Analysis of School Leaders Licensure Assessment Content Category I-V Scores and Principal Internship Self-Assessment Scores for ISLLC Standards I-V

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This study compares School Leaders Licensure Assessment (SLLA) sub-scores with principal interns' self-assessment sub-scores (ISA) for a principal internship evaluation instrument in one educational leadership graduate program. The results of the study will be used to help establish the effectiveness of the current principal internship program, performance on the School Leaders Licensure Assessment, and provide suggestions for program improvement. The researcher compared the sub-scores for the multiple choice section of the SLLA with sub-scores from the university's principal interns' self-assessments to look for correlations between the two data sets. The results indicated a positive correlation in two areas of the study.

Keywords: SLLA, SLLA Content Categories, Principal Internship Assessment, Principal Licensure, Program Improvement, School Leadership Preparation.

Introduction

The use of data for program improvement is becoming commonplace not only in prek-12 school systems, but also in university programs across the nation. No longer is it acceptable to simply teach graduate classes and assume the students have learned what they need to succeed in their fields of study; educational programs now make use of national standards when developing course content, and often these standards are linked to some form of national assessment. This is true of most educational leadership programs in the United States, as a part of accreditation requirements from national

accrediting agencies (TEAC, 2012). Currently 32 states require students seeking licensure in school administration to pass the School Leaders Licensure Assessment (SLLA), which is based on the Interstate School Leaders Licensure Consortium (ISLLC) standards (ETS, 2012). The ISLLC standards were designed to provide the framework for the preparation of school principals (Hessel and Holloway, 2002).

Real program improvement does not happen if there is no accountability for the program learning outcomes. Knowing this, national and regional accrediting agencies such as the Council of Accreditation for Educator Preparation (CAEP) and the Southern

Association for Colleges and Schools (SACS) have mandates to use student learning outcomes as key elements in supporting program improvement initiatives. The challenge for educational leadership programs in the past has been a lack of useful data related to student outcomes on the SLLA exam.

ETS has been providing universities with overall student scores on the SLLA for more than a decade. Though overall results can be informative to some extent, it provides leadership programs with very little useful data when it comes to program improvement. Luckily this form of reporting has recently changed for the better. Beginning in the 2009-10 testing cycle, ETS began reporting sub-scores on the SLLA to participating universities. These scores provide principal preparation programs with a wealth of new data to conduct research, particularly for those programs that claim the Interstate School Leaders Licensure Consortium (ISLLC) standards as their learning outcomes. The availability of SLLA Content Category scores provides a key database for the study of principal preparation program outcomes.

Purpose

This study looks at the relationship of five variables found in the SLLA compared to five variables on an independent performance indicator, the Internship Self-Assessment (ISA), for educational leadership graduate students at one university in the southeast United States. At the time of this study, very little research was found to assess the performance of principal internship programs as they relate to candidate sub-scores on the SLLA, and none could be located as it relates to student self-assessment scores.

In this study, an analysis was conducted to compare student self-assessment scores for ISLLC Standards 1-5 received during the principal internship on the ISA, with student results from Content Categories I-V found in the SLLA. The results of the study will be used to help establish the effectiveness of the current principal preparation program at the university, provide suggestions for improvement, and recommendations for further study.

Research Question:

1.   Is there a correlation between individual sub-scores 1-5 given by students on the Principal Internship Self-Assessment, and corresponding sub-scores on the School Leaders Licensure Assessment?

Null Hypothesis:

1.   There is no correlation between individual sub-scores 1-5 given by students on the Principal Internship Self-Assessment, and corresponding sub-scores on the School Leaders Licensure Assessment.

Definition of Terms

Interstate School Leaders Licensure Consortium (ISLLC) Standards. The Interstate School Leaders Licensure Consortium (ISLLC) developed six standards for future school leaders where the focus is on student success (Council of Chief State School Officers, 1996). Engler (2004) noted that the ISLLC standards are research-based, with the knowledge, dispositions, and performances necessary for exemplary school leadership. When taken as a whole, they are aligned with four broad themes: a vision for success, a focus on teaching and learning, an involvement of all stakeholders, and a demonstration of ethical behavior (Hessel & Holloway, 2002). The ISLLC standards have become the foundation for many principal preparation programs across the United States; at least 35 states use the ISLLC standards to guide policy and practice as it relates to principal preparation programs (Hale and Moorman, 2003).

The six standards include: (1) the vision for learning; (2) the culture of teaching and learning; (3) the management of learning; (4) relationships with the broader community to foster learning; (5) integrity, fairness, and ethics in learning; and (6) the political, social, economic, legal, and cultural context of learning (Council of Chief State School Officers, 1996).

Intern's Self-Assessment (ISA) Sub-scores (Scores for Standards). The instrument for measuring student success in the internship for

this study is the Intern's Self-Assessment (ISA) which was developed, validated, and tested for reliability by the faculty in the leadership program (Arroyo, Koonce, & Hanes, 2008 and Koonce & Kelly, 2012). The ISA is a survey which contains 24-items using a Likert-type scale instrument derived from the ISLLC standards. There are four items per standard (total six standards) with each item rated on a 0 – 4 point scale 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). The items in the assessment came from the "Components of Professional Practice for School Leaders" (p.27). Each sub-score on the ISA is directly linked to a correlating ISLLC standard.

School Leaders Licensure Assessment (SLLA). The School Leaders Licensure Assessment (SLLA) is the primary test used for granting principal certification and/or endorsement in over 32 states (Adams & Copeland, 2005). Ellet (1999) and Reese & Tannenbaum (1999) both report that the SLLA designers used the ISLLC standards to construct the SLLA instrument. 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 current assessment is divided into two sections, 100 multiple choice questions and 7 constructed response questions. The official score range for candidates on the SLLA is between 120 and 200 points. States utilizing the SLLA for licensure/endorsement set their own cut score (Educational Testing Service, 2012-2013).

School Leaders Licensure Assessment Sub-scores (Content Categories I-VI). The SLLA is grouped into six categories with a separate score for each category. The six categories align to the six ISLLC standards: (1) vision and goals; (2) teaching and learning; (3) organizational systems and safety; (4) collaborating with key stakeholders; (5) ethics and integrity; and (6) education system (Tannenbaum & Robustelli, 2008). There are separate scores for the multiple-choice and constructed-response questions in two of the

categories (Educational Testing Services, 2009). For testing and reporting purposes, the SLLA is broken down into two sections; Section I consists of 100 multiple choice questions, and Section II contains seven constructed response questions. In Section I, the test covers material from ISLLC standards I-V. ISLLC standards I, II and VI are covered in the constructed response section of the assessment (Educational Testing Services, 2012-13, p. 11). This study utilized only the SLLA scores in Content Categories I-V because Section I of the SLLA (multiple choice responses) specifically aligns with ISA Standards 1-5. Constructed response questions (Section II of the SLLA) were not used because constructed responses are open to some level of subjectivity in grading.

Literature Review

Published research that compares SLLA results to principal preparation programs still remains scarce in the field of education. Though most educational leadership programs are required to track student progress and demonstrate effectiveness to acquire national accreditation, this data is rarely published in professional journals. Even less research is available regarding SLLA sub-scores as they relate to leadership program initiatives. There is minimal empirical evidence to document measures for correlating the SLLA sub-scores with another variable, particularly with a student's self-assessment while in a leadership program, and no research could be found that looks at an intern's self-assessment as it compares to his/her results on the SLLA.

Kelly & Koonce (2012) did conduct a study related to overall SLLA results and intern self-assessments. The results found no correlation between SLLA overall scores and the overall scores on the interns' self-assessments. The recommendations from this study determined a need to disaggregate the data further and recommended correlating sub-scores on the ISA with sub-scores on the SLLA. Koonce and Kelly (2013) also studied mentor's assessment scores for interns derived from practicing principals in the field, and compared the sub-score results to sub-scores on the SLLA. The results indicated no correlations between the mentoring

principals' scores during the internship experience and student sub-score results on the SLLA.

The lack of studies related to principal internship preparation programs and sub-score results on the SLLA does not diminish the need for well-developed internship programs; there are numerous reports on the importance of quality field experiences that are based on the ISLLC standards (Southern Region Education Board, 2005; Southern Region Education Board 2007; Davis, Darling-Hammond, LaPointe & Meyerson, 2005; Davis, Darling-Hammond, LaPointe & Meyerson , 2007; & Hernandez, Roberts & Menchaca, 2012). In order for these programs to be effective, they must take an honest look at student results, and make program decisions for improvement based on this data. That is the premise for this research.

Methodology

Participants

A total of seventy-four (74) graduate students who completed the educational leadership program were studied in this research from a single university over a three year period. Not all program completers were included in the research sample, but it does include all program completers who successfully completed the principal internship, took the SLLA assessment at the conclusion of the program, and reported the scores back to the university. Approximately thirty students who were program completers in the date range of the study either did not complete the principal internship, or take the SLLA exam, and were therefore excluded from the dataset and not included in the study.

Participants were not compensated in any form, 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 2010 and May 2013.

Instruments

Two measures utilized in this study were scores from the five content categories (I-V) found in the SLLA and the six scoring standards (1-5) found in the ISA. Content categories for both instruments are directly aligned with the first five ISLLC standards. Tannenbaum & Robustelli (2008) established content validity for the most recent version of the SLLA through occupational credentialing and a job survey made up of practitioners and experts from the field. Performance standards were broken down for each of the sub-categories. Content validity for the ISA was established by Cannizzaro (2007). Sets of two raters used the ISA and discussed the outcomes in their focus groups. In addition, a rubric was in use that assured closer alignment with different scorers. Practitioners rated the ISA similarly. Subjective scoring (inter-rater-reliability/consistency between tests) is helped when usable guidelines for scoring are developed such as the use of the scoring rubric for the ISA (Koonce & Kelly, 2012).

Data Collection and Analysis

Data were collected using the SLLA sub-scores (Categories I-V) and the sub-scores on the ISA (Standards 1-5) as identified from the six ISLLC standards. Sub-scores were matched for the two measures, SLLA Category I with ISA Scoring Standard 1, followed by SLLA II with ISA 2 and the same matching with remaining Categories III-V and Scoring Standards 3-5.

All data were reviewed for accuracy prior to inclusion in the study. Results for each student on the ISA and the SLLA were loaded into an excel spreadsheet. Any students who either did not have scores on the ISA, or sub-scores on the SLLA reported back to the university were removed from the data set. The names of students were then redacted from the spreadsheet and replaced with numeric coding as identifiers. The data set was then uploaded into the Statistical Package for the Social Sciences (SPSS) for analysis.

To test the null-hypothesis that there is no correlation between the student SLLA sub-scores, and the student Principal Intern Self-

Assessment sub-scores, five separate bivariate correlations were run using Pearson's *r* in the SPSS software package. Coladarci (et. al 2011) noted that Pearson's *r* is "by far the most frequently used correlation coefficient in the behavioral sciences." (p. 135). Significance was determined at the 0.05 level. If the Pearson's *r* test revealed a difference significant at the 0.05 level, the Bonferroni correction to α was implemented (Simon, 2008) to reduce the possibility of a Type I error. In addition, the researchers also reviewed the effect size to help analyze the level of correlation. Cohen (1988) defined effect sizes as "small, d = .2," "medium, d = .5," and "large, d =.8".Thus, a finding of .2 would indicate a small correlation between the variables, while a finding of .8 or greater would indicate a very large or significant correlation between the two groups.

The five correlations that were analyzed were as follows:

1. SLLA sub-scores for ISLLC Standard I to ISA sub-scores for ISLLC Standard I.
2. SLLA sub-scores for ISLLC Standard II to ISA sub-scores for ISLLC Standard II.
3. SLLA sub-scores for ISLLC Standard III to ISA sub-scores for ISLLC Standard III.
4. SLLA sub-scores for ISLLC Standard IV to ISA sub-scores for ISLLC Standard IV.
5. SLLA sub-scores for ISLLC Standard V to ISA sub-scores for ISLLC Standard V.

Findings

SLLA Sub-score I and ISA Sub-score I

A Pearson's r correlation coefficient was computed to assess the relationship between student SLLA sub-scores and sub-scores students assigned themselves on the Internship Self-Assessment (ISA) for ISLLC Standard I. Tables 1 and 2 provide the descriptive statistics and a detailed analysis from SPSS.

Table 1

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SLLA 1	74	6	14	10.15	1.878
Mean 1	74	2	4	3.46	.528
Valid N (listwise)	74				

Table 2

Correlations

		SLLA 1	Mean 1
SLLA 1	Pearson Correlation	1	.123
	Sig. (2-tailed)		.297
	N	74	74
Mean 1	Pearson Correlation	.123	1
	Sig. (2-tailed)	.297	
	N	74	74

The analysis determined that there is no correlation between the two variables, r = 0.297, n = 74, p = 0.123. The results indicate that there is no relationship between how students self-evaluate themselves for ISLLC Standard I on the ISA, and the students' sub-score results on the SLLA for ISLLC Standard I.

Table 3
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SLLA 2	74	9	20	14.89	2.615
Mean 2	74	3	4	3.36	.413
Valid N (listwise)	74				

Table 4
Correlations

		SLLA 2	Mean 2
SLLA 2	Pearson Correlation	1	.626**
	Sig. (2-tailed)		.000
	N	74	74
Mean 2	Pearson Correlation	.626**	1
	Sig. (2-tailed)	.000	
	N	74	74

**. Correlation is significant at the 0.01 level (2-tailed).

The analysis determined that there is a correlation between the two variables, r = 0.000, n = 74, p = 0.626. The results indicate that there is a positive correlation between how students self-evaluate themselves for ISLLC Standard II, and the students' sub-score results on the SLLA for ISLLC Standard II. As the initial test revealed a level of significance at the 0.05 level, the Bonferroni adjustment was applied. Since the researchers were studying 5 separate correlations, the Bonferroni application results in using 0.01 as the level of significance. In the case of ISLLC Standard II, this level ultimately determined that there was a correlation between the two variables (r=0.000), with a medium to large (0.626**) initial effect size. The results indicate that there is a positive relationship between how students self-assess their performance during the internship experience for ISLLC Standard II, and the students' sub-score results on the SLLA for ISLLC Standard II.

SLLA Sub-score II and ISA Sub-score II

A Pearson's r correlation coefficient was computed to assess the relationship between student SLLA sub-scores and sub-scores students assigned themselves on the Internship Self-Assessment (ISA) for ISLLC Standard II. Tables 3 and 4 provide the descriptive statistics and a detailed analysis from SPSS.

SLLA Sub-score III and ISA Sub-score III

Tables 5 and 6 provide the results from the Pearson's *r* correlation coefficient computed to assess the relationship between student SLLA sub-scores and sub-scores students assigned themselves on the Internship Self-Assessment (ISA) for ISLLC Standard III.

Table 5
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SLLA 3	74	6	12	9.54	1.563
Mean 3	74	1.50	4.00	3.5282	.53355
Valid N (listwise)	74				

Table 6
Correlations

		SLLA 3	Mean 3
SLLA 3	Pearson Correlation	1	.017
	Sig. (2-tailed)		.885
	N	74	74
Mean 3	Pearson Correlation	.017	1
	Sig. (2-tailed)	.885	
	N	74	74

The analysis determined that there is no correlation between the two variables, r = 0.885, n = 74, p = 0.017. The results indicate that there is no relationship between how students self-evaluate themselves for ISLLC Standard III on the ISA, and the students' sub-score results on the SLLA for ISLLC Standard III.

SLLA Sub-score IV and ISA Sub-score IV
Pearson's r correlation coefficient was again computed to assess the relationship between student SLLA sub-scores and sub-scores students assigned themselves on the Internship Self-Assessment (ISA) for ISLLC Standard IV. The results are displayed in tables 7 and 8.

Table 7
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SLLA 4	74	7	17	13.19	2.137
Mean 4	74	1.5	4.0	3.203	.4168
Valid N (listwise)	74				

Table 8
Correlations

		SLLA 4	Mean 4
SLLA 4	Pearson Correlation	1	.670[**]
	Sig. (2-tailed)		.000
	N	74	74
Mean 4	Pearson Correlation	.670[**]	1
	Sig. (2-tailed)	.000	
	N	74	74

**. Correlation is significant at the 0.01 level (2-tailed).

The analysis determined that there is a correlation between the two variables, r = 0.000, n = 74, p = 0.670. The results indicate that there is a positive correlation between how students self-evaluate themselves for ISLLC Standard IV, and the students' sub-score results on the SLLA for ISLLC Standard IV. As the initial test revealed a level of significance at the 0.05 level, the Bonferroni adjustment was once again applied at the 0.01 level of significance. In the case of ISLLC Standard IV, this level ultimately determined that there was a correlation between the two variables (r=0.000), with a medium to large (0.670**) initial effect size. The results indicate that there is a positive relationship

between how students self-assess their performance during the internship experience for ISLLC Standard IV, and the students' sub-score results on the SLLA for ISLLC Standard IV.

SLLA Sub-score V and ISA Sub-score V

The final Pearson's r correlation coefficient was computed to investigate the relationship between student SLLA sub-scores and sub-scores students assigned themselves on the Internship Self-Assessment (ISA) for ISLLC Standard V. The results are displayed in tables 9 and 10.

Table 9
Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SLLA 5	74	8	17	12.32	2.041
Mean 5	74	2	4	3.62	.489
Valid N (listwise)	74				

Table 10
Correlations

		SLLA 5	Mean 5
SLLA 5	Pearson Correlation	1	-.122
	Sig. (2-tailed)		.300
	N	74	74
Mean 5	Pearson Correlation	-.122	1
	Sig. (2-tailed)	.300	
	N	74	74

The analysis determined that there is no correlation between the two variables, r = -0.122, n = 74, p = 0.300. The results indicate that there is no relationship between how students self-evaluate themselves for ISLLC Standard V on the ISA, and the students' sub-score results on the SLLA for ISLLC Standard V.

Conclusions and Recommendations

This study was an attempt to address the lack of published research available from university educational leadership preparation programs that review their own assessment data. The researcher compared the sub-scores for the multiple choice section of the SLLA with sub-scores from the university's internship self-assessment to look for correlations between the two data sets. The results indicated positive

correlations in two areas of the study. Both areas indicated a medium to large effect size, indicating a strong relationship. This indicates that the student self-assessments on ISLLC 2 and 4 could potentially be used as predictors for student outcomes on the SLLA in those areas.

Since additional relationships were not found in the other three areas of the SLLA, it is recommended that other quantitative measures be reviewed to study SLLA sub-scores and ISA sub-scores that may lead to program improvement. It is recommended the program faculty review the current rubric used by interns when completing the self-assessment to assure it clearly delineates what level of comprehension a student needs to demonstrate for each category and subsequent score. The hope that is tighter alignment to the rubric will result in stronger correlations between the SLLA and ISA scores.

In addition, it is recommended that the program faculty conduct a review of current course objectives related to all of the classes that contain ISLLC standards to ensure alignment between what is written, taught and tested. A thorough review of the program course objectives has not been conducted since the change in the SLLA exam, and as such is needed to determine if there are any areas that are being missed in the curriculum.

Finally, this study can serve as a foundation for other leadership programs to begin reviewing their own data in efforts of program improvement. The more research that is conducted in the area of principal internships and SLLA results, the better educational leadership programs will be across the nation. This in turn will lead to future administrators coming into the field more prepared for the careers in which they embark.

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Dr. MICHAEL KELLY spent 17 years as an elementary and middle school teacher, assistant principal, and principal in Virginia. Currently Dr. Kelly is in his sixth year as an Assistant Professor of Educational Leadership at Regent University, where he teaches school law, community relations and personnel supervision among other courses. He also is tasked with overseeing the principal internship program and the CAEP accreditation process for the School of Education.

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