

The Relationship Between Student Grade Point Average, Principal Internship Mentor’s Assessment Scores and School Leaders Licensure Assessment Scores

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ABSTRACT

This study looks at the relationship between two independent performance indicators for educational leadership graduate students at a University in the Southeast region of the United States compared to the student results on a national licensure assessment. The results of the study will be used to help establish the effectiveness of the current principal internship program, and provide suggestions for program improvement. The researchers ran Pearson’s r correlations between student cumulative grade point averages (CGPA) and scores received during the internship by mentoring principals on the Principal Internship Mentor’s Assessment (PIMA) to student results on the School Leaders Licensure Assessment (SLLA) to look for trends in scores and determine if either variable could be a predictor of student success on the SLLA. The study found a weak positive correlation between student CGPA and the SLLA scores, and no correlation between the PIMA scores and SLLA results.

INTRODUCTION

For over a decade public school systems in the United States have seen a progressive increase in the level of accountability placed on educators for student success. One of the latest trends in this area is linking teacher evaluations, in part or whole, to student results on standardized tests. Not only are teachers now being held much more accountable for student results, but school administrator evaluations in many states are currently in the process of being revamped to include performance indicators related to student success as part of the annual review of school-based administrators as well. This increase in focus on accountability in education is not limited to only pre-k – 12 schools; the trend is slowly making its way into higher education as well through national licensure assessments and national accreditation mandates.

School leaders are a pinnacle piece when determining student success. In Marzano, McNulty, and Waters publication, *School Leadership That Works: From Research to Results*, the authors noted that “given the perceived importance of leadership, it is no wonder that an effective school principal is thought to be a necessary precondition for an effective school.” (2005, p. 6). Because school leaders will soon be held even more accountable than ever before for the success of their students as primarily measured on standardized tests, it is incumbent on university school leadership preparation programs to ensure they are preparing future leaders with the tools needed to succeed in the ever-changing landscape of public education. Principal preparation programs need to be standards-based, and have a focus towards continuous improvement in order to provide the strongest foundation available to our future school leaders.

PURPOSE

This study looks at the relationship between two independent performance indicators for educational leadership graduate students at a University in the Southeast region of the United States compared to the student results on a national licensure assessment. Several studies have been conducted to analyze the effectiveness of principal internship programs, yet, surprisingly little research has been conducted to assess the performance of principal internship programs as they relate to student scores on the School Leaders Licensure Assessment (SLLA).

The researchers analyzed student cumulative grade point averages (CGPA) and scores received during the internship by mentoring principals on the Principal Internship Mentor's Assessment (PIMA) to student results on the SLLA to look for trends in scores and determine if either variable could be a predictor of student success on the SLLA. The results of the study will be used to help establish the effectiveness of the current principal internship program, and provide suggestions for program improvement. As a final piece of the study, the researchers also investigated the relationship between student CGPA and scores received during the internship by mentoring principals on the Principal Internship Mentor's Assessment (PIMA).

RATIONALE AND SIGNIFICANCE OF THE STUDY

There is a need to compile a more extensive knowledge base of the relationship between student grade point averages, evaluations of principal interns by their mentor, and scores on the SLLA for educational leadership preparation programs. The literature is scarce for programs that study their own data for making improvements. Requirements for national accreditation are changing the landscape holding programs accountable for assessing outcomes that are standards based utilizing valid and reliable measures. This study answers this concern with quantitative measures, statistical application, and recommendations for improvement. Programs can replicate this study for their own review and improvement.

RESEARCH QUESTIONS

1. Is there a correlation between the scores students receive on the Principal Internship Mentor's Assessment (PIMA) and the student's score on the School Leaders Licensure Assessment (SLLA)?
2. Is there a correlation between the student's final cumulative grade point average (CGPA) and the student's score on the School Leaders Licensure Assessment (SLLA)?
3. Is there a correlation between the student's final cumulative grade point average (CGPA) and the scores students receive on the Principal Internship Mentor's Assessment (PIMA)?

NULL HYPOTHESES

1. There is no correlation between the scores students receive on the Principal Internship Mentor's Assessment (PIMA) and the student's score on the School Leaders Licensure Assessment (SLLA).
2. There is no correlation between the student's final cumulative grade point average (CGPA) and the student's score on the School Leaders Licensure Assessment (SLLA).
3. There is no correlation between the student's final cumulative grade point average (CGPA) and the scores students receive on the Principal Internship Mentor's Assessment (PIMA)

LITERATURE REVIEW

There has been a call for reform in the ways that school leaders are prepared (Levine, 2005; Cunningham, 2007). Effectively leading 21st Century Schools compels universities to continuously improve their preparation programs. The Wallace Foundation (2012) asserts that raising the quality of leadership preparation for principal certification should be standards based. Engler (2004), Ricken (2007), Babo (2010), Forman & Soloff (2010), and Owens & Valensky (2011) agree focusing on the 1996 Interstate Leaders Licensure Consortium (ISLLC) standards (Council of Chief State School Officers) for designing educational leadership programs. Updated by the National Education Policy Board in 2008, the ISLLC standards have been adopted by over 40 states and a dozen professional organizations (Waters & Grubb, 2004; Schrum & Levin, 2009; & Forman & Soloff, 2010). Accrediting organization such as the Teacher Education Accreditation Council (TEAC) (2005) specifically identify the ISLLC standards as a way to address required quality principles for what an educational leadership preparation program may claim about its graduates. TEAC accredits programs and relies on valid and reliable evidence as part of its requirements for a favorable accreditation decision.

In TEAC's Guide to Accreditation (2012), there are twenty points of evidence that can support a program's claims that its graduates are competent, caring, and qualified. Although not all categories of evidence may be used, three areas that are available to most programs are student's cumulative grade point averages, ratings on clinical internships in the field (i.e., PIMA), and student scores on standardized license or board examinations (i.e., SLLA). Key to each of the types of evidence would be that the program derives each measurement from the ISLLC standards.

This study uses the ISLLC standards to provide a basis for quantitative analysis of three measures. First, the student's cumulative grade point average (CGPA) is derived from the entire curriculum in the educational leadership preparation program. All courses are aligned with the ISLLC standards. Second is an instrument designed by the faculty and aligned with ISLLC standards to score student success in a field-based internship. This measure is the Principal Internship Mentor's Assessment (PIMA). Third are student scores on the national assessment for school leadership preparation, the School Leaders Licensure Assessment (SLLA). The three measures have been used to attain TEAC national accreditation (Arroyo, Koonce, & Hanes, 2008), and continue to be used for data driven program improvement.

CGPA

The cumulative grade point average (CGPA) is a measure of a student's academic achievement that can be earned in a required ISLLC-based educational leadership program of studies. It is calculated by dividing the total number of grade points received by the number of credits attempted (TheFreeDictionary, 2012). Bacon and Bean (2006) state that, "GPA often correlates highly with variables of interest to educational researchers and thus offers the potential to greatly increase the statistical power of their research studies" (p. 36). Moore and Shulock (2009) noted predictive values of high grades in coursework and high CGPA increases over time for success in program completion and attaining a degree.

PIMA

Most educational leadership preparation programs require the mentoring principal to evaluate the intern's performance (Cunningham, 2007). There are likely as many different formative and summative assessment formats as there are programs. The ideal format should link the assessment categories to the

ISLLC standards. The Education Leadership Constituent Council (ELCC) standards are often used for mentor's assessments (National Policy Board for Educational Administration, 2002). ELCC are basically the ISLLC standards with an additional 7th standard focusing on the internship for advanced programs in educational leadership.

The sample used in this study for measuring student success in the internship is the Principal Internship Mentor's Assessment (PIMA) (Arroyo, Koonce, & Hanes, 2008). The PIMA is a 24-item Likert-type scale instrument derived from the ISLLC standards. There are four items per standard with each item being rated on a 5-point score ranging from "fails to address/no evidence of knowledge, understanding, and/or application" to "very specific/convincing evidence of knowledge, understanding, and/or application" (Hessel & Holloway, 2002, p.24). All assessment items are taken from "Components of Professional Practice for School Leaders" (p.27), each directly linked to an ISLLC standard.

SLLA

The School Leaders Licensure Assessment (SLLA) which is derived from the ISLLC standards is a major test for granting principal certification and/or endorsement in a number of states. The SLLA is used as a measure to determine if "entry-level educational leaders" have the knowledge necessary for their professional practice (Educational Testing Service, 2012, p. 1). The assessment is divided into two sections (100 multiple choice questions and 7 constructed response questions), with a focus on content areas including: (a) vision and goals; (b) teaching and learning; and (c) the educational system. This study uses SLLA scores as quantitative, summative assessments. Ellett (1999) and Reese & Tannenbaum (1999) state that the SLLA designers used the ISLLC standards to construct the instrument.

RELATED STUDIES

Research is scarce on university educational leadership preparation programs that study their own assessments. It is an emerging stream of information due in part to requirements for national accreditation based on outcome measures of students or graduates. There is a lack of empirical evidence to document measures for correlating the SLLA with a principal mentor's assessment or SLLA with CGPA. Selected literature from the field primarily addresses CGPA but other reports with additional data are being developed.

Wilmore's (2002) study addressed a number of factors as predictors of certification examination success in differing principal preparation programs at a large urban university. One factor used was undergraduate CGPA. In Wilmore's study the undergraduate CGPA was not a predictor of the Examination for the Certification of Educators in Texas (ExCET). The ExCET is used in Texas to certify school administrators. Mountford, Ehlert, Machell, and Cockrell (2007) found the CGPA was "ineffective for predicting student performance" (p. 195) when used as a measure for selecting into graduate programs as a part of the admissions process. Graduate grade point averages (CGPA) were correlated with the Miller Analogies Test (MAT) for admission to a doctoral program in educational leadership in Young's (2007) study. Also included in the study were undergraduate cumulative grade point averages. Canonical Discriminant Coefficient measures were calculated and the MAT (.82) was the single most important influence relative to unique contribution for academic predictors. However, for the second discriminant, graduate CGPA (.93) instead of undergraduate CGPA (.007) emerged as the most unique contributor.

The most promising related research was found in a Teacher Education Accreditation Council (TEAC) Inquiry Brief Proposal from New Jersey City University (Maye, Phifer, & Rogers, 2011). The

program is “planning to study correlation between grades from internship and cumulative CGPA and correlations of candidates’ SLLA scores to CGPA” (p, 24). The faculty is also looking at correlations with individual scores for each ISLLC standard that is now available through Educational Testing Services (ETS) SLLA reports. The outcomes from these correlations are part of the emerging data-base coming as the result of national accreditation accountability measures.

SUMMARY

Much information is available on the importance of designing school leadership preparation programs using the ISLLC standards that informs student CGPAs and includes an evaluated principal internship. A 2005 Wallace Foundation report (Adams & Copeland, 2005) states that it is also an accountability measure to “require a demonstration of candidates’ qualifications via a test of organizational-and learning-focused knowledge and skills that are central to good entry level practice” (p. 49). The SLLA is the measure for school leadership preparation. Sparse information is available on how they relate. This study takes all three (CGPA, PIMA, and SLLA) and tests the relationship between them.

METHODOLOGY

Participants

A total of ninety (90) educational leadership program completers were studied in this research from a single university in southeast Virginia over a three year period. The number of participants does not reflect all students who completed the program during the timeframe of the study, but it does encompass all program completers who took the SLLA assessment at the conclusion of the program, and reported the scores back to the university. There were approximately twenty students who either did not complete the principal internship, or take the SLLA exam at the time of the study, and were therefore excluded from the dataset. A total of eighteen (18) students did have SLLA scores and recorded CGPAs, but did not have a completed PIMA. These students were excluded from the SLLA-PIMA correlation.

No compensation was provided to the participants, and they were not interviewed, tested or surveyed beyond the normal program requirements. The participant group makes up a purposeful sample consisting of all students that completed the internship program, and who also took the SLLA assessment between September 2009 and August 2012.

Data Collection and Analysis

Data were collected three ways for this study. The Mentor’s Assessment data were collected online via Survey Monkey through the mentoring principals’ completion of the Principal Internship Mentor’s Assessment (PIMA). The data from the School Leaders Licensure Assessment (SLLA) were collected from reports sent directly to the university from the Educational Testing Service (ETS). Cumulative grade point averages were computed through the university’s Banner data collection and storage program. Data were then organized into an Excel spreadsheet entered into the Statistical Package for the Social Sciences (SPSS) for analysis.

The PIMA is utilized as a summative evaluation for the internship. “These performance indicators are used by the university instructor to designate the intern’s level of performance on each of the components of the dimensions of school administrative factors” (Cunningham, 2007, 22). The outcomes provide evidence required for a grade in the principal internship course and data for accreditation

evidence and program improvement. The four items per standard and the 24 components in the design are derived directly from the ISLLC standards. The items and the instrument were reviewed for content validity by the program faculty. The Educational Focus Group (Cannizzaro, 2007) provided feedback on the form and confirmed its content validity since participants were practicing experts in the field. To address inter-rater reliability, sets of two raters used the form and discussed the outcomes in the Focus Group and the four teams of practitioners rated the PIMA similarly (Cannizzaro, 2007). Subjective scoring (Inter-rater-reliability/consistency between tests) is helped when usable guidelines for scoring are developed such as the scoring rubric for the PIMA.

To test the null-hypothesis that there is no correlation between the SLLA scores, student CGPAs, and the Mentor’s Assessment scores, three separate bivariate correlations were run using Pearson’s r in the SPSS software package. Pearson’s r was selected for use because, as Coladarci (et. al 2011) noted it is “by far the most frequently used correlation coefficient in the behavioral sciences.” (p. 135). The three correlations that were analyzed were as follows:

1. SLLA scores to Mentor’s Assessment scores
2. Cumulative Grade Point Average to SLLA scores
3. Mentor’s Assessment scores to Cumulative Grade Point Average

FINDINGS

SLLA and Mentor’s Assessment

A Pearson’s r correlation coefficient was computed to assess the relationship between student SLLA scores and scores students received by mentoring principals on the Principal Internship Mentor’s Assessment (PIMA). Tables 1 and 2 provide the detailed analysis from SPSS.

Table 1.

Descriptive Statistics	Mean	Std. Deviation	N
SLLA Score	173.10	8.619	90
Mentor Average	3.410739	.4855352	72

Table 2.

Correlations		SLLA Score	Mentor Average
SLLA Score	Pearson Correlation	1	.072
	Sig. (2-tailed)		.550
	N	90	72
Mentor Average	Pearson Correlation	.072	1
	Sig. (2-tailed)	.550	
	N	72	72

The analysis determined that there is no correlation between the two variables, $r = 0.072$, $n = 72$, $p = 0.550$. The results indicate that there is no relationship between how a student performs during the internship experience as scored by a mentoring principal, and the student’s results on the SLLA.

CGPA and SLLA

Pearson’s r correlation coefficient was once again computed to assess the relationship between student SLLA scores and students’ cumulative grade point averages (CGPA). Tables 3 and 4 provide the detailed analysis from SPSS.

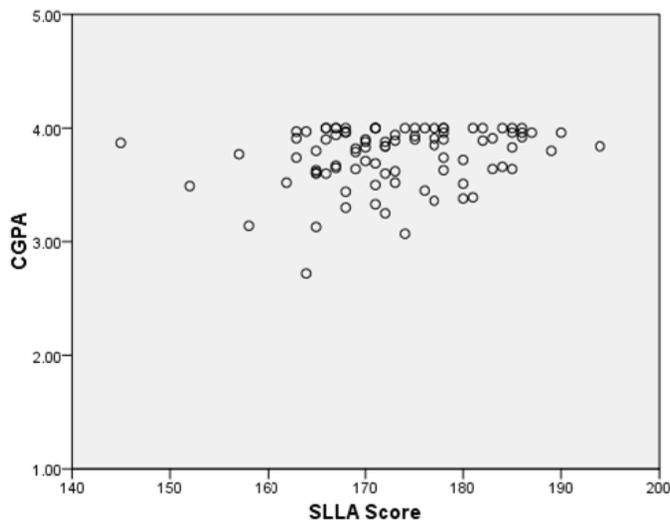
Table 3.

Descriptive Statistics	Mean	Std. Deviation	N
SLLA Score	173.10	8.619	90
CGPA	3.7604	.26053	90

Table 4.

Correlations		SLLA Score	Mentor Average
SLLA Score	Pearson Correlation	1	.228*
	Sig. (2-tailed)		.030
	N	90	90
CGPA	Pearson Correlation	.228*	1
	Sig. (2-tailed)	.030	
	N	90	90

The analysis determined that there is a weak positive correlation between the two variables, $r = 0.228$, $n = 90$, $p = 0.030$. A scatterplot summarizes the results (Figure 1).

**Figure 1.**

Mentor's Assessment and CGPA

The final Pearson's r correlation coefficient computed was to assess the relationship between a student's CGPA and scores students received by mentoring principals on the Principal Internship Mentor's Assessment (PIMA). Tables 5 and 6 provide the detailed analysis from SPSS.

Table 5.

Descriptive Statistics	Mean	Std. Deviation	N
CGPA	3.7604	.26053	90
Mentor Average	3.410739	.4855352	72

Table 6.

Correlations		SLLA Score	Mentor Average
CGPA	Pearson Correlation	1	.014
	Sig. (2-tailed)		.910
	N	90	72

Mentor Average	Pearson Correlation	.014	1
	Sig. (2-tailed)	.910	
	N	72	72

The analysis determined that there is no correlation between the two variables, $r = 0.014$, $n = 72$, $p = 0.910$. There is no relationship between how a student performs during the internship experience as scored by a mentoring principal (PIMA), and the student's cumulative grade point average (CGPA).

CONCLUSIONS AND FUTURE STUDIES

The purpose of the study was to determine if two independent assessments of student progress (PIMA and CGPA) could be used as predictors for student success on the SLLA national assessment of future school leaders. The findings from this study indicate that neither the students' CGPAs nor the students' mentor evaluations (PIMA) are correlated with the students' results on the SLLA exam. Though there was a weak, positive correlation between CGPAs and the SLLA, it was not a strong enough correlation to recommend using the CGPA as a predictor for student success on the exam.

Further studies will need to be conducted to determine if results from any specific subcategories on the SLLA correlate to the subcategories in the mentor's assessment designed to be in line with the ISLLC standards and SLLA. Additionally, student self-assessments during the internship experience could also be studied to determine if this instrument could be used as a possible predictor of student success on the SLLA in lieu of the PIMA. A follow-up study with students after they have taken the SLLA should also be conducted to review their perceptions of readiness for the exam, and identify possible areas for program improvement. Each of these areas will help the Educational Leadership Program progress down the path of continuous improvement, providing a better experience for its students.

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