how to model before they learn what qualifies as a measure. Arithmetic precedes measurement.

The consistency of the findings is perhaps their most striking feature. Each center was interrogated independently using its own knowledge base. Yet all five produced remarkably similar endorsement profiles. This suggests the presence of a common Canadian HTA curriculum culture. The issue is not an isolated institutional deficiency but a shared intellectual framework.

The implications are unavoidable. The Canadian HTA curriculum environment reproduces the assumptions of the reference-case paradigm while providing little opportunity to examine their scientific legitimacy. The result is a professional culture in which measurement is assumed rather than demonstrated and arithmetic is accepted as a substitute for measurement.

Viewed in this context, curriculum inversion becomes one of the principal mechanisms through which paradigm failure is sustained. The reference case survives not because its foundations have been validated, but because the concepts required to challenge those foundations are largely absent from the curriculum itself. Reconstruction of Canadian HTA must therefore begin with reconstruction of the curriculum. Until measurement science occupies its proper place within professional education, the conditions that produced measurement inversion will continue to reproduce themselves in research, policy and practice.

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