|  |  |  |
| --- | --- | --- |
| C:\Users\CESA\Downloads\image002.jpg | **COMMERCIAL EDUCATION SOCIETY OF AUSTRALIA****PERIODIC DISCUSSION PAPER No.57[[1]](#footnote-1)\*** | **December****2023** |

**RECONSIDERING, REPOSITIONING, REACTIVATING SCHOLARSHIP**

**Emeritus Professor Tony Shannon *AM***

**Introduction:**

Most professional people take sufficient pride in their work to want to keep developing in their professions. Many professions require ongoing development in order for members to retain their registration. Government approved regulators of higher education in many reputable jurisdictions round the world require continuing professional development of all staff. They also insist on scholarly activity which informs the teaching of academic staff. These requirements can often be honoured in their breach, especially with sessional staff who work in more than one higher education institute.

For such staff, there are a number of pressures which conspire to prevent time for scholarly activity. Some examples are preparation of class material to suit the learning outcomes of a subject in each institution, the follow-up marking of student work and being ‘always available’ for students’ questions via email. We shall consider three aspects of this issue here, namely:

* Types of causality;
* Vander Weele’s quantitative social science;
* Boyer’s model of scholarship

To realistically revive professional prestige, one needs a realistic strategy:

* Two hours on three days per week?
* Higher education book reviews for colleagues?
* Micro-credentials?
* Adult education efficient reading and writing courses?
* Enrolling in a Graduate Certificate?
* Internal discussion papers?
* External professional society contributions?

One of the reasons that the Royal Canadian Air Force 5BX and XBX exercise programs have survived for more than half a century is that they are realistic: only eleven minutes on three days per week: “wising is not good enough”![[2]](#endnote-1). This is realistic, whereas seven days per week, or even five, is not. Fitness gymnasia can make money from those who drop out when they get discouraged. Any plan that is developed needs to be adapted to suit one’s personal and professional circumstances, while being achievable with some self-discipline.

**Causality**

This leads to quantitative social science which carefully, perhaps cunningly, accounts for many confounding latent variables, which can be so frustrating in the scholarship of teaching. There is a sense in which it builds on the Aristotelian distinctions of cause and effect which transcend the popular caricatures. Cause and effect are often confused, even by scientists, particularly through ignorance of Aristotle’s four causes, which differ in kind as well as in effect.

Figure 1: Types of causality[[3]](#endnote-2)

|  |  |  |  |
| --- | --- | --- | --- |
|  |  | Material | is that from which. and in which, something acts |
|  | Intrinsic |  |  |
|  |  | Formal  | is that which determines the change |
|  |  |  |  |
| **CAUSALITY**  |  |  | is the Principal (agent): e.g., the student |
|  |  | Efficient |  |
|  |  |  | is the Instrumental (agent): e.g., the teacher |
|  | Extrinsic |  |  |
|  |  |  |  |
|  |  | Final | is that which motivates or sets a goal for the agent(s) |

This quick summary is included to alert the reader to the finer distinctions, which are particularly important when trying to examine the models of Tyler Vander Weele and the distinctions of Ernest Boyer. They do also have wider importance, such as in making distinctions in mathematics (formal causality) and physics (efficient causality).

**The Boyer Model of Scholarship**

Scholarship Reconsidered: Priorities of the Professoriate by [Ernest L. Boyer](https://www.amazon.com.au/s/ref%3Ddp_byline_sr_ebooks_1?ie=UTF8&text=Ernest+L.+Boyer&search-alias=digital-text&field-author=Ernest+L.+Boyer&sort=relevancerank)[[4]](#endnote-3) was updated and expanded in 2016[[5]](#endnote-4). The purpose of this review is to outline how the Boyer model of scholarship can permeate an academy with a focus on the quality of learning (Table 1).

Table 1: Outline of Boyer[[6]](#endnote-5)

|  |
| --- |
| **Chapter 1**: “The Origins of *Scholarship Reconsidered*” by Drew Moser and Todd C Ream:* Context, image, development and key individuals
 |
| **Chapter 2:** “Boyer’s Impact on Faculty Development” by Andrea L Beach:* Emergence of scholarship of teaching and learning
 |
| **Chapter 3**: “The Influence of *Scholarship Reconsidered* on Institutional Types and Academic Disciplines by John M Braxton:* How institutions have embraced the four domains
 |
| **Chapter 4**: “*Scholarship Reconsidered*’s Impact on Doctoral and Professional Education” by Anne E Austin and Melissa McDaniels* Relevance to doctoral education & modes of learning
 |
| **Chapter 5**: “How *Scholarship Reconsidered* disruptured the promotion and tenure system” by KerryAnn O’Meara* New language for promotion and tenure
 |

It is, in a very real sense, a twenty first century application of Newman’s nineteenth century idea of a university[[7]](#endnote-6) in that both consider the nexus between scholarship and teaching, although Boyer also elaborated on the links between scholarship and research: which is the chicken, and which is the egg? Thinking to learn, learning to think and learning how to express thoughts are all part of the fundamental educational background to the rapidly changing employment landscape of the twenty-first century. Part of the expression of thinking is to give reasons and provide evidence to support assertions. In my experience of examining research dissertations and theses and acting as a journal referee, too much so-called academic writing is more like journalism, where unfounded allegations and exaggerated claims abound, leading to the dilution of genuine achievement.

So, what is this thing called “scholarship”? Boyer’s approach to scholarship has become a benchmark for those institutions which plan to be teaching-intensive higher education providers in which scholarly activity informs teaching. Boyer disputed the assumed cause-and-effect of scholarship on teaching:

Figure 2: Chain of causality?

|  |  |  |
| --- | --- | --- |
|  | **research ⇒ publication ⇒ application ⇒ teaching** |  |

For Boyer, the arrow of causality can, and frequently does, point in both directions. Theory surely leads to practice. But practice also leads to theory. Teaching, at its best, shapes both research and practice. This is at the heart of the Boyer model. We can see this in Table 2.

Table 2: Boyer’s Scholarly Criteria

|  |  |  |
| --- | --- | --- |
| **Type of Scholarship** | **Purpose** | **Examples of Measures of Performance** |
| Discovery | Build new knowledge through traditional research.  | * Publishing in peer-reviewed forums
* Producing and/or performing creative work within established field
* Museum exhibit
* Creating infrastructure for future studies
 |
| Integration | Interpret the use of [knowledge](http://www.pcrest.com/PC/FGB/glossary.htm#Knowledge) across disciplines.  | * Preparing a comprehensive literature review
* Writing a textbook for use in multiple disciplines
* Collaborating with colleagues to design and deliver a core course
 |
| Application | Aid society and professions in addressing problems.  | * Serving industry or government as an external consultant
* Assuming leadership roles in professional organizations
* Advising student leaders, thereby fostering their professional growth
* Technical report, study, presentation, pamphlet, survey, building a prototype, developing a methodology or protocol, a significant speech
 |
| Teaching  | Study teaching models and practices to achieve optimal learning.  | * Advancing learning theory through classroom [research](http://www.pcrest.com/PC/FGB/glossary.htm#Research)
* Developing and testing instructional materials or new teaching methods
* Developing on-line materials, running a wiki or blog
* Mentoring postgraduate students
* Designing and implementing a program-level assessment system
* A funded teaching or training initiative
* Contribution to accreditation or quality systems and documentation
 |

The place of scholarship in a higher education provider relates to the minimisation of strategic risks. While risk management policies usually try to take into account preventable risks and external risks, scholarly activity is among those risks often taken for short term gains. It is a risk because it must be funded, but it can impact cost-effectively if the resource allocation is appropriate[[8]](#endnote-7). Furthermore, as we are in an environment that requires more and more reporting of measures, particularly quantitative data, we also need to consider how we measure scholarship, and to what extent such measures have meaning.

If we are serious about measuring teaching quality at university, where is the metric for qualified educators? Most agree that it is both important and worthwhile to assess teaching but there has been some criticism that the proposals are a poor measure of the quality of actual teaching, or indeed learning.

**Quantitative Social Science**

Scholars who work in fields where randomised trials are not realistically appropriate, are not able to utilise some of the classic quantitative tools. However, there is still the need to search for techniques to illustrate their research designs and methods to validate their findings among their peers. In a paper by Tyler [VanderWeele](https://pubmed.ncbi.nlm.nih.gov/?term=VanderWeele+TJ&cauthor_id=36818188) of Harvard and [Stijn Vansteelandt](https://pubmed.ncbi.nlm.nih.gov/?term=Vansteelandt+S&cauthor_id=36818188) of Ghent University[[9]](#endnote-8), the authors show that common structural assumptions have empirically testable implications, even though the latent variable itself is unobserved. Through a series of carefully enunciated theorems, they develop a series of 10 tests which are listed in Table 3.

Table 3: Latent factor modelling

|  |  |
| --- | --- |
| **TJVW No.** | **Summary title of model** |
| 1 | Basic latent factor model with latent ***η*** and indicators **(*X*1,…,*Xd*)** |
| 2(a) | Structural latent factor model |
| 2(b) | Basic latent factor model with indicators **(*X*1,…,*Xd*)** causally efficacious for outcome ***Y*** |
| 3(a) | Structural latent factor model with latent **η** causally affected by treatment **T** |
| 3(b) | Basic latent factor model with indicators **(*X*1,…,*Xd*)** directly causally affected by treatment **T** |
| 4 | Causal effect of latent **η** on outcome **Y** confounded by covariates **C**, but the structural interpretation still requiring indicators **(*X*1,…,*Xd*)** independent of **Y** conditional on **η** |
| 5 | Structural latent factor model with Z neither affecting, nor affected, by latent **η**, but the structural interpretation still requiring indicators**(*X*1,…,*Xd*)** independent of **Z** conditional on **η**  |
| 6(a) | Basic latent factor model for **η** with only one single indicator **X1**; or |
| 6(b) | One single subsequent latent **η1**, causally efficacious for outcome **Y** |
| 7 | Basic latent factor model for **η** with treatment **T** directly affecting indicators **X1**and **X2,** and thereby altering the factor structure. |

Each of these accompanies a clear and simple diagram which is apt for its purpose. Copyright issues are one reason for not reproducing these diagrams here, but a more important reason is the original goal of this note which is to draw the reader’s attention to the actual work of Professor VanderWeele so that the reader goes to the original literature.

**Concluding comments**

‘Boyer Mark I’ had an impact on tenure and promotion in many colleges and universities in the USA, in that it affected the reward structure. It forced many institutions to review elite notions of university research and competitive individualism with the subsequent loss of serendipitous discoveries and discouragement of curiosity-driven research. ‘Boyer Mark II’ tries to untangle the causes and effects. In particular, it emphasizes that institutions must be faithful to their mission and vision, rather than “isomorphic to Harvard” which is a sure way to lose individual distinctiveness.

Competitive rankings of universities cannot measure everything in the mosaic of talent required in a teaching intensive higher education institution. The Times Higher Education (mock TEF) rankings has placed Loughborough number 1 in teaching and number 38 in research whereas Oxford University featured as number 1 in research and number 28 in teaching in the UK[[10]](#endnote-9). As Professor Merlin Crossley of the University of New South Wales says: “to ignore the rankings, or deny their impact is a mistake. Definitely consider the data”[[11]](#endnote-10). The key to Boyer is the understanding that there are multiple ways of measuring data and multiple models for defining otherwise unmeasurable success such as

* public engagement,
* the focus on the undergraduate experience,
* accessibility of staff for students, and so on.

Thus, even sitting for two hours in a coffee shop helping a student discern career options can contribute to an institution’s goals. However, the over-reliance on the relatively intangible does not sit well with accountants and regulators. Nelson refers to “the case for conformity – or institutional ‘convergence’” so that regulators can “read from a common script when it comes to knowledge policies and institutional models – the stage for institutional isomorphism in global higher education”[[12]](#endnote-11). Those polled in a survey of Information Systems academics believed that the ranking systems inhibit innovative, risky research, and encourage safe, conforming, mainstream research, though the quality of published research had improved[[13]](#endnote-12).

Even graduate destination surveys by their very nature overlook the liberal virtues of education *per se*. Boyer Mark II points out, in the context of US education, how the Land Grant (Morrill Act) of 1862 aimed to support education in the liberal arts as well as training in the skills needed by society. The focus in higher education has drifted from general to specialized education, yet the value of a broadly defined liberal education in the arts in general, or the creative and performing arts in particular, can lay the foundation for a vocationally relevant education in any field.

An institution has to remain true to its own values, usually enshrined in its mission, vision and objectives: the reasons for its existence. However, the context in which it achieves the communication of these values is often the Achilles heel of a higher education provider. The chain of communication is different from, but complementary to, the chain of command. The former is informal, whereas the latter is formal. The two chains must work in harmony, shaped and sharpened by the institution’s operational units in the context of the mission and vision. Just as ambiguity and indecision cause casualties in battle, so too can they disrupt and thwart in any organisation. Academics, like soldiers, do not wish to waste their lives and the lives of those whom they serve, under inept commander, whether within institutions or at the behest of governments or affiliated regulatory authorities. There should be no confusion of communication in this context between the process of management and the art of leadership.

Regulators, both internal and external, place importance on data collection and reporting. As Davis puts it: “With Australia’s universities now virtually rid of the “Newmanesque” spirit that made them great, true scholarship has become a guerrilla art”![[14]](#endnote-13) The positive response is that the niches abound for those higher education providers with vision to go beyond the restrictions of the reporting required by the Regulators. Some of it is meaningless. For example, if it is trying to measure completion rates when students have enrolled in some subjects out of interest. Similarly, measuring graduate destinations for those who completed a degree merely to be better educated! Some measures are also statistically meaningless, because they do not account for standard errors with variations in size or utilise parametric statistics when distribution-free measures are more appropriate.

Nevertheless, measurement of Scholarship within a ‘teaching-intensive’ higher education provider can include:

* *qualitative* measures such as
* changes in attitudes (more enthusiasm) of teachers and students,
* sharing of ideas among staff,
* increased esprit de corps,
* broadening the range of appropriate teaching techniques, and
* constructive relations with regulators, and
* *quantitative* measures associated with
* student satisfaction questionnaires,
* feedback from stakeholders,
* graduate destinations,
* improved pass, retention and completion rates,
* exploratory data analysis techniques, and so on.

Ultimately, the interpretation and meaning of the data depend more specifically on the mission, vision and objectives of the provider. While attitudinal changes can be quantitatively measured, it is not suggested here that this be generally attempted, since scholarly attitudes vary with the personality of the scholar, the field of discourse and the culture of the provider.

**References& further related readings**

Boyer, E. L. 1997. *Scholarship Reconsidered: Priorities of the Professoriate*. San Francisco: Jossey-Bass.

Boyer, Ernest L. 2016. *Scholarship Reconsidered: Priorities of the Professoriate*. [Updated and Expanded by Drew Moser, Todd C Ream, John M Braxton and Associates.] The Carnegie Foundation for the Advancement of Teaching. San Francisco, CA: Jossey Bass.

Newman, John Henry (author), Frank M Turner (editor). 1996. *The Idea of a University*. (Other contributors: Martha McMackin Garland, Sara Castro-Klarén, George P Landow, Georeg M Marsden.) New Haven and London: Yale University Press.

Jones, Stephen L. 2017. A different perspective of the teaching philosophy of RL Moore. *International Journal of Mathematical Education in Science and Technology.* 48 (2): 300-306.

Larcombe, Peter. 2017. Overpraise is everywhere, and universities are not immune. <https://www.timeshighereducation.com/blog/overpraise-everywhere-and-universities-are-not-immune>**.**

Kaplan, Robert S., Anette Mikes. 2012. Managing Risks: A new Framework. *Harvard Business Review.* 90 (6): 49-60.

VanderWeele, Tyler J. Vansteelandt, Stijn. 2022. A Statistical Test to Reject the Structural interpretation of a Latent Factor Model. *Journal of the Royal Statistical Society Series B: Statistical Methodology*. 84(5): 2032–2054. <https://doi.org/10.1111/rssb.12555>

Hannant, Ruth, Polly Payne. 2016. *Teaching Excellence Framework Funding*. Bristol: Department for Business Innovation and Skills. <http://uniteachingcriteria.edu.au/>.

Trigwell, K., E. Martin, J. Benjamin, M. Prosser. 2000. Scholarship of Teaching: A Model. *Highe*r *Education Research and Development*. 19: 155-168.

University of Queensland. 2007. *Working Party on the Diversity of Academic Roles*. St Lucia: UQ.

Soh, Kaycheng. 2017. The seven deadly sins of of world university ranking: a summary from several papers. *Journal of Higher Education Policy and Management*. 39 (1): 104-115.

Munro, Kelsey. 2016. Universities clamour for top rank. *The Sydney Morning Herald*. 29 August, p.11.

Sotirova, Evdokia, A.G. Shannon. 2015. Application of InterCriteria Decision Making to the rankings of Australian universities. *Notes on Intuitionistic Fuzzy Sets*. 21 (4): 136-142.

Nelson, Adam R., Ian P. Wei (eds). 2012. *The Global University: Past, Present and Future Perspectives*. New York: Palgrave Macmillan, pp,6,7.

Coulthard, Darryl, Susan Keller. 2016. Publication anxiety, quality, and journal rankings: researcher views. *Australasian Journal of Information Systems.* Volume 20: [<http://dx.doi.org/10.3127/ajis.v20i0.1262>].

Taylor, Jerry. 2001. *Last Out: 4RAR(NZ) (ANZAC) Battalion’s Second Tour in Vietnam.* Crows Nest, NSW: Allen & Unwin, pp.36-40.

Davis, Michael Warren. 2016. Voices in the Darkness. *Quadrant*. 60 (12): 67-69.

Shannon, A.G., B.E. Clark. 1979. Mathematical Attitudes of Some Polytechnic Students. *British Journal of Educational Technology*. 10: 59-68.

Glassick, Charles E.; Mary Taylor Huber, Gene I. Maeroff. 1997. *Scholarship Assessed: Evaluation of the Professoriate.* San Francisco: Jossey-Bass.

Pelikan, Jaroslav. 1992. *The Idea of a University: A Reexamination*. New Haven and London: Yale University Press.

Zimmerman, Linda. 1998. The Long Shadow of Cardinal Newman: New Ideas on the University. *Stanford Electronic Humanities Review*. 6(1): review 5.

Trigwell, Keith, Tony Shannon, Russell Maurizi. 1997. *Research-coursework Doctoral Programs in Australian Universities.* Canberra, ACT: Australian Government Publishing Service.

Shannon, Anthony G., Beloslva Riecan, Evdokia Sotirova, Krassimr Atanassov, Maciej Krawczak, Pedro Melo-Minto, Rangasamy Parvathi, Taekyun Kim. 2017. Generalized net models of promotion and doctoral candidature. In Vassil Sgurev, Ronald R. Yager, Janusz Kacprzyk, Krassimir T Atanassov (eds), *Recent Contributions in Intelligent Systems*. Switzerland: Springer, pp.263- 277.

Coates, Hamish. 2016. *The Market for Learning: Leading Transparent Higher Education*. Singapore: Springer, pp.35,165.

1. **\* These papers are for internal discussion within CESA on topics related to the CESA Mission.** [↑](#footnote-ref-1)
2. RCAF. 1965. *5BX Plan for Physical Fitness.* Ottawa: Royal Canadian Air Force Pamphlet 30/1. [↑](#endnote-ref-1)
3. Smith, Vincent Edward. 1960. *The School Examined: Its Aim and Content.* Milwaukee, WI: Bruce. [↑](#endnote-ref-2)
4. Boyer, E. L. 1997. *Scholarship Reconsidered: Priorities of the Professoriate*. San Francisco: Jossey-Bass. [↑](#endnote-ref-3)
5. Boyer, Ernest L. 2016. *Scholarship Reconsidered: Priorities of the Professoriate*. [Updated and Expanded by Drew Moser, Todd C Ream, John M Braxton and Associates.] The Carnegie Foundation for the Advancement of Teaching. San Francisco, CA: Jossey Bass. [↑](#endnote-ref-4)
6. Boyer, Ernest L. 2016. *Scholarship Reconsidered: Priorities of the Professoriate*. [Updated and Expanded by Drew Moser, Todd C Ream, John M Braxton and Associates.] The Carnegie Foundation for the Advancement of Teaching. San Francisco, CA: Jossey Bass. [↑](#endnote-ref-5)
7. Newman, John Henry (author), Frank M Turner (editor). 1996. *The Idea of a University*. (Other contributors: Martha McMackin Garland, Sara Castro-Klarén, George P Landow, Georeg M Marsden.) New Haven and London: Yale University Press. [↑](#endnote-ref-6)
8. Kaplan, Robert S., Anette Mikes. 2012. Managing Risks: A new Framework. *Harvard Business Review.* 90 (6): 49-60. [↑](#endnote-ref-7)
9. VanderWeele, Tyler J. Vansteelandt, Stijn. 2022. A Statistical Test to Reject the Structural interpretation of a Latent Factor Model. *Journal of the Royal Statistical Society Series B: Statistical Methodology*. 84(5): 2032–2054. https://doi.org/10.1111/rssb.12555 [↑](#endnote-ref-8)
10. Times Higher Education Rankings https://www.timeshighereducation.com/world-university-rankings [↑](#endnote-ref-9)
11. Munro, K. 2016. Making sense of university rankings. *The Sydney Morning Herald.* https://www.smh.com.au/education/making-sense-of-university-rankings-20160827-gr2kjs.html [↑](#endnote-ref-10)
12. Nelson, Adam R., Ian P. Wei (eds). 2012. *The Global University: Past, Present and Future Perspectives*. New York: Palgrave Macmillan, pp,6,7. [↑](#endnote-ref-11)
13. Coulthard, Darryl, Susan Keller. 2016. Publication anxiety, quality, and journal rankings: researcher views. *Australasian Journal of Information Systems.* Volume 20: [<http://dx.doi.org/10.3127/ajis.v20i0.1262>]. [↑](#endnote-ref-12)
14. Davis, Michael Warren. 2016. Voices in the Darkness. *Quadrant*. 60 (12): 67-69. [↑](#endnote-ref-13)