Nationally Certified Educational Diagnostician: A Credential With Value-Added Potential

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Abstract
Growing a national certification program requires systematic research to determine its impact on certificate holders and effectiveness in serving the public. Launched in 2007, the literature to date on the efficacy and value-added effect of the Nationally Certified Educational Diagnostician (NCED) credential is virtually nonexistent. Increased awareness of the educational diagnostician profession coupled with heightened job prospects, however, warrants the need for research on the NCED. The purpose of this study was to investigate whether professional practices of educational diagnosticians holding national certification differed significantly from those without national certification. Researchers administered a 24-item questionnaire to 262 educational diagnosticians which elicited self-ratings of six domains of professional practices. Analysis of variance results showed that NCED holders had significantly higher mean self-ratings than their non-NCED counterparts in the areas of leadership/policy and collaboration. Acknowledging NCED’s value-added potential, researchers offer explanations for these findings in light of related research on other national credentials, as well as limitations to the study and implications for future research.

Keywords
professional development, employment/work


The NCED joins other prominent national certification programs that directly or indirectly serve the educational needs of individuals with disabilities. These include the Certificate of Clinical Competence (CCC; American Speech-Hearing Association, ASHA, 2012a), the National Board Certified Teacher (NBCT; National Board for Professional Teaching Standards [NBPTS], 2012), the Nationally Certified Counselor (NCC; National Board for Certified Counselors [NBCC], 2012), and the Nationally Certified School Psychologist (NCSP; National Association of School Psychologists [NASP], 2012).

NCED Process
The history and development of the NCED certification program have been documented previously (see Sutton et al., 2002; 2009). In short, applicants who qualify for the NCED must meet the following requirements (NCED Board, 2012a):

- Hold an advanced degree (master’s or doctorate) in special education or related field (transcript verifies a minimum of nine credits in three areas: testing/
evaluation/assessment, curriculum/instruction, and supervised internship/practicum);
• Hold a state license in an education (non-psychology) field;
• Have a minimum of two years of teaching experience in a private/public school;
• Have a minimum of two years of assessment experience in a private/public setting;
• Provide two letters of reference affirming competency in special education assessment;
• Hold membership in CEDS of CEC;
• Earn a passing score on the NCED examination.

The NCED exam includes 100 items, including case study applications, which reflect the spectrum of assessment knowledge and skills corresponding to six CEC professional standards adopted by the NCED Board (2012b; see Table 2). Earning the passing score on the NCED exam ensures the NCED Board that certificate holders possess the necessary competencies for practice as advanced-level special education assessment professionals.

Value-Added: The NBCT

Few would disagree that growing a national certification program necessitates systematic research to determine its impact on certificate holders and efficacy in serving the public. For example, recent research on the NBCT credential has received unusual national attention, particularly as it pertains to the value-added education of learners. Value-added is a term that has become part of the measurement process used to determine student growth and achievement related to teachers and their effectiveness through classroom instruction (Cavalluzzo, 2004; Daley & Kim, 2010; Hershberg, 2004, 2005; Lowrey, 2012). Initial studies found benefits in terms of positive outcomes for students who were taught by teachers holding the NBCT (e.g., Cunningham & Stone, 2005; Drury & Doran, 2003; Goldhaber & Anthony, 2007; Vandevoort, Amrein-Beardsley, & Berlinger, 2004).

In contrast, Podgursky (2001) questioned the advantages of the NBCT credential which was essentially described as paltry when compared with larger samples using more sophisticated data analysis. With a database that tracked teaching outcomes over a 4-year period, Harris and Sass (2009) examined the relation between teachers holding the NBCT and student achievement. Results indicated positive outcomes in only a minor number of cases. In another study conducted by Harris and Sass (2011), the value of the NBCT credential was evaluated in relation to those who applied for certification and those who did not apply. A positive value-added factor was established for those who did apply for the NBCT, with recommendations that more data be collected earlier in teachers’ careers to establish the validity of the comparison.

Value-Added: Other Credentials

Value-added for educators holding the NBCT focuses on the direct impact of effective instruction on student growth and achievement. But the concept of value-added for related service professionals holding other credentials has to do with the quality of their respective service (e.g., speech therapy for CCC holders; assessments for NCED holders) as it impacts the learning outcomes of students. In a recent discussion of the state of value-added measures, Rubenstein (2012) suggested that measures of inputs rather than outputs would provide a more extensive basis of analysis for value-added discussion.

But research that investigates value-added benefits of other national credentials, when compared with that of the NBCT, is far less abundant. For example, Skalski (2011) issued a challenge to NASP members to begin demonstrating how “services provide value in this era of unprecedented accountability and educational reform” (para. 9). One proposed initiative by The Louisiana Department of Education and School Psychological Association Task Force (Duhe et al., 2010), yet to be approved, centers on implementation of value-added portfolios for certified school psychologists. ASHA is currently in the process of developing resources for value-added assessments that members can use nationwide (Adamczyk, 2011). The intent of the projected system is to measure the quality and contributions of speech and language professionals while linking their work with student achievement. One representative effort to explore the value-added work of counselors was conducted by Lapan and Harrington (2005), whose multiple-regression analysis resulted in recommendations to implement comprehensive counseling programs and reduction of noncounseling tasks.

Given the recent inception of the NCED certification program, the literature to date on the credential’s impact, efficacy, and value-added effect on certificate holders is admittedly sparse. Yet providing a measure of input into the ongoing value-added discussion (Rubenstein, 2012), coupled with the growing awareness of the educational diagnostician profession (CEC, 2013; NCED Board, 2012a, 2012b) and increased job prospects (National Clearinghouse for Professions in Special Education, 2000), warrants the need for conducting empirical research on the NCED. Therefore, in addition to obtaining quantitative data on the demographics of a sample of NCED holders and their non-NCED counterparts, the present study investigated one major research question in an effort to evaluate the NCED’s value-added potential: Do the self-ratings of professional practices of educational diagnosticians...
holding national certification differ significantly from those without national certification?

**Method**

**Sample**

The national registry of NCED holders numbered 678 in 2011 (NCED Board, 2012c), representing certificates issued to qualified educational diagnosticians in 18 states. However, the preponderance (94%) of certificate holders resided in three states: Louisiana (LA), 32% (n = 215); New Jersey (NJ), 21% (n = 141); and Texas (TX), 41% (n = 276). The departments of education in these three states, in particular, have a long history of recognizing the distinctive work of special education assessment professionals (Sutton et al., 2009). Moreover, these three states have standards and licensure requirements specific to individuals with a working title of educational diagnostician or equivalent (e.g., learning consultant).

With these population dynamics in mind, researchers selected two of the three states (i.e., LA and NJ) to conduct the study. Three rationales drove this decision. One, we could maximize our potential sample by focusing the study on two of the three largest NCED holder states. Two, for purposes of administration of the instrument and collection of data for the study, we would be able to solicit the assistance of state leaders in LA and NJ, with whom researchers had existing working relationships, thereby making data collection optimally manageable. Last, we could ensure a modicum of geographic representation by drawing participants from one Southern state (i.e., LA) and one Northeastern state (i.e., NJ), where a plurality of NCED holders reside.

Researchers subsequently identified a sample of 262 educational diagnosticians for participation in the study (see Table 1) from the states of LA and NJ, which included NCED holders (n = 116) and non-NCED holders (n = 146). The sample was overwhelmingly (97.3%) female, a gender imbalance that was expected, given most states require that educational diagnosticians hold a graduate degree in special education, and the national special education teacher workforce is disproportionately female at 85.1% (U.S. Bureau of Labor Statistics [USBLS], 2010). In addition, approximately 13% of the sample reflected minority ethnicities, which mirrored their representation of 15% in the national special education teacher population (USBLS, 2010).

That researchers were able to solicit participation from nearly 20% of the nationwide population of NCED holders was notable. However, because we were dealing with a sample of convenience, we were concerned about possible differences among the proportionality of participants in the sample groups and subgroups. Statistical analysis revealed few differences. A nonparametric chi-square test of the observed and expected numbers of NCED holders from LA versus those from NJ revealed no significant difference, \( \chi^2(1, N = 116) = .14, p = .71 \). A comparison of the four subgroups (two NCED; two non-NCED) on state residence, however, generated a

### Table 1. Sample Demographics.

<table>
<thead>
<tr>
<th>Variable</th>
<th>NCED Holders (n = 116)</th>
<th>Non-NCED Holders (n = 146)</th>
<th>Total Sample (N = 262)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Female</td>
<td>115 (99.1)</td>
<td>140 (95.9)</td>
<td>255 (97.3)</td>
</tr>
<tr>
<td>Male</td>
<td>1 (0.9)</td>
<td>6 (4.1)</td>
<td>7 (2.7)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>9 (7.8)</td>
<td>15 (10.3)</td>
<td>24 (9.2)</td>
</tr>
<tr>
<td>Asian American</td>
<td>5 (4.3)</td>
<td>1 (0.7)</td>
<td>6 (2.3)</td>
</tr>
<tr>
<td>Caucasian</td>
<td>101 (87.1)</td>
<td>126 (86.3)</td>
<td>227 (86.6)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1 (0.9)</td>
<td>2 (1.4)</td>
<td>3 (1.1)</td>
</tr>
<tr>
<td>Undisclosed</td>
<td>0 (0.0)</td>
<td>2 (1.4)</td>
<td>2 (0.8)</td>
</tr>
<tr>
<td>Years of Experience</td>
<td>M=13.8</td>
<td>M=11.7</td>
<td>M=12.7</td>
</tr>
</tbody>
</table>

Note. NCED = Nationally Certified Educational Diagnostician

a Data unavailable on 5 non-NCED holders.
We found no significant difference in the observed versus expected NCED holders on the demographic variable of ethnicity, as this information was unavailable in the national NCED registry. But for analysis of subgroups on ethnicity, we collapsed the number of minority ethnicity participants for each subgroup (NCED = 15; non-NCED = 20), and analyzed these with the number of White participants (NCED = 101; non-NCED = 126). The resulting χ²(1, N = 262) = 0.00, p = 1.00, indicated no significant difference among the subgroups on ethnicity. One other analysis revealed a significant difference in mean years of assessment experience, t(260) = 2.09, p = .03, with the NCED group possessing more experience than the non-NCED group.

**Instrument**

We developed a Likert-type (Likert, 1931) questionnaire to collect data for the study. Practices for diagnostic specialists are rooted in knowledge, skills, and standards for the profession. Therefore, we developed items for the survey that were anchored in the six professional standards delineated by CEC for diagnostic specialists and adopted by the NCED Board (2012b): Standard 1, Leadership and Policy; Standard 2, Program Development and Organization; Standard 3, Research and Inquiry; Standard 4, Individual and Program Evaluation; Standard 5, Professional Development and Ethical Practice; and Standard 6, Collaboration. Items prompted respondents to self-assess the frequency of their work as educational diagnosticians using a 4-point scale: 4 = frequently; 3 = sometimes; 2 = seldom; and 1 = hardly ever. By limiting the survey to 4 items for each of the six professional standards (total of 24 items), researchers believed that participants would perceive the survey as manageable (i.e., succinct), increasing the likelihood they would complete the survey, thereby maximizing the response rate.

We addressed face validity and content validity of the questionnaire through use of an expert panel. Questionnaire items developed by the researchers, along with a copy of the NCED Board (2012b) standards, including knowledge and skill indicators, were presented to a panel of 10 expert educational diagnosticians. The experts (a) resided in six states, including LA and NJ; (b) held the NCED credential; (c) possessed graduate/doctoral degrees in special education; and (d) had considerable years of experience in assessment (M = 25.75 years; range = 11–26 years). Using email and online conference discussion formats, experts exchanged ideas, suggestions, and modifications on the items and rendered their judgment regarding the readability (e.g., word choices), content, and practicality of survey items in light of the CEC/NCED standards, knowledge, and skills.

Experts agreed that the instrument appeared to measure practices of diagnosticians and that items in each domain referred to the corresponding standard areas, thus rendering their opinion that the survey possessed acceptable face validity. Experts also agreed that, although more items could have been developed to cover additional, specific knowledge and skills within the corresponding standards, the proposed items sufficiently represented the preponderant practices of diagnosticians, signaling acceptable content validity of the instrument. By extension, observations of the panel regarding face validity and content validity also provide modest support for construct validity (Agosta, Daignault, Smith, & Fortune, 2008; Trochim, 2006a, 2006b). Researchers adopted all recommended edits and changes of survey items made by the expert panel, resulting in the final version of the *Educational Diagnostician Practices Questionnaire* (EDPQ; see Table 2) for use in the study.

We analyzed internal consistency of the instrument by calculating Cronbach’s (1951) coefficient alpha on survey responses from the sample respondents in each of the six standards/domains of items on the EDPQ. Results were as follows: Standard 1, Leadership and Policy, α = .42; Standard 2, Program Development and Organization, α = .36; Standard 3, Research and Inquiry, α = .57; Standard 4, Individual and Program Development, α = .47; Standard 5, Professional Development and Ethical Practice, α = .46; and Standard 6, Collaboration, α = .64. Despite the lower alphas generated for the individual domains (Cortina, 1993), the resulting α = .78 for the overall EDPQ indicated acceptable internal consistency and reliability for the total EDPQ (Gliem & Gliem, 2003). By taking the square root of these internal consistency figures, the maximum validity (Crocker & Algina, 1986) of items comprising each EDPQ Standard range from .60 (Standard 2) to .80 (Standard 6), with an overall EDPQ validity of .88.

**Procedures**

In collaborating with state leaders, each with unique and limited financial resources, researchers agreed to varying procedures in collecting data for the study. One state chose to administer the EDPQ online, while the other decided to go with a hard copy EDPQ. Participants from both states completed the survey during the fall semester of the year. In addition, researchers received assurances from state leaders that fidelity of the survey instrument would be preserved. Both the online and hard copy versions of the instrument contained the same 24 items with no deviation in the wording of the items and instructions between the two versions.

Louisiana participants completed an online version of the EDPQ. With assistance from the Office of the State Supervisor
of Educational Diagnosticians of the Louisiana Department of Education, an email explaining the purpose of the study with a link to the questionnaire via SurveyMonkey® (2011) was issued to approximately 300 practicing diagnosticians from (a) the Supervisor’s email distribution list and (b) the Louisiana Educational Diagnosticians’ Association (LEDA, 2012) membership list. A 4-week window of time was allowed for response. All online survey responses were monitored electronically by the State Supervisor in collaboration with researchers. Approximately 29% of the LA diagnosticians returned the completed survey.

NJ participants completed a hard copy version of the survey, administered during the registration process at the annual fall conference of the New Jersey Association of Learning Consultants (NJALC; 2012). The majority of the 300 conference attendees were educational diagnosticians certified by the state of NJ as Learning Disabilities Teacher Consultants (LDTC). Approximately 82% of the attendees who were LDTCs completed the survey which was monitored by NJALC state leadership in collaboration with researchers. Conference attendees were directed to complete the hard copy survey at the conference site and deposit completed surveys into a sealed container prior to exiting the conference premises. Respondents received a flash drive as an incentive. State leaders and several researchers, also on-site for the conference, retrieved, counted, reviewed, and organized survey data electronically for analysis.

### Design and Analysis

Researchers employed a nonexperimental, survey research design to analyze differences of self-ratings of professional

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**Table 2. Educational Diagnostician Practices Questionnaire (EDPQ) Items and Aligned Standards.**

<table>
<thead>
<tr>
<th>Questionnaire Item</th>
<th>Standard</th>
<th>K or S</th>
<th>K/S Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I am open to new or different leadership roles as an assessment professional.</td>
<td>1</td>
<td>K</td>
<td>ACC1K2</td>
</tr>
<tr>
<td>2. I know the implications for assessment from new and changing federal and state laws.</td>
<td>1</td>
<td>K</td>
<td>ED1K1</td>
</tr>
<tr>
<td>3. I am confident in my understanding of the RTI (Response to Intervention) process.</td>
<td>1</td>
<td>K</td>
<td>ED1K1,2,3</td>
</tr>
<tr>
<td>4. I work with general education and/or special education faculty on RTI projects.</td>
<td>1</td>
<td>K</td>
<td>ED1K1,2,3</td>
</tr>
<tr>
<td>5. I determine instructional accommodations/modifications from specific assessment results.</td>
<td>2</td>
<td>K</td>
<td>ED2K4</td>
</tr>
<tr>
<td>6. I consider a student’s race/ethnicity in deciding whether an evaluation warrants follow-up assessment.</td>
<td>2</td>
<td>K</td>
<td>ED2K3</td>
</tr>
<tr>
<td>7. I question disproportionately high numbers of male referrals as female students struggle without referral.</td>
<td>2</td>
<td>K</td>
<td>ED2K3</td>
</tr>
<tr>
<td>8. I outfit my test battery with instruments that assess more than one recognized disability.</td>
<td>2</td>
<td>K</td>
<td>ED2K1</td>
</tr>
<tr>
<td>9. I research and investigate best practices in instructional interventions.</td>
<td>3</td>
<td>K</td>
<td>ACC3K1</td>
</tr>
<tr>
<td>10. I read published reviews of new assessment instruments and techniques.</td>
<td>3</td>
<td>S</td>
<td>ED3S1</td>
</tr>
<tr>
<td>11. I use the most current editions of newly published tests.</td>
<td>3</td>
<td>K</td>
<td>ED3K1</td>
</tr>
<tr>
<td>12. I reflect on new assessment techniques as they relate to established learning theory.</td>
<td>3</td>
<td>S</td>
<td>ED3S1</td>
</tr>
<tr>
<td>13. I incorporate classroom observations of students as an integral component in my assessments.</td>
<td>4</td>
<td>S</td>
<td>ED4S1</td>
</tr>
<tr>
<td>14. I develop and implement informal assessments.</td>
<td>4</td>
<td>S</td>
<td>ED4S2</td>
</tr>
<tr>
<td>15. I reference technical/examiner’s manuals in interpreting individual student test scores.</td>
<td>4</td>
<td>K</td>
<td>ED4K3</td>
</tr>
<tr>
<td>16. I strive to make my assessment reports increasingly more thorough.</td>
<td>4</td>
<td>S</td>
<td>ED4S5</td>
</tr>
<tr>
<td>17. I attend professional conferences related to assessment.</td>
<td>5</td>
<td>S</td>
<td>ED5S2</td>
</tr>
<tr>
<td>18. I make presentations/workshops at state and/or national conferences related to assessment.</td>
<td>5</td>
<td>S</td>
<td>ED5S2</td>
</tr>
<tr>
<td>19. I make presentations/workshops to local school staff and/or parents.</td>
<td>5</td>
<td>S</td>
<td>ED5S2</td>
</tr>
<tr>
<td>20. I contribute articles to professional journals or newsletters.</td>
<td>5</td>
<td>S</td>
<td>ED5S2</td>
</tr>
<tr>
<td>21. I solicit parental input and their choices/goals regarding their child’s education program.</td>
<td>6</td>
<td>S</td>
<td>ACC6S1</td>
</tr>
<tr>
<td>22. Teachers at my school(s) consult with me in development of prereferral interventions and strategies.</td>
<td>6</td>
<td>S</td>
<td>ED6S3</td>
</tr>
<tr>
<td>23. I assist fellow educators in developing curriculum-based probes in measuring student growth.</td>
<td>6</td>
<td>S</td>
<td>ED6S4</td>
</tr>
<tr>
<td>24. I emphasize a team problem-solving approach in my assessment practice.</td>
<td>6</td>
<td>S</td>
<td>ED6S1</td>
</tr>
</tbody>
</table>

*K = Knowledge; S = Skill; Standard 1, Leadership & Policy includes 17 indicators (12K, 5S); Standard 2, Program Development and Organization includes 15 indicators (10K, 5S); Standard 3, Research & Inquiry includes 7 indicators (3K, 4S); Standard 4, Individual & Program Evaluation includes 30 indicators (16K, 14S); Standard 5, Professional Development & Ethical Practice includes 18 indicators (6K, 12S); Standard 6, Collaboration includes 10 indicators (3K, 7S).


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SurveyMonkey is a registered trademark of ZoomInfo, Inc. (2011).
practices among educational diagnosticians with and without national certification. Survey responses were collapsed into six domains, each containing four items contained in the EDPQ and corresponding to the six NCED Board (2012b) standards (e.g., Domain 1 contained Items 1–4 corresponding to Standard 1; see Table 2). Domain means were then calculated for the comparison groups. A total EDPQ mean comprising 24 items was also calculated for each group. We used analysis of variance (ANOVA) to test for differences in group means for each EDPQ domain and the total EDPQ means. An alpha level of .05 was adopted as a minimum for statistical difference.

Results

Table 3 provides the means, standard deviations, and ANOVA results from the analysis. Higher mean self-ratings occurred in Leadership and Policy (NCED = 3.76; non-NCED = 3.57) and Research and Inquiry (NCED = 3.74; non-NCED = 3.67). The lowest mean self-ratings occurred in the Professional Development and Ethical Practice domain (NCED = 2.70; non-NCED = 2.65). Mean self-ratings in all six of the EDPQ domains were observably higher for the NCED group.

Results of ANOVA tests produced statistically significant differences between the NCED and non-NCED groups on mean self-ratings in the following EDPQ domains: Leadership and Policy, $F(1, 260) = 25.42; p < .000$, in favor of NCED holders; Collaboration, $F(1, 260) = 10.56; p = .001$, also in favor of NCED holders; and Total EDPQ, $F(1, 260) = 8.50; p = .004$, once more, in favor of NCED holders. Results were nonsignificant on the remaining domain means.

Discussion

The primary purpose of this study was to investigate differences in the self-assessed professional practices among educational diagnosticians ($N = 262$) with and without national certification using the EDPQ. The analyses yielded three key results. First, we found a significant result in the combined six total Standards (NCED > non-NCED). Inspection of the group mean self-ratings for each of the six standards revealed that NCED holders rated themselves higher on average than non-NCED holders. Knowledge and skills corresponding to Standards 1 through 6 for certificate holders reflect the gamut of assessment competencies that characterize advanced-level educational diagnosticians as defined by NCED Board (2012b).

Second, we found a significant result in Standard 1, Leadership and Policy (NCED > non-NCED). Knowledge and skills corresponding to Leadership and Policy (NCED Board, 2012b) for NCED holders revolve around directing the implementation mandates and provisions pertaining to assessment from federal and state laws, demonstrating the ability to provide leadership, and advocating for changes in education policy, necessary resources, and initiatives for those who work with students who have disabilities. In the broader literature, Petty, O’Conner, and Dagenhart (2003) found that a desire to serve in various leadership roles significantly differentiated NBCT holders and non-NBCT holders.

Third, we found a significant result in Standard 6, Collaboration (NCED > non-NCED). Knowledge and skills consistent with Collaboration (NCED Board, 2012b) for NCED holders center on consensus-building among stakeholders involved in the education of students with disabilities, conflict resolution, and maximizing opportunities for all individuals to have access to various program options. Other studies have identified collaboration as a differentiating factor for certificate holders. For example, Frank, Sykes, Anagnostopoulos, and Chard (2008) found that teachers holding the NBCT were nominated by fellow teachers significantly more than non-NBCT holders for purposes of offering collaborative help with instructional matters.
Explanations for the significant results vary. If we accept the assumption that the sampled groups reflected the national population of those holding the NCED credential and those who do not, then statistical differences on the EDPQ may be a reflection of possessing national certification. Further support would be added from the significant difference in mean years of assessment experience we found between NCED holders and non-NCED holders (NCED > non-NCED; see Table 1). It is plausible that more years of assessment experience would suggest greater professional maturity and more proficient competency that could serve as the impetus for why the diagnosticians in our sample obtained the NCED credential in the early, first few years of its availability.

However, the differences among diagnosticians in our sample in the areas of Leadership/Policy and Collaboration might instead be a reflection of varying regulations in the states of LA and NJ that impact practices. For example, diagnosticians in NJ are authorized to administer, score, and interpret cognitive assessments such as the Woodcock–Johnson III Tests of Cognitive Ability (Woodcock, McGrew, & Mather, 2007), whereas LA diagnosticians are not. Yet when compared with NJ diagnosticians, LA diagnosticians are more immersed in the school culture, serving as chairs of meetings where they are required to interpret assessment results, while companion assessment professionals (e.g., school psychologists) are more responsible for counseling as it relates to assessment results.

We found no significant differences in the mean self-ratings of NCED holders and non-NCED holders in the remaining four domains/Standards assessed on the EDPQ, which included Standard 2, Program Development and Organization; Standard 3, Research and Inquiry; Standard 4, Individual and Program Evaluation; and Standard 5, Professional Development and Ethical Practice. It is possible that nonsignificant results, as well as significant results, were influenced by the overwhelming presence of respondents from NJ (n = 175) versus LA (n = 87) in the sample, and the significantly disproportionate number of non-NCED holders from NJ (n = 127) versus LA (n = 19). We surmised that there was a considerably greater response from NJ because the EDPQ was administered on-site at their annual conference, while the EDPQ was administered online to LA diagnosticians.

Administering the instrument on-site offered the following advantages in maximizing the response rate in NJ: (a) conference officials were able to make several pitches to complete the survey at the opening and prior to exiting the conference, (b) attendees were reminded frequently throughout the 3-day event with announcements at workshops, (c) attendees were focused solely on activities related to the conference (including the expectation to complete the survey), (d) attendees were not distracted by job/work requirements, (e) reminder signs to complete the survey were posted prominently throughout the conference meeting areas, and, most importantly, (f) upon submission of the survey, attendees received an incentive (i.e., flash drive). The LA state supervisor who collaborated with researchers in administering the EDPQ online was unable to ensure any of the advantages enumerated for NJ conference attendees, except for frequent reminders, which were conducted via email.

We also hypothesized that non-NCED holders in NJ may likely have felt more comfortable completing/submitting the EDPQ, in that a hard copy of the survey guaranteed virtual 100% anonymity. Potential non-NCED holders in LA, however, may have had heightened concerns that anonymity of their responses on the online version of the EDPQ could not be ensured, given the possibility of a digital trail. In conjunction, as NJ conference attendees were not dealing directly with their state supervisor, non-NCED attendees may have felt more comfortable and willing to complete/submit the survey. On the contrary, potential non-NCED respondents in LA, fully aware they were in direct email communication with their state supervisor, may have been reluctant to respond. Unlike their NCED colleagues, non-NCED holders in LA who withheld participation in the study may have reasoned that completing the EDPQ would be a tacit admission of failure to obtain national certification, which might have placed them in a potentially vulnerable position with their state supervisor.

Limitations and Future Research

Results of the present study must be viewed in light of its limitations and with respect to directions for future research. Limitations center primarily on the sample, development and administration of the survey, and data measures. First, the sample was limited to 2 of the 18 available states (i.e., LA and NJ) where NCED holders reside. In addition, we over-sampled respondents from NJ (2:1 ratio) compared with LA, and there was a significantly disproportionate number of non-NCED holders from NJ, all of which possibly influenced results. Second, the EDPQ was limited to four items per Standard/domain, which brought into question item coverage for the Standards, particularly, Standard 1, Leadership and Policy, and Standard 5, Professional Development and Ethical Practice. An acceptable coefficient alpha (ρ = .78) for the total EDPQ instrument notwithstanding, fewer items per domain likely influenced lower internal consistency (ρ = .36–.64) for each of the six Standards on the EDPQ. Furthermore, the evidence we presented for construct validity of the EDPQ was only minimally acceptable. We also experienced inconsistent administration of the survey (i.e., online vs. hard copy, incentive available only for NJ, etc.). Third, the study included self-report data exclusively, which allowed for limited conclusions to be drawn about the value-added potential of the NCED. Fourth, issues with the sample and
the survey that may have influenced the study’s results sub-
sequently limited researchers’ ability to fully generalize sig-
nificant findings from the present study to existing literature
conducted on other national credentials, especially with
Standard 1, Leadership and Policy.

Limitations noted for this study provide a prescription for
conducting additional research that (a) replicates and clari-
fies present findings, (b) further explores the professional
practices of NCED and non-NCED holders, and (c) exam-
ines more directly the value-added effects of the NCED.
Therefore, we offer a number of recommendations for future
research. First, replicating the study with a more representa-
tive sample is essential. Although we achieved a robust sam-
ple size that included almost one fifth of national population
of NCED holders, there were issues with representativeness
(Salvia, Ysseldyke, & Bolt, 2013) in the sample groups and
subgroups. Respondents were also limited to two states. In
addition, our sample included a disproportionate number of
non-NCED participants from one of the two states (i.e., NJ),
which, as already acknowledged, may have skewed the
results. With the NCED registry identifying certificate hold-
ers in 18 states, a follow-up study will need to include NCED
holders and non-NCED counterparts from more representa-
tive states. A random, stratified sample, as opposed to a sam-
ple of convenience, will better ensure balance and propor-
tionality of groups and subgroups.

Second, replication efforts will need to include consis-
tent collection of data. Should a questionnaire be adopted,
administration procedures should be similar for all respon-
dents. The efforts of researchers in the present study to
work closely with state leaders for purposes of administer-
ing the survey were laudable and fostered collaboration.
However, the unintended effect was that researchers’ ability
to fully monitor and implement consistent administration of
the survey was diminished. Data collection in a replication
study will need to ensure (a) one format for the instrument
(hard copy or online), (b) uniform administration of the
instrument (via email or on-site at a conference), (c) equiva-
 lent time frame for participants to respond (a few days or
several weeks), and (d) opportunity for all sample respon-
dents to receive an incentive.

Third, the EDPQ will need to be revised for use in future
research on the NCED. There are several critical concerns
that should be addressed, all linked with limitations previ-
ously noted. One concern is that more items will need to be
developed for each of the EDPQ domains that correspond
with NCED Board (2012b) standards. Korb (2011) has rec-
ommended a 4 to 10 ratio of survey items to variables.
Increasing, possibly doubling, the number of items on the
EDPQ from its present 4 per domain would contribute to
greater variability, and, hence, higher reliability of the
instrument while preserving researchers’ concerns that the
survey be sufficiently succinct to be completed by most
respondents.

Another concern of the EDPQ is item coverage for the
NCED Board (2012b) standards, each of which contains
numerous knowledge and skill indicators. For example,
Standard 1, Leadership and Policy, includes a total of 17
knowledge and skill indicators (12 knowledge; 5 skill).
Close analysis of the 17 indicators reveals only one explicit
mention of the term, leadership, yet 4 indicators reference
law or legal aspects, with the balance of 12 indicators focusing
on various, major policies and initiatives related to the
profession of educational diagnostics, including response to
intervention (RTI).

Some might argue that the title for Standard 1, Leadership
and Policy, as rendered by NCED Board (2012b) is a mis-
nomer, given there is so little explicit mention of leadership
in the indicators. Others (e.g., Dale, 2012; Singer, 2011)
maintain simply that leadership, policy, and law are inextric-
cably intertwined. The apparent imbalance, lack of empha-
sis on, or mention of, leadership in the wording of the 17
indicators, may not necessarily be legitimate concerns, as
one could view implementation of RTI by a diagnostician,
for example, as evidence of leadership effort. However,
inclusion of only one item reflecting law and legal aspects
in the current version of the EDPQ underrepresents the
knowledge and skill indicators, a weakness that will need to
be rectified in the next version of the instrument.

In addition, the observably lower mean self-ratings
(NCED = 2.70; non-NCED = 2.65) from respondents on
Standard 5, Professional Development and Ethical Practice,
when compared with higher self-ratings in the other
Standards, suggest the need to revise or replace these items.
Upon reflection, we surmised that the primary focus of the
items (three out of four) in Standard 5 on presenting work-
shops and publishing articles was unrealistic for typical
practicing educational diagnosticians, even those in supervi-
sory roles. Although publishing and presenting work-
shops are professional activities expected of educational
diagnosticians in higher education settings, other activities
reflecting Standard 5 that would be more commonly per-
formed by diagnosticians at the local school level (e.g.,
mentoring colleagues, supervising aspiring diagnosticians,
attending local workshops/state conferences) should be
given more weight in a future version of the EDPQ.

Fourth, more thorough evidence of validity for the EDPQ
will need to be provided if it is used in future studies. For
example, developing more practitioner-relevant items for
Standard 5, which impacts content validity, might be reme-
died by including representatives on the expert panel who are
non-NCED holders and/or NCED holders who do not hold
supervisory roles. Moreover, as opposed to making a mini-
mal case for construct validity by addressing only face valid-
ity and content validity, researchers should compare results
from the EDPQ with another similar measure that assesses
the equivalent construct (i.e., knowledge, skills, practices) to
build a stronger case for construct validity. One option might
be correlating EDPQ results for NCED holders with corresponding NCED exam scores. Enhancing construct validity could also be accomplished by applying Agarwal’s (2011) two-stage sorting process, a more rigorous procedure for sorting survey items per category and determining item appropriateness for the six Standards on the EDPQ.

Last, research on the NCED that extends beyond replication of the present study is needed. Collecting data using a direct rather than self-report measure should also be considered. Although the present study attempted to ascertain the value-added potential of the NCED, use of self-report data (i.e., EDPQ), common as they are in educational research, threaten validity and weaken researchers’ ability to make substantive inferences (Chan, 2009). Future research that strives to validate the NCED by definitively establishing the value-added impact of the NCED, rather than just its potential, will need to employ direct measures, possibly in the form of value-added portfolios as proposed by Duhe et al. (2010).

Conclusion

This study contributes to the literature in a number of ways. It represents the first empirical study on the NCED since the inception of the program by CEC–CEDS in 2007. This study also establishes baseline data on self-assessed practices of NCED holders, which is important in offering validation for its existence, in growing the credential nationally, and in promoting wider recognition within the professional community. In addition, as with similar studies that have explored the effects of other national credentials (e.g., NBCT), the present study, as a first study on the value-added potential of the NCED, expands the available literature.

Proponents who support national certification for educational diagnosticians must continue to promote investigations of the NCED credential. Furthermore, it is important to acknowledge the close association between professionalism and national certification. But touting a strong sense of professionalism alone (Sutton et al., 2009) as the sole basis for growing a credential may not be enough to sustain the life of a national certification program, if research is unable to distinguish the effective practice of certificate holders. Should future research fall short in establishing value-added learner outcomes and high-quality practices for educational diagnosticians who hold the NCED, then researchers must rightly call into question the professional impact of holding the credential altogether. At a minimum, such a fate would require that policymakers revisit the NCED Board (2012b) standards, knowledge, and skills that define the profession.

Acknowledgment

We gratefully acknowledge the assistance of Nick Elksnin, PhD, in an earlier draft of this article.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Note

1. In addition to Louisiana, New Jersey, and Texas, the remaining 15 states with NCED holders in 2011 include Alabama, Arkansas, California, District of Columbia, Florida, Mississippi, Missouri, New Hampshire, New Mexico, New York, North Carolina, Oklahoma, Pennsylvania, Virginia, and Wyoming.

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