

Issues with the Adaptation and Translation of the NCLEX-RN®

**For Administration to Graduates of
Canadian Baccalaureate Programs of Nursing**

**Canadian Association of Schools of Nursing/L'Association Canadienne des
écoles de Sciences infirmières**

December 20, 2015

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The NCLEX-RN® examination, developed and administered in the United States to license registered nurses, was introduced in ten jurisdictions in Canada in January 2015. As three of these provinces have francophone schools of nursing, two language versions of this examination were required for the adaptation of the NCLEX-RN® to Canadian jurisdictions. The International Test Commission (ITC) Guidelines (2005) provide a frame of reference for adapting and translating tests originally developed in a particular national context and language for use in another national context and/or in other languages. According to the National Council of State Boards of Nursing (NCSBN), the translation process of the NCLEX-RN® followed these international guidelines.

There have been multiple complaints from Francophone candidates about the quality of the translation, and considerably higher failure rates among Francophones than among Anglophones. As a result, an assessment of the adaptation and translation processes against the ITC guidelines was conducted. It reveals significant issues with the use of the NCLEX-RN® as the registration exam for both Anglophones and Francophones RNs in Canada. The validity of the French language version of the examination is particularly problematic because the adaptation not only failed to identify important cross-national contextual and cultural differences but adds significant linguistic issues, further compounding problems for francophone examination takers.

The ITC guidelines target context, test development and adaptation, administration, and documentation/score interpretation. Although there may be additional issues, **this analysis focuses on selected guidelines related to context and to test development and adaptation.**

ITC Context Guidelines

Guideline C.2 states: The amount of overlap in the construct measured by the test or instrument in the population of interest should be assessed.

Hambleton (2012), a leader in the field of ITC Guidelines, stresses that because differences between cultural and language groups involve differences in worldviews and in interpretations, what the test is measuring may be understood differently. This must be assessed *prior to adapting and translating* a high stakes licensing examination.

NCSBN asserts that this assessment was carried out using the following steps:

a) comparing the activities in the NCLEX-RN® test plan against the Canadian entry-to-practice competencies (which are required by regulatory bodies in Canada for entry to practice); and,

b) conducting what they refer to as a practice analysis among new Canadian graduates, and comparing the results with a similar analysis among new nursing graduates in the United States.

They state that the findings demonstrated that the practice was similar in the two countries, and validated the use of the NCLEX-RN® in Canada. A replication of the first and an analysis of the second assessment conducted by NCSBN, however, do not support this conclusion.

- **Non-equivalence of Entry-to-Practice Competencies and Test Plan Activities.** The reported similarity between the Canadian entry-to-practice competencies and the NCLEX-RN® test plan is contradicted by the results of a careful content analysis conducted by CASN/ACESI. This revealed that *almost two thirds of Canadian competencies are either not addressed at all or only partially addressed* in the test plan; moreover, *many that are addressed are conceptualized and interpreted differently in the Canadian context*; others that are addressed are stated broadly, in general terms in the Canadian competencies whereas their corresponding NCLEX-RN® test plan activities are numerous, specific, and highly prescriptive tasks (See [Comparison of the Canadian Entry-Level Competencies and the NCLEX-RN® Detailed Test Plan](#), CASN, 2015a).
- **Non-equivalence in the Interpretation of Practice Analysis Activities.** The NCSBN practice analysis involves a survey among new graduates who are asked to determine how frequently they perform each of a list of nursing activities, and how important they rate each of these activities to be. While the findings were similar for both groups, there are major issues with this assessment.
 - Less than a fifth of Canadian new graduates responded to the survey (17.7%);
 - The survey was conducted in 2013, but the Canadian graduates who wrote the exam did so in 2015. A practice analysis survey conducted in 2014, not only found greater differences between American and Canadian graduates but also found that Canadians' practice had changed within the year.
 - The survey itself defines the scope and the range of activities to be assessed and is, therefore, restricted to what NCSBN included on it. There may well be Canadian nursing practices that are not being assessed, with no space for respondents to indicate this. The differences between the entry-to-practice competencies and the test plan would suggest this might well be the case.
 - *Most importantly, many of the nursing activities that were compared are understood and carried out differently cross-nationally.* NCSBN failed to assess the meaning and interpretation of these activities in the Canadian context. For some activities surveyed, differences in interpretation arise

because Canadian graduates have integrated a different theoretical or conceptual perspective that guides their performance of the activity compared with their counterparts in the U.S. (e.g., different perspectives related to culture and cultural diversity). For others, it is because the activity is interpreted and carried out based on jurisdictional legislation, policies, guidelines, etc. which differ cross-nationally.

To illustrate the last issue, the practice analysis notes, for example, that U.S graduates spent an average of 5.68 hours, compared with an average of 6.12 among Canadian graduates, performing and directing activities that “manage client care within the health care delivery setting”. Although the amount of time spent on these activities is equivalent, many activities, such as advance directives, delegation, legal rights and responsibilities, and informed consent regarding organ donation, are based on non-equivalent jurisdictional legislation, policy, guidelines, and so forth (See [NCLEX-RN® on American Examination](#), CASN, 2015b).

In summary, the cultural fit or overlap in the understandings/intrepretation of the examination’s content was inadequately assessed among both Anglophones and Francophones. The data, therefore, do not support NCSBN’s statement that the practice analysis provided the evidence needed to conclude that the NCLEX-RN® exam score “would be a precise measurement of the Canadian exam taker’s readiness to provide safe and effective practice as an entry-level RN” (NCSBN, 2014, p.3).

ITC Test Development and Adaptation Guidelines

Guideline D. 1 states: Test developers should ensure that the adaptation process takes full account of linguistic and cultural differences in the intended populations.

The expertise and experience of the translators have been identified as the most important aspect in meeting this guideline (Hambleton, 2012). They require knowledge of the language, dialects, and cultures involved (in this case, Americans, Anglophone Canadians, and Francophone Canadians living outside the province of Quebec), as well as knowledge of the content area of the examination, and of item writing. Typically, a team of translators is required to ensure complete knowledge of the languages involved and the specialized linguistic content to be translated, as well as to compare, discuss, and revise the quality of the translation.

- **Contradictory Information Regarding the Translator** There has been a considerable amount of confusion about who in fact carried out the translation. In a letter dated October 21, 2015, NCSBN states that a “Canadian company translated the examination” and this was disseminated as “a fact” by the College of Nurses of Ontario. In a letter dated November 24, 2015, however, NCSBN corrected this, stating that the translation company was the GEO Group in Wisconsin, USA, but that their “lead translator” has “lived in Quebec for twelve

years. There is no further information available regarding whether others were involved and what their background is.

- **Inadequate Translation of Domain Specific Terminology.** Regardless of whom the translator was, the process used to translate the specialized nursing terms was inadequate. While the translation of the actual examination cannot be reviewed, the translation of the detailed test plan published on the NCSBN website is unacceptably poor (NCSBN, 2012).

According to NCSBN, the translator used Termium Plus, stating that it “houses the official translations and equivalencies of *nearly all key terms* used on the exam. As such, Termium Plus is the primary and authoritative resource used by NCLEX-RN translators”.

While Termium Plus is an extensive and valuable database of the Government of Canada offering French/English equivalence for multiple terms, and the translations come from the language professionals of the Translation Bureau of the Government of Canada, it does not provide the “official” Canadian translation of terms. Furthermore, a large number of terms from the translated version of the detailed test plan that were difficult to understand were searched for in the Termium Plus database. None were found.

Some examples of the terms that were checked and found missing include:

- *procedures de sortie* for discharge procedures;
- *distorsions* for hallucinations;
- *attribuer des chambres* for client room assignment;
- *prendre en charge les clients* for manage care;
- *schema thérapeutique* for treatment regime;
- *mise en rebut de seringues* for syringe disposal.

- **Issues with the Specialised Lexicon.** A specialised lexicon is published on the NCSBN website (NCSBN, n.d.). Regarding this lexicon, NCSBN states that “due to the specificity of the nursing profession, there are occasions when no translation exists in the Termium Plus® database... As a result, a NCLEX Translation Lexicon has been developed for the purpose of item translation”.

Although the detailed test plan includes 519 statements of nursing activities, and multiple terms that are difficult to translate were not found in the Termium Plus database, this lexicon is limited to 24 terms. Surprisingly, most are terms that are similar in both languages and are relatively straightforward to translate (e.g., *cavité abdominale* for abdominal cavity; *pouls apical* for apical pulse). Several are even identical in French and English (e.g., *candidates et candidats* for candidates;

client for client; *population* for population). Moreover, a number are, in fact, in the Termium Plus database (e.g., abdominal cavity, apical pulse, client, population).

- **Inadequate cultural understandings.** The lexicon provides evidence of a lack of cultural understanding of the meaning in the source language and source culture (American) of licensed practical nurse and licensed vocational nurse. First, although they are different concepts, they are linked together and are translated as one using the term *infirmière auxiliaire*. Secondly, there is no equivalent construct in Canada for licensed vocational nurse because this regulated nursing category doesn't exist in any Canadian jurisdiction. Thirdly, as indicated in Termium Plus, licensed practical nurse (LPN), a regulated nursing category that does exist in some Canadian jurisdictions, should be translated as *infirmière auxiliaire autorisée*, and finally, Termium Plus translates *infirmière auxiliaire* as nursing assistant which would have a different scope of practice. This example highlights both the inadequate assessment of the differences in the American and Canadian contexts prior to the translation with implications for both the Anglophone and Francophone versions of the examination as well as the inadequate use of the Termium plus database.
- **Failure to meet Federal Standards for Translation Services.** Although the focus of this analysis is on the ITC guidelines that NCSBN states guided the adaptation of the examination, Canadian regulatory bodies have been informing the public that the translation of the NCLEX-RN® followed Federal Standards. This review of the lexicon and the translation of the detailed test plan indicates a failure to meet Federal Standard (CAN/CGSB-131.10-2008) 3.2.1 for Translators (Government of Canada, 2008) a) *compétence linguistique; compétence en recherche; compétence culturelle*) as well as the ITC guidelines. It also indicates a failure to meet Federal Standard 7.3.5 for the preparatory stage of a translation which includes the preparation of reference documents for the particular terminology and phraseology of the specialized domain.

Guideline D. 2states: Test developers should provide evidence that the language used in the test directions, scoring rubrics, and the items themselves are appropriate for all cultural and language populations for whom the test is intended.

Very limited evidence is provided indicating that the language used in the items (questions) is appropriate for all language populations.

- **Failure to Review Items prior to Translation.** According to the NCSBN report, a set of items meeting specific criteria were selected from the full bank of test items to be use for both the Anglophone and Francophone versions of the examination in Canada. The plan, as stated on their website, was to have Canadian panels review the items to ensure their cultural appropriateness prior

to the translation process (NCSBN, n.d.). A letter from NCSBN, dated October 21, 2015 outlining the steps taken, however, indicates that this did not happen. Instead, the review of the items was conducted in April 2015 by only the staff of eight regulatory bodies, *after* the translation was completed in English, and *after* the first administration of the examination in January 2015.

It is not clear how the regulatory body staff actually reviewed the items, whether all were assessed, and what they were looking for. NCSBN speaks of a regulatory overview. Other than some minimal terminology changes, only one item was determined to be problematic, and this was because it was not considered to be at the entry level. Clearly, at least one American specific concept on the examination, *licensed vocational nurse*, got passed this review as it was in the translator developed lexicon.

- **Limited Review and Revision of the Translation.** The review and revision of the translated items was limited to five panels of three to six Canadian bilingual nurses. NCSBN states that only items they approved were retained. Although the first panel met in September 2014, the four subsequent panels met to review the items *following the introduction of the examination* in January 2015 (*two panels met in March, 2015; two met as late as September, 2015*). Furthermore, with the forward translation method, another translator or team of translators reviews the translation against the source document or independently translates it. Revisions are then made to the translation to improve it. The Federal Standard 3.2 requires a reviewer of translated documents to meet the same qualifications required of translators. Federal Standard 8.4.3 states that the review should examine the accuracy of the translation, the terminology used, the uniformity, the tone, the readability, the style, the coherence and organization, and the grammar and spelling.
- **Lack of a Field Test.** In a high stakes examination, samples of examinees often review questions and provide feedback to enhance the quality of the translation. In addition Hambleton (2012) stresses that reviewers are never able to identify all flaws and “adapted tests need to be field tested even when optimal translation designs have been used” (p. 13). No such assessments were reported to have been carried out.

Guideline D. 4 states: Test developers should provide evidence that item content and stimulus materials are familiar to all intended populations.

Some health problems may be more prevalent in health services in the United States than in Canada, and others more prevalent in health services in Canada. Similarly, some treatment regimens or pharmaceutical products may be used more commonly in one or the other country. This will influence item writers. As all items in the 2013-based test plan were developed by Americans, this may have introduced a bias. The adaptation

process to the Canadian context does not appear to have incorporated an assessment of this.

Guideline D. 8 states: Test developers should provide information on the validity of the adapted versions of the test in the intended populations.

NCSBN states it is planning to conduct differential item functioning to assess the validity of translated items once the sample size of francophone candidates who have written the examination is large enough to allow for this. Although this cannot be conducted without a large enough sample, the NCLEX-RN® is an examination with very serious consequences for writers if they fail. Some evidence regarding the validity of the translation through a pilot test is essential before using the examination to measure whether or not a new graduate may enter practice.

Guideline D. 9 states: Test developers should provide statistical evidence of the equivalence of questions for all intended populations.

No statistical evidence of the equivalence of questions for Anglophone or Francophone Canadians has been provided.

Summary and Conclusions

The assessment of the adaptation and translation of the NCLEX-RN® against the ITC guidelines shows that the design and the process were flawed. Moreover, the translation services of the examination into French did not meet Federal Standards for translations. The issues identified have consequences for the validity of the examination in the Canadian context for both Anglophones and Francophones, but especially for francophone writers.

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