Developing a Web Site: 
A Strategy for 
Employment Integration of 
Internationally Educated Nurses

Andrea Baumann, Dina Idriss-Wheeler, 
Jennifer Blythe, Paul Rizk

In Canada and elsewhere, the case for hiring internationally educated nurses (IENs) has not been adequately made and guidance for employers is lacking. The Web site Internationally Educated Nurses: An Employer’s Guide, launched in 2012, is intended to provide health-care employers in Ontario with comprehensive information on the hiring and integration of IENs. An evaluation framework and mixed methods design were used to determine the usability of the site in relation to its goal. Convenience sampling was employed to select participants representing specified users (i.e., health-care employers). Overall evaluation of usability was positive. Participants indicated that it raised their awareness of the advantages of hiring and integrating IENs to address shortages, increase workforce diversity, and provide culturally competent care. Future projects should focus on collaboration with employers to increase the uptake of IENs.

Keywords: Canada, cooperative behaviour, culturally competent care, employer resources, international nurses, personnel selection
Résumé

La création d’un site Web : stratégie pour l’intégration à l’emploi des infirmières et infirmiers diplômés à l’étranger

Andrea Baumann, Dina Idriss-Wheeler, Jennifer Blythe, Paul Rizk


Un groupe de participants représentant des utilisateurs précis (les employeurs dans le domaine de la santé) a été constitué au moyen d’un échantillonnage de commodité. Globalement, le résultat de l’évaluation de la facilité d’utilisation du site Web s’est révélé positif. Les participants ont indiqué que le site avait contribué à mieux les sensibiliser aux avantages et à l’importance de l’embauche des IIDE pour résoudre les problèmes de pénurie, pour accroître la diversité de l’effectif et pour offrir des soins adaptés sur le plan culturel. Les projets futurs devraient être axés sur une collaboration avec les employeurs afin d’accroître l’intégration des IIDE.

Mots-clés : Canada, collaboration, soins adaptés sur le plan culturel, personnel, infirmières et infirmiers diplômés à l’étranger, embauche
In 2011 Canada had the largest proportion of foreign-born residents (20.6%) among the G8 countries (Statistics Canada, 2011). According to the 2011 Canadian Census, 20% of Canada’s total population speaks a non-official language (i.e., neither English nor French). As the most populous province in Canada, Ontario is home to 53.3% of the country’s foreign-born population, 26% of whom speak a non-official language (Statistics Canada, 2013). British Columbia, Quebec, and Alberta also have large shares of foreign-born residents.

Canada requires a health workforce able to provide care to a diverse population. Internationally educated nurses (IENs) have experience, unique ideas and knowledge, and language and communication skills. They are a valuable resource and can help build relationships in communities that have large proportions of foreign-born residents and contribute to the provision of culturally sensitive care (Li, Nie, & Li, 2014; Wahoush, 2009). However, while national immigration policies encourage the migration of educated persons, including IENs, admittance to Canada does not necessarily translate into labour market uptake or optimal employment.

Research demonstrates that employment rates are lower for university-educated immigrants than for their Canadian-born counterparts (Reitz, Curtis, & Elrick, 2014). IENs frequently settle for occupations other than those for which they are trained, resulting in skill underutilization. Their efforts to obtain employment in the health-care sector are met with various barriers, including racialization and employer reluctance (Neiterman & Bourgeault, 2015b; Spetz, Gates, & Jones, 2013; Wheeler, Foster, & Hepburn, 2014).

To increase IENs’ prospects of obtaining suitable employment, employers need to be aware of the contributions that IENs can make to the workforce. The case for hiring IENs has not been adequately made and guidance for employers is lacking. Furthermore, what little information exists is not available from any one source. In June 2012 the Web site Internationally Educated Nurses: An Employer’s Guide was launched. This innovative user-friendly resource is the first of its type in Canada. It is intended to help health-care employers prioritize IEN uptake and integration by increasing their awareness of the advantages of hiring IENs and the challenges these nurses face in entering the labour market (Ontario Hospital Association, 2011).

The Web site provides comprehensive information on hiring, recruitment, entry, and orientation, ongoing support and requirements for IENs, as well as case studies and resources (Ontario Hospital Association, 2011). The Web site project was part of the 3-year Framework for
Integrating Internationally Educated Nurses into the Healthcare Workforce initiative, funded by the Ontario Ministry of Health and Long-Term Care. Conceptually, the project was guided by an evaluation framework.

Rubrics are frequently used in Web site evaluations to measure performance. Common areas of focus include content, authority, currency, purpose, and usability. The last was of particular importance in the project. Usability is a key quality attribute in Web site design (Microsoft, 2009). Based on ISO 9241-11, released by the International Organization for Standardization in 1998, usability is the “extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use” (Dingli & Cassar, 2014, p. 1).

Effectiveness is the “accuracy and completeness with which users achieve specified goals,” efficiency is the “resources expended in relation to the accuracy and completeness with which users achieve goals,” and satisfaction is the “comfort and acceptability of use” (Matera, Rizzo, & Toffetti Carughì, 2006, p. 4). In accordance with the ISO (1998) definition, the purpose of the study was to evaluate the usability of the Web site by determining the “extent to which” its aim was achieved. The “specified users” of the site were employers and the “specified goal” was increased employer awareness.

Methods

Design

The *Internationally Educated Nurses: An Employer’s Guide* site was developed over a 3-year period (2010–13). We used empirical testing and a mixed methods design to evaluate its usability. Methods included three interactive think tank sessions prior to the launch and four field-testing workshops, semistructured telephone interviews, an electronic survey, and Google Analytics following the launch.

The interviews and surveys were conducted following the field-testing workshops and were used to obtain data on the participants’ experiences using the site, benefits of the site, and quality of the content. Participants were asked to provide general and specific feedback and recommendations for improvement. The interview questions were based on the literature and our previous research. The interviews were audio-recorded and transcribed verbatim. Responses were coded into QSR NVivo version 10.0. Texts were interpreted through thematic analysis (Boyatzis, 1998).

The survey was distributed electronically. It was designed “on the basis of the literature on usability and user satisfaction” and adapted from
a published reliable and valid tool (Elling, Lentz, & de Jong, 2007, p. 293). It included 23 items measured on a seven-point scale (strongly disagree, disagree, neutral, agree, strongly agree, not applicable). Responses were summarized using descriptive statistics. Data were analyzed using Microsoft Excel.

While Google Analytics provides various metrics, pageviews were used to determine site usage and the content most visited by users. Web traffic for each section was evaluated from June 1, 2012, to May 31, 2013. Analysis of Web traffic was conducted using R version 3.0.0 (https://www.r-project.org/).

Participants

Convenience sampling was used to select participants, who were identified in partnership with the Ontario Hospital Association (OHA) consisting of health-care employers across the province. The sample included chief/executive nursing officers and human resource (HR) managers from various hospitals and other members of the OHA. To enhance inclusivity and obtain a more panoptic view, we also included IENs, educators, regulatory body members, and representatives of agencies and organizations that facilitate IEN employment. The team selected interview and survey participants based on region, size of organization, and willingness to participate, thus ensuring wide representation.

Ethics

The project and research instruments were approved by the Hamilton Health Sciences Research Ethics Board. The study rationale was explained to all participants prior to their involvement. Informed consent was obtained. Confidentiality was assured and maintained.

Results

Table 1 provides a breakdown of the dates, locations, evaluation methods, participant categories, and number of participants. Google Analytics is discussed separately because participants were not involved in that process.

Think Tanks

Sixty-one participants attended the think tank sessions. They validated the need for the Web site and suggested modifications to improve relevancy. They also provided examples of successful IEN hiring and retention practices that could be used across health-care organizations and suggested additional activities to encourage the uptake of IENs (e.g., ori-
<table>
<thead>
<tr>
<th>Date</th>
<th>Method</th>
<th>Location</th>
<th>Participants (Number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>September 2011</td>
<td>Think tank 1</td>
<td>London</td>
<td>Employers (11) Educator (1) Agencies/organizations (2)</td>
</tr>
<tr>
<td>September 2011</td>
<td>Think tank 2</td>
<td>Toronto</td>
<td>Employers (19) Educators (4) Agencies/organizations (6)</td>
</tr>
<tr>
<td>September 2011</td>
<td>Think tank 3</td>
<td>Ottawa</td>
<td>Employers (10) Educators (5) Agencies/organizations (3)</td>
</tr>
<tr>
<td>October 2012</td>
<td>Field-testing workshop 1</td>
<td>Toronto</td>
<td>Employers (25) Educators (3) Agencies/organizations (8) Regulator (1)</td>
</tr>
<tr>
<td>October 2012</td>
<td>Field-testing workshop 2</td>
<td>Niagara</td>
<td>Employers (3) Educators (3) Agencies/organizations (2) Regulator (1)</td>
</tr>
<tr>
<td>November 2012</td>
<td>Field-testing workshop 3</td>
<td>Ottawa</td>
<td>Employers (4) Educators (2) Agencies/organizations (6) Regulators (2)</td>
</tr>
<tr>
<td>November 2012</td>
<td>Field-testing workshop 4</td>
<td>Windsor</td>
<td>Employers (3) Educators (2) Agencies/organizations (5)</td>
</tr>
<tr>
<td>January 2013</td>
<td>Telephone interviews</td>
<td>N/A</td>
<td>Employers (7) Educators (5) Agencies/organizations (4) IEN (1)</td>
</tr>
<tr>
<td>February 2013</td>
<td>Electronic survey</td>
<td>N/A</td>
<td>Employers (56)</td>
</tr>
</tbody>
</table>
entation funding). The Web site was revised accordingly and field-tested during the workshops.

**Workshops**

Seventy participants from more than 40 organizations across Ontario attended the workshops. The half-day sessions were held in areas shown by Statistics Canada (2011) to have a significant percentage of foreign-born residents. Discussion focused on the Web site and current trends and issues in the labour market, such as the need for increased workforce diversity. Strategies to recruit, retain, integrate, and mentor IENs were highlighted. Participants were asked to rate the overall value of the workshop. Ratings were as follows: good (25%), very good (50%), excellent (25%). Over 80% of participants indicated that the workshop met their objectives for attending, which included better understanding of IEN competency and how to link IEN employment initiatives to corporate objectives.

**Interviews**

Seventeen interviews were conducted. Interviewees stated that the Web site had “a great layout with great headings” and was “appealing to look at and easy to navigate.” They noted that the content was relevant, concise, and clear and indicated that they would recommend the site to others. Interviewees cited various benefits of the site, such as clarifying the rigours of entry to practice for IENs and increasing their potential for suitable employment. However, they did suggest several improvements, such as including a map of hospital hiring needs in Ontario and information on educational assessment for IENs.

**Survey**

The survey was sent to 188 potential respondents. Fifty-six valid surveys were returned, for a response rate of 30%. The most common respondents were employers (46%) in a hospital setting (41%). Close to one third of respondents (31%) were HR specialists or HR leaders. Respondents were asked to rate the utility of the Web site sections. Their responses are provided in Table 2.

Fully 84% of respondents agreed/strongly agreed that the site offered relevant content. More than 70% found the design appealing and 80% found the information easy to understand. Further, 30% indicated they used the information, strategies, and tips provided on the site and 44% reported that the site had benefited them or their organization. Examples of benefits included increased knowledge of IEN employment issues and greater awareness of the advantages of hiring IENs. Over 80% of respondents anticipated using the site in the future. Suggestions for improvement included highlighting cultural differences in practice to
Table 2  Utility of Web Site Sections

<table>
<thead>
<tr>
<th>Section</th>
<th>Utility (%)</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hiring IENs</td>
<td>79.8</td>
<td>73.4–85.1</td>
</tr>
<tr>
<td>Recruitment</td>
<td>77.1</td>
<td>70.7–82.5</td>
</tr>
<tr>
<td>Entry and Orientation</td>
<td>79.8</td>
<td>73.4–85.1</td>
</tr>
<tr>
<td>Ongoing Support</td>
<td>81.9</td>
<td>76.1–87.2</td>
</tr>
<tr>
<td>Requirements for IENs</td>
<td>81.9</td>
<td>76.1–87.2</td>
</tr>
<tr>
<td>Case Studies</td>
<td>75.0</td>
<td>68.1–80.9</td>
</tr>
<tr>
<td>Resource Centre</td>
<td>79.8</td>
<td>73.4–85.1</td>
</tr>
</tbody>
</table>

Figure 1  Local Regression (LOESS) Fit of Mean Share of Pageviews, by Section
demonstrate that IENs do not lack knowledge or skills and focusing on key areas to consider when working with IENs (e.g., documentation and team processes).

**Google Analytics**

The share of daily pageviews is the proportion of pageviews for a single section out of the total number for an entire site on a given day. Figure 1 provides the mean share of daily pageviews for each section of the site from June 2012 to May 2013. The dashed line indicates the local regression (LOESS) fit for the data. Heavy-usage days were generally associated with dissemination activities, such as e-mail blasts and announcements, which were prevalent early in the evaluation period.

The share of daily pageviews for the homepage and each section changed over time (see Table 3). The homepage share decreased by May 2013, but the share of all other sections increased. The largest absolute increases were for Case Studies (5.0%), Requirements for IENs (4.9%), and Recruitment (4.4%). Aside from a switch in position between the sections Hiring IENs and Requirements for IENs, the relative ranking of sections by share of pageviews changed little. Based on end rank, the two most accessed sections were Requirements for IENs and Hiring of IENs. The least accessed sections were Entry and Orientation and Ongoing Support.

<table>
<thead>
<tr>
<th>Table 3</th>
<th>Daily Pageview Shares for Homepage and Sections</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section</td>
<td>Share of Pageviews (%)</td>
</tr>
<tr>
<td></td>
<td>Start</td>
</tr>
<tr>
<td>Homepage</td>
<td>49.3</td>
</tr>
<tr>
<td>Hiring IENs</td>
<td>14.4</td>
</tr>
<tr>
<td>Recruitment</td>
<td>3.8</td>
</tr>
<tr>
<td>Entry and Orientation</td>
<td>2.9</td>
</tr>
<tr>
<td>Ongoing Support</td>
<td>1.0</td>
</tr>
<tr>
<td>Requirements for IENs</td>
<td>14.2</td>
</tr>
<tr>
<td>Case Studies</td>
<td>8.2</td>
</tr>
<tr>
<td>Resource Centre</td>
<td>6.0</td>
</tr>
</tbody>
</table>

*Note:* “Start” indicates the launch of the Web site on June 1, 2012. “End” indicates the end of the evaluation period on May 31, 2013.
Discussion

The Canadian Institute for Health Information (2015) recently reported that the supply of nurses nationwide has declined. Similar shortages have been noted in Australia, the United Kingdom, and the United States and are expected to intensify (American Association of Colleges of Nursing, 2014; “Nursing shortage expected to worsen,” 2015; Royal College of Nursing, 2015). To fulfill staffing requirements, Canadian health-care organizations rely on traditional sources of nursing supply: new graduates and nurses from other provinces. However, the former lack experience and the latter are usually low in numbers (Cheng, Tsai, Chang, & Liou, 2014; Twibell et al., 2012). IENs can ease the burden of shortage, improve capacity, and increase workforce diversity, thus better reflecting the patient population. It is therefore vital that employers perceive IENs as an asset to their HR complement and that impediments to the hiring and integration of IENs be removed. Based on the results of our evaluation, the Web site Internationally Educated Nurses: An Employer’s Guide enhances the employment prospects of IENs by increasing employer recognition of their skills and potential.

Involving stakeholders in the development of the site helped to ensure that it met the goal of the project and the requirements of the target audience. The US Department of Health and Human Services (2006) cites the need to solicit the input of users to determine the relevance of Web site content and usability. Furthermore, knowledge transfer is enabled by a strong relationship between those who generate knowledge and those who use it (Reardon, Lavis, & Gibson, 2006).

Many participants indicated that they first heard about the benefits of IEN employment and integration through the Web site project. During workforce integration, “nurses enter the workforce efficiently, effectively and with productive employment” (Baumann, Hunsberger, & Crear-Arsenio, 2011). The literature demonstrates that both domestically educated and internationally educated nurses who are satisfied with their jobs remain in their positions longer, which has a positive effect on patient outcomes (Ea, 2007; Tao, Ellenbecker, Wang, & Li, 2015).

As per Almeida, Fernando, and Hannif (2014), human capital theory holds that IENs, having invested in their skills and knowledge, should be able to obtain employment in the area for which they have been trained (i.e., health care). However, this view overlooks the influence of health-sector employers and professional associations in labour market uptake and integration of IENs. The Internationally Educated Nurses: Employer’s Guide site targets those who play an integral role in IEN employment and integration in Ontario. It increases the likelihood of IENs obtaining
suitable employment by bridging the gap between employers and a pool of licensed, experienced health professionals.

Overall evaluation of the Web site’s usability was positive. Participants indicated that it provided relevant and easily accessible content that raised their awareness of issues in and barriers to IEN employment and integration, many of which are cited in the literature, including discrimination, insufficient orientation for international graduates, and failure to recognize IEN capabilities (Baptiste, 2015; Neiterman & Bourgeault, 2015a; Newton, Pillay, & Higginbottom, 2012; Xiao, Willis, & Jeffers, 2014). Participants also reported using the Web site and corresponding flipbook as referral sources for hiring and integrating IENs. The flipbook, which is available through the Web site, follows the layout of each section and provides highlights of the content. Between January and May 2013, 2,755 hard copies of the flipbook were distributed to more than 1,200 organizations in Ontario.

Feedback from the think tank sessions, workshops, interviews, and survey was complemented by Web site traffic analysis. The large amount of traffic observed in association with the dissemination activities was one way to determine short-term effectiveness. Making vital information readily available to users can encourage stakeholder engagement and support decision-making and policy development (Van Eerd et al., 2011). Some participants indicated their intention to leverage the Web site content within their organizations and include IEN staffing and recruitment in strategic planning.

The decrease in homepage share towards the end of the evaluation period and the concurrent rise in the page shares of other sections indicate that users were exploring the content more deeply. The popularity of the Requirements for IENs and Hiring of IENs sections suggests that many users were in the pre-hiring stages. The Entry and Orientation and Ongoing Support sections showed little traffic. These sections focus on issues that arise after IENs join the workforce. The lack of interest in these sections may indicate that users were not ready for the latter stages of the integration process at the time of the evaluation.

Limitations

The study targeted a niche audience and a portion of the nursing stakeholders in Ontario. The number of organizations employing IENs is small, and nurses usually have to self-identify for a supervisor or manager to know they are internationally educated. We compensated for these limitations by using the think tank sessions and field-testing workshops to further explore issues related to the employment of IENs and to highlight stories of successful IEN workforce integration.
Conclusion

The multicultural profile of Canada and other countries — including Australia, the United Kingdom, and the United States — heightens the need for a diverse health-care workforce. The *Internationally Educated Nurses: An Employer’s Guide* Web site provides valuable evidence-based resources for employers interested in hiring and integrating IENs. The site addresses the issue of information being dispersed among many sources and ensures that relevant information and guidance are readily available. Although the site has been implemented in Ontario only, it has applicability in all Canadian provinces. Future projects should focus on collaboration with employers to increase the uptake of IENs. Strategies could include providing employers with benchmark models of employment, guiding them through government-funded initiatives, and linking them with a pool of work-ready IENs.

References


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