



SCHOOL OF OPTOMETRY & VISION SCIENCE
 519-888-4567, ext. 33178
 optometry.uwaterloo.ca

January 7, 2022

Dear Dr. Chou,

We read with great interest the letter to the editor provided by Dr. Jill Bryant and Dr. Brook Houck of the National Board of Examiners of Optometry (NBEO) regarding our paper *Applicability of Entry to Practice Examinations for Optometry in Canada*.

We wish to say that we have a tremendous amount of respect for the work of the NBEO in fulfilling their mission to “serve the public and the profession of optometry by developing, administering, scoring, and reporting results of valid examinations that assess competence.” As we note in our conclusions to the paper, the NBEO fulfils this mission very well for the US jurisdiction.

However, it is important to examine the contextual differences between Canada and the US. If we look, for example, at cultural humility and competence in response to the call to action for health care and Indigenous Peoples by the Truth and Reconciliation Commission, there are clearly different areas of emphasis and leadership in Canada as compared to the US.

With respect to validity in the analysis we conducted, there is a robust literature for medical education reflecting the constructs of validity and reliability. In this paper we chose to structure our analysis around Norcini’s criterion for good assessment developed in 2010 and then updated in 2018.¹ A system of good assessment is needed to have results that can be used for high stakes summative assessment such as minimal competency establishing suitability for practice. We also used Kane’s assessment theory² for establishing the validity of the assessment. Kane’s theory includes reliability, and we did not criticize the methods used by each organization but simply reported them. By applying the components of Kane’s theory of validity and assessing the scoring, generalization, extrapolation and implications, there is an establishment of validity of the examination process in the Canadian context. This is not at the expense of criterion validity and content validity which are embedded into the construct. For the OEBC, the competencies of an entry-level practitioner were developed and validated through a survey of all optometrists practicing in Canada and this serves as face validity for the OEBC assessment.

The authors are correct that we did not, for either the OEBC or NBEO, drill down to the nationalities of the contributing subject matter experts (SMEs). We were unable to locate any such publicly available information that indicated this information for either organization. Rather, we anticipated that the SMEs would be operating with familiarity (either as academics or licensed optometrists) of the US context *regardless* of their nationality. This appears to be supported by the NBEO website that indicates that SMEs must be licensed in the US to be eligible,³ much in the same way as US trained optometrists who are practitioners or academics licensed in Canada can engage in the OEBC process.⁴ It seems unlikely that either organization would tailor their examination to address contextual aspects outside of their jurisdiction, some of which may not be applicable to a larger proportion of the candidates challenging the examination.

The authors acknowledge, and did not attempt to conceal, that the project was funded by FORAC as indicated in the acknowledgements section of the paper. To maintain arm’s length from the funding body, the paper was researched and developed without consultation with FORAC, and there was no specification for the required outcome of the work. A report of this work was presented to FORAC prior to publication and the conclusions in the report were unchanged from what is included in this paper. It should also be noted that FORAC includes leaders of regulatory bodies that accept the NBEO, so the ‘inherent confirmation bias’ - if it were present - is not the singular outcome that perhaps the letter authors suppose. As we note in the discussion section on ‘Acceptability’ this has been a broadly contentious issue within the profession in Canada. Lastly, the authors of the letter perhaps have a similar, if not greater, difficulty than the authors of the paper as they are employees of the NBEO.

We recognize that there is an ongoing development process in high stakes examination and we resourced our data, for both the OEBC and NBEO organizations, from the publicly available information and the published literature. In accordance, the data referenced in Table 4 reflects this publicly available information at the time of writing.


Any paper written is limited somewhat to the date of writing, as the process to have a paper reviewed and then published can be lengthy. There have been changes to the OEBC and NBEO that have occurred since the writing of this paper, but they do not negate the body of conclusions drawn in the paper.

Respectfully, therefore, we stand by our conclusion that the NBEO is not an appropriate entry-to-practice assessment for Canada.

Sincerely,



Stanley Woo, OD, MSc, MBA, FAAO Director



Patricia Hrynchak, OD, MScCH(HPTE), FAAO, DipOE



Natalie Hutchings, MCOptom, PhD



-
1. Norcini J, Anderson MB, Bollela V, et al. 2018 Consensus framework for good assessment. 578 *Med Teach*. 2019;40(11):1102-1109.
 2. Kane MT. Validating the Interpretations and Uses of Test Scores. *J Educ Meas*. 58(2013;50(1):173.
 3. NBEO Subject Matter Experts <https://nbeo.optometry.org/sme>
 4. OEBC Subject Matter Experts <https://oebc.ca/volunteering/volunteer-with-oebc/>