University of Puerto Rico

Río Piedras Campus

**Eugenio María de Hostos College of Education**

**Standard 4. Program Impact**

March, 2018

**II Standard 4. Program Impact**

1. Need validity and reliability data on all surveys.

**Validity Information Regarding EPP Form and Surveys:**

a. Completer Information Form validity information:

The Contact Survey is hereon referred to as the **Completer Information Form** (in Spanish Cuestionario de Contacto) because the data gathered was intended for database building purposes. All the data gathered was descriptive and qualitative. It was validated in content and face validity by an expert panel of two practicum supervisors, two student-teachers, one graduate student and two professors. A pencil-paper version was piloted with 15 completers on March 2015, and the response was positive; the 15 completers answered all the questions and no negative comments were received. The data that the completers provided about their professional achievements and their students' achievements as well, was used to create categories included in the Completers Satisfaction Survey- Section IV, called Evidence of Professional Practice.

b. Employers Opinion Survey validity information:

This survey was originally created in 2007 and developed by the Educational Research Center (CIE, for its acronym in Spanish) and was titled "Employers Opinion Survey." Data provided by the employers (school principals). This instrument was used in the Self Study for NCATE accreditation on 2010 with good results. The CIE conducted face validity of the instrument.

For research purposes, the instrument was revised and modified, taking into account CAEP criteria, by the director of the Induction Project and her staff, currently in charge of the Standard 4, and was piloted in January 2016 as the Employers Survey I. It was then refined as a Employers Satisfaction Survey II. The Employers Opinion Survey I (2016) included questions directly related to the ten professional competencies and five dispositions, and incorporated new questions about student achievements promoted by completers, in order to connect valuable information for 4.1 Student Impact. It also included completers achievements and questions related to promotions. Seven experts in different areas (three professors, two clinical supervisors, one research methods design expert, one school principal and one teacher) read the instrument and provided meaningful suggestions such as: shorten questions, use concepts that were well understood by school principals from public system, municipal and private schools, and shorten long explanations. After the panel revised the document, it was piloted with 28 directors and these results were analyzed (Employers' Satisfaction Survey I). During September 2016, it was revised and titled Survey II, with added questions related to labor conditions, and specific questions about novice completers (five years or less of experience); thus we were able to fully comply with the standard. We also included questions related specifically to novice teachers from the EMHCE.

To ascertain the content validity of the instrument a team of six experts reviewed the questions of the instrument. The expert panel composed of two professors, two clinical practicum supervisors, one graduate student in Educational Leadership Program, and a graduate research student. They revised the instrument individually in three dimensions: content related to competency, relation of the question to the standard aim, clarity and coherence in the descriptor, and grammar. Recommendations were discussed in a CAEP meeting with members of all 5 standards. Consensus among the experts was the criterion for acceptance of the questions/items.

See standard 5 of this report for more information.

c. Completers Satisfaction Survey validity information:

To ascertain the content validity of the survey, a team of six experts reviewed the instrument. The expert panel was comprised by two professors, two practicum supervisors, one candidate who was doing her practicum, and a graduate research student. The group reviewed the instrument in four dimensions: content related to competency, relation of the question to the standard criteria, clarity and coherence in the descriptor, and grammar. Recommendations were discussed in a CAEP meeting with members of all 5 standards. Consensus among the experts was the criteria to accept or not the question/item.

See standard 5 of this report for more information

**Reliability Data Coefficient for EPP surveys:**

The following section discusses the reliability and validity of the various instruments utilized in standard 4.

**Introduction:** Cronbach alpha coefficients were calculated for the competency, satisfaction and necessity scales for the Employers and Completers survey respectively. Cronbach's alpha coefficients were evaluated using the guidelines suggested by George and Mallery (2016) where > .9 excellent, > .8 good, > .7 acceptable, > .6 questionable, > .5 poor, and ≤ .5 unacceptable.

Reliability for Scales in the Completers Survey

| Scale | No. of Scales | α |
|---|---|---|
| Competencies | 39 | 0.98 |
| Necessity | 13 | 0.96 |
| Satisfaction | 12 | .93 |

**Table 1*:* Reliability for Scales in the Employers Survey**

| Scale | No. of Items | α |
|---|---|---|
| Competencies | 34 | 0.98 |
| Dispositions | 11 | .97 |

See standard 5 for more information

## 2. Improving Response Rate of Surveys

Discussion of general recommendations to boost the questionnaire response rate: Our recommendations are based on peer assessment and a review of the literature on response rates. After offering the general recommendations, we will proceed to offer specific changes to each questionnaire to encourage completers to fill them and increase our response rate.

### a. Increasing Response Rate

The following is a list of different strategies that are going to be implemented to improve the response rate on both the Completer Satisfaction Survey and the Employers Survey. The list of strategies utilized was retrieves from Nulty's (2008) article on the adequacy of response rates to online and paper surveys.

**(1) Accessibility:** The first step to boosting our response rate will be to make the questionnaires more accessible. In the past, the questionnaires were distributed through emails, they were available on paper on professional conferences and workshops, were shared by various teaching professional organizations, and were also available in paper and online to all completers that attended EPP activities. To further improve our efforts in making the questionnaire accessible, we will contact Rio Piedras system alumni associations, so completers can have them available in their website and in their offices in paper. Also, we will continue contacting the Puerto Rico Department of Education, so they can share it though a memorandum of understating (MOU) to encourage completers currently working as teachers in public schools. The memorandum will prevent that political party changes in the department of education's hierarchy would affect the questionnaire accessibility to completers.

**(2) Follow up:** Frequent reminders will be provided to completers that have not filled out the questionnaire. In the past, we reminded once to those that have not complete the questionnaire. This time we will be issuing three reminders on a period of three weeks. These reminders will be sent either by email, text or voice message.

**(3) Response Importance:** We will reassure responders that their answers will be used, to improve the University of Puerto Rico Teacher Preparation Program. In the questionnaire we included a section that highlighted the importance of completing the

questionnaire but did not highlighted in the initial email. We will include an excerpt in the email that accentuate the importance of filling it and the positive changes it can bring to the teacher preparation programs.

**(4) Questionnaire Length**. We recognize that one of the main problems of the questionnaires is their length. This was addressed in our pilot study and discussed with peers that revised it. Our initial thoughts were that a comprehensive analysis of our completers and employer's satisfaction with the University of Puerto Rico Teacher Preparation Programs would require a lengthy questionnaire so that the different competencies could be assessed. After analyzing our response rate, we realize that both questionnaires need changes to help teacher complete them in less than 15 minutes. Both questionnaires will have changes that include: question deletion, rephrasing of questions and closing open ended questions. The questionnaires changes will be discussed separately on a section below.

**(5) Encouragement** to increase our response rate we will offer different rewards to those that complete the questionnaire. We will include an excerpt in each questionnaire that will explain the number of rewards and the possible incentives they could receive. This incentive will motivate them to complete our questionnaires. The incentives are: (A) free copies of the *Pedagogic* journal, (B) free access to teacher workshops and (C) discounts at the University of Puerto Rico accessory shop.

We believe these changes will help us increase our response rate and help us achieve a representative sample of completers and employers' opinions on the University of Puerto Rico Teacher Preparation Program. The current telecommunications status after Hurricane María may affect the implementation of these plans. As soon as the grid normalizes we will begin implementing them to meet our goal of having a representative sample of completers and at least have 150 employers complete the survey.

**b. Individual Questionnaire Changes to Improve Response Rate**

In the following section we present the changes made to each questionnaire. These changes were reviewed by faculty members to decrease the survey's completion time. The following questions were removed from the questionnaires to reduce their length and improve response rates.

**Completer's Satisfaction Survey**

Education Level of your school
What is your school's location?
Are you certified in any specialty?
How many students do you have per classroom?
Have you taken the cooperative teacher course?

How many schools have you worked before?
Describe your students' achievements
Describe your professional achievements

**Employers Opinion Questionnaire**

Municipality your school is located
What is your school location?
If you are not a school principal, what is your role in the school?
School's Enrollment: low income students, special education students and migrant students.
How many of our completers are cooperative teachers?
Describe an initiative driven by our completers
Describe our completers' students' achievements
Describe our completers' professional achievements
Do novice completers have difficulty in adjusting to teaching responsibilities?

3. Only numbers are given, not reasons for lack of promotion or reemployment

The responsibility of relocation, reassignment, transfer and recruitment of teaching personnel is exclusively held by the Regional Directors as it is stated in the Education Organic Law (Law 149, 1998 as amended, see Addendum Report Evidence 4.1). Regional Directors recommend the positions that any school -within his/her region- needs, depending on availability of resources. An official document of Recruitment Policy states that p.20: "Exceeding teachers will be those who are not considered essential to comply with the school's academic project".

Page 3 of the Circular Letter 25-2015-2016: *Public policy for relocation, reassignment, transfer, and recruitment of teaching personnel in the public system schools and technology institutes - academic year 2016-2017* states: **C. Relocations, reassignments, transfers and recruitment of personnel teacher**

C.1 Personnel responsible for relocations, reassignments, transfers and teacher recruitment

In accordance with the Organic Law of the Department of Education, as amended, the directors of the educational regions will carry out the relocation, the reassignment, the transfer and the recruitment of the teaching staff by delegation of the Secretary of Education.
See Addendum Report Evidence 4.2.

A frequent situation in Puerto Rico -a large and centralized system of education- is that teachers remain working within the public system but can be moved to a different school district or region. That decision is not in the teachers' control, nor the school principals, but in the regional director's power. According to school principals - employers- "Being an effective teacher does not warranty to be retained in the school; it depends on the reorganization and

consolidation politics in the PRDE." Jaime Gabriel Pérez, UGHS principal (personal communication, November 7, 2017).

4. Evidence 4.2.3, Completers Teaching Effectiveness, needs a year identifier and is incomplete

This figure's data correspond to the Department of Education teacher evaluations from 2015-2016. The evidence was corrected.

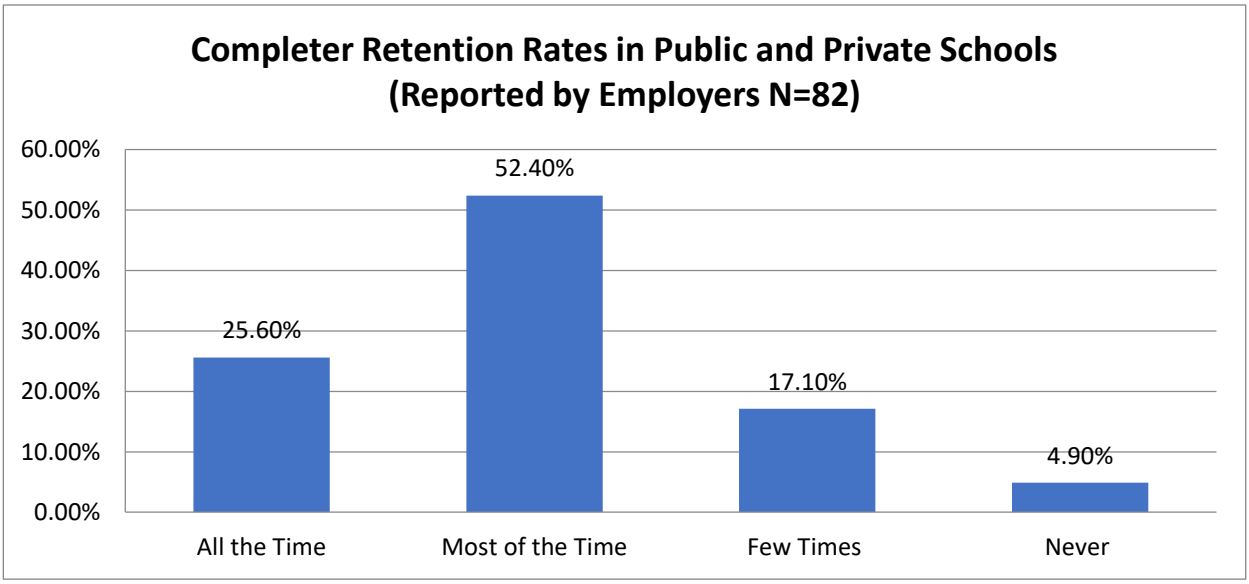
5. Evidence in 4.2.6 is labeled as 4.2.7, missing evidence for retention, effectiveness and dissemination

A possible misinterpretation of an evidence occurred in SSR Evidence 4.1. CAEP reviewers indicated that 48% of the teachers of the San Juan municipal system are EMHCE completers. What the evidence states is that 48% of the teachers currently working in the San Juan municipal system are EMHCE completers.

Evidence is mislabeled; the correct label should be 4.2.6. The retention information presented in this evidence corresponds to San Juan municipal schools (SJMS). This information indicated that 28% of our completers, currently working in the SJMS, have been teaching for 5 years or more.

6. What are reasons employers did not promote or re-employ program completers?

The following figure describes the retention rates for teaching jobs of EMHCE completers. As we can see, the majority of employers (78%) reported that our completers retain their teaching jobs all the time (25.6%) or most of the time (52.40%). The numbers of teachers that retain their jobs might be affected by transitory teacher positions and the current island's economical background. Also, the current changes in the public department of education have caused many schools to close, making steady teaching positions less available for island educators. Therefore, despite our completers having high retention rates, we believe they could be higher and are affected by the current island's economic situation.




7. What data indicates that the EPP has gathered data on P-12 student impact?

The current (2016-2017 school year, the evaluation system started in 2015-2016) teacher evaluation used by the Puerto Rico Department of Education (PRDE) is composed of two compound scores that sum a total of 100. Eighty percent is attributed to teacher performance, and twenty percent to the completer's student's growth and performance scores in national achievement test. It's important to mention that not all teachers are assigned the twenty percent score; this is justified by the PRDE with the argument that some courses have no impact on national standardized achievement test. The PRDE shared information of a small sample (58 novice completers) that was assigned the twenty percent score to their teacher evaluation. Table 1 shows the sample distribution in the p-12 system.

**Table 1: Novice Completer's Students Growth and Performance Scores (n=58)**

| School Level of Teachers from Sample | Frequency (percentage) |
|---|---|
| Elementary Education (PK-6$^{TH}$) | 19; (32.76%) |
| Secondary Education (7$^{th}$ -12$^{th}$) | 33; (56.90%) |
| Arts | 1; (1.72%) |
| Physical Education | 2; (3.45%) |
| Did not specify | 3; (5.17%) |

*The Arts and Physical Education courses are offered at both elementary and secondary levels; therefore, they could not be identified as such.

The sample given by the PRDE has teachers from both Elementary Education (Pk-6) and Secondary Education (7-12). Some courses were listed separately because they are offered at both instances and could not be classified properly. The results from the PRDE evaluations revealed a 6.83 mean score (out of 18) for the student growth and performance with a standard deviation of 3.69.

It is difficult to believe that these scores truly reflect the impact our completers have on student's achievement. Since their conception in the 2015 this score has been highly criticized and is currently being assessed because it is affecting current teacher evaluations by dragging down their score despite having an excellent performance. The DEPR is considering reducing the impact of this score from 20% to 15% due to its negative effect on teacher evaluations. The variable currently measure for student growth and achievement needs to consider the social and economic outline of Puerto Rican students. In the following section we will discuss a correlation analysis between teacher performance scores and their student growth on achievement scores to highlight the independence of these two variables.

**Introduction:** A correlation analysis was conducted among 59 evaluations of completers working in the PRDE. The teacher evaluations currently used are divided into three scores. The Teacher Performance Scores (TPS), which evaluates the completers execution in the classroom, the Student Growth and Performance Score (SGPS), which represents the students' performance in national academic achievement test, and the Student and Teacher Performance Joint Score (STPJS) which represents a combined score of the two past scores with an 80 percent weight given to TPS and 20 percent given to SGPS. The main purpose of this analysis was to determine if TPS is related SGPS. A positive relationship between these variables would suggest that as completer performance goes up so would the students' performance and growth scores in national academic achievement test.

As it was mentioned earlier, the sample obtained from EPP completers working in the PRDE revealed that most obtained scores that categorized them as Excellent and Competent in their labor as teachers. Nevertheless, SGPS for the sample obtained were rather low (M=6.78 out of 20; SD=3.70) Therefore, it is pertinent to figure out the relationship between EMHCE completers performance and that of their students. We believe SGPS is not related to TPS. Consequently, SPGS might not be an accurate predictor of the completers' impact in the student's growth and academic performance. We believe variables like, parents' education, economic background, and social influence, among others, are more important predictors of students' scores.

**Assumptions**

To assess the correlation between these variables we proposed a Pearson correlation but there were univariate outliers in the student performance scores (lower than 3.29), therefore this

type of correlation might be biased. As a result, we conducted a Spearman correlation, which is unaffected by outliers.

**Spearman Correlation Analysis**

A Spearman correlation analysis was conducted among TPS, SGPS and TSJPS. Cohen's standard was used to evaluate the strength of the relationships, where coefficients between .10 and .29 represent a small effect size, coefficients between .30 and .49 represent a moderate effect size, and coefficients above .50 indicate a large effect size (Cohen, 1988).

**Results:** As expected there is a significant positive correlation between TPS and the SGPS ($r_s$ = 0.66, $p$ < .001) (d=.66) and between SPS and TSJPS ($r_s$ = 0.61, $p$ < .001) (d=.61). This correlation is due to the nature of the TSJPS which is the sum of the latter two scores. As we hypothesized we found no significant correlation between TPS and SGPS. This result suggests that students' scores in national test are unrelated to the performance scores of their teachers. Therefore, we must consider other variables that might have a stronger impact on the students' performance and growth scores. Teacher performance does not correlate with student growth and performance scores, which evidences the difficulties in attributing the low scores to our completers.

Spearman Correlation Matrix among, teacher performance score, student performance score, and teacher and student performance score.

| Variable | 1 | 2 | 3 |
|---|---|---|---|
| Teacher Performance Scores (TPS) | - | | |
| Student Performance and Growth Scores (SPGS) | -0.08 | - | |
| Teacher and Student Performance Joint Scores (TSPJS) | 0.66 | 0.61 | - |

*Note.* The critical values are 0.26, 0.33, and 0.42 for significance levels .05, .01, and .001 respectively.

## References

Cohen, J. (1988). *Statistical power analysis for the behavior sciences* (2nd ed.). St. Paul, MN: West Publishing Company.

Conover, W. J., & Iman, R. L. (1981). Rank transformations as a bridge between parametric and nonparametric statistics. *The American Statistician, 35*(3), 124-129.

George, D. & Mallery, P. (2016). *SPSS for Windows step by step: a simple guide and reference, 11.0 update* (14th ed.). Boston, MA: Allyn and Bacon.

Intellectus Statistics [Online computer software]. (2017). Retrieved from: https://analyze.intellectusstatistics.com/

Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: what can be done? *Assessment & Evaluation in Higher Education*, 301-314.

Westfall, P.H., & Henning, K. S. S. (2013). *Texts in statistical science: Understanding advanced statistical methods.* Boca Raton, FL: Taylor & Francis.