

## Binary Logistic Regression Analysis of Instructional Leadership Factors Affecting English Language Literacy in Primary Schools

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### ABSTRACT

*This paper discusses the factors contributing to student achievement in English language literacy in primary schools within Sibu division, Sarawak, Malaysia. The study involved 694 teachers who taught in 105 lower primary schools. Binary logistic regression was applied to predict the instructional leadership's influence on student achievement in literacy. The findings revealed that one dimension of instructional leadership - supervising and evaluating instruction - emerged as strong predictors of literacy. The result indicated that schools were more than 17 times more likely to achieve 100% literacy rate when the instruction processes were supervised and evaluated by the headmasters. Supervision and evaluation of instruction had a positive influence on students' achievement for English language literacy, hence making this a possible course of action for school heads. More comprehensive studies are needed to ascertain its consistency as well as investigating other predictors for literacy.*

*Keywords: Instructional leadership; literacy; binary logistic regression; LINUS2.0*

### INTRODUCTION

Basic literacy in the English language is seen as a necessity to drive Malaysia's needs for a highly-skilled, creative and innovative workforce in an increasingly competitive 21<sup>st</sup> century global economic milieu. In fact, basic English language literacy was deemed so important that the Malaysian Ministry of Education (MoE) introduced screening for it in 2013, as part of the Literacy and Numeracy Screening (LINUS2.0) program that was first implement three years prior. Sarawak is one of the lowest performing states in Malaysia, as measured by public examinations (MoE, 2013).

Researchers like Duyar, Mina and Owoh (2019), McNeil, Lowenhaupt and Katsh-Singer (2018), Hallinger, Hosseingholizadeh, Hashemi and Kouhsari (2017) and Pan, Nyeu and Cheng (2017) had looked into instructional leadership (IL) practices and its impact on achievement. Although there had been investigations into pedagogical aspects of instructional leadership practices, few studies have made formal inquiry into instructional leadership as a predictor for basic English language literacy, especially in Sarawak. Accordingly, this study aims to contribute to the growing corpus of Malaysian instructional leadership literature, in light of the shortage of empirical studies of instructional leadership in non-Western cultural and social contexts (Qian, Walker & Li 2017). This is in line with Harris, Jones, Adams and Cheah's (2018) recommendation for more empirical enquiries into instructional leadership practices within Malaysia. As well, there is a need for more local studies to look into the research gap where studies related to the English language have only focused on secondary school and

university students, while few have been conducted on primary school students (Samuddin & Krish 2018).

To that end, the current study intends to answer the question: are the dimensions of instructional leadership predictors for literacy in primary schools? Scrutinizing how closely the school leader pays attention to the goings-on in the classroom might point towards improving the level of literacy mastery in Sarawak. This leads to the objective of this study: to ascertain the dimensions of instructional leadership that influence the achievement of English language literacy in primary schools.

## REVIEW OF LITERATURE

The review of literature for this study focuses on the links between instructional leadership and student achievement, as follows:

### INSTRUCTIONAL LEADERSHIP

Instructional leadership is a school leadership model that emphasizes on teachers' classroom practices towards improving school performance and outcomes (Hallinger & Hosseingholizadeh 2019, Hallinger, Adams, Harris & Jones 2018, Hattie 2015, Hendriks & Steen 2012). Many studies on school improvement uses Hallinger and Murphy's (1985) conceptualization of instructional leadership. The emphasis on instructional leadership has been driven by a global movement in educational reform (Pashiardis & Johansson 2016). Suggestions from empirical literature point to terms like instructional, learning-centered and educational to describe the practices that make up the core of successful school leadership. The Instructional Leadership model consisted of three components that contribute towards planning for action. These three components are namely: defining a school mission, managing the instructional program and developing a positive school learning climate.

The term instructional leadership stemmed from the effective schools' movement of the 1970s. Effective schools refer to schools that have been successful in educating their students, regardless of their socioeconomic status (Wilson 2011). The studies reported that there was no evidence of effective schools with weak leadership (Baloglu 2012). However, these early studies were not in agreement on what instructional leaders were and how they could run effective schools (Lee, Hallinger & Walker 2012). Instead, literature at the time presented the vague idea that school heads not only manage the school, but also engage in instructional leadership, with a strong emphasis on teaching and learning. This focus on mere personal traits of school heads progressed to perceivable behaviours of school head. For instance, principals of effective schools had the tendency to monitor student progress systematically and were highly visible as supervisors in this area. They were curricular development and teaching experts, with the ability to unite their staff towards a shared, common vision (Blackmore 2017). Successful school heads engaged in activities like class visitations, teaching observations, and provided feedback for the observations (Gurley, Anast-May, O'Neal, Lee & Shores 2015). Of significance is their determination to assess the achievement of fundamental objectives related to student achievement (Hallinger & Murphy 2012). Instructional leaders are assertive, strong disciplinarians whose primary foci lay in building the school culture, academic press and high expectations for student achievement (Hallinger & Lee 2014). Empirical connections between instructional leadership and student achievement abound in literature; and has become the object

of several studies. For instance, there is a significant relationship between the high frequency of student-centered teaching and instructional leadership. Instructional school leaders placed more emphasis on monitoring student progress and developing quality teaching and learning (Hallinger & Hosseingholizadeh 2019). In addition, successful school leaders consistently communicate their vision and goals clearly, nurture a positive work and environment, invest in a people-centered leadership and exhibit strong interpersonal skills (Noman, Awang Hashim & Shaik Abdullah 2018)

Teachers are also more likely to practice instructional differentiation in schools where headmasters are perceived to be instructional (Goddard, Neumerski, Goddard, Salloum & Berebitsky 2010). In the realm of English Language literacy, it has been observed that school heads who demonstrate wide knowledge of and belief in effective writing practices – would result in a better outcome for teachers in their writing instruction (Urtel & Vogel 2011). Additionally, positive changes have been in the instruction of both English language arts and mathematics (Supovitz, Sirinides & May 2010). Instructional school heads are eager to promote the professional development of new teachers (Neumerski 2013). Conversely, headmasters who are not deeply engaged in instructional concerns would be less likely to affect the instructional competence of teachers (Printy, Marks & Bowers 2010). The bulk of studies investigating instructional leadership rely on a worm's eye view of school experiences; in particular, teacher-level analysis based on the interviews conducted with educators who have assumed leadership roles. Whether or not teachers benefit from organizational milieu structured to provide support for instructional leadership is rarely reported in the literature (Derrington & Angelle 2013). Research trends in Malaysia tend to focus heavily on the principal or headmaster, as evidenced by the Malaysian Education Blueprint's assertion that good teachers alone are not enough (Ministry of Education 2013). However, the same blueprint also describes the Ministry's future intentions to move towards a model of distributed leadership, where effective, high-quality school leadership permeates the entire organization of all schools. This is evidence of the Ministry's support towards instructional leadership, as page 5-18 quickly clarified that the Ministry will therefore raise selection standards for the appointment of assistant principals, subject heads and heads of departments (Ministry of Education 2013).

#### THE LINK BETWEEN INSTRUCTIONAL LEADERSHIP AND STUDENT ACHIEVEMENT

To illustrate the importance of instructional leadership to student achievement, it is only fair to present studies in support of the assertion. Contemporary literature revealed that educational research into instructional leadership practices on student achievement were varied in their focus. For instance, a few studies highlighted the indirect influence of instructional leadership, in agreement with previous studies. Goddard, Goddard, Eun and Miller's study (2015) showed that instructional leadership indirectly predicted achievement differences among schools, while Day, Gu and Sammons's (2016) study found empirical evidence of successful principals using a combination of instructional and transformational leadership practices to engineer long-term school improvement and student achievement. The empirical data suggested that success did not result from the leadership style per se, but as the product of the principal's understanding of the school's needs and application of clearly-communicated, shared values. Further expanding on this, the data suggested that strong instructional leadership foster student learning by strengthening organisational belief systems and creating a conducive climate for teacher productivity.

A myriad of studies emphasised the role of instructional leadership on student achievement. To that effect, Hallinger, Hosseingholizadeh, Hashemi and Kouhsari's (2017) study reaffirmed the role of instructional leadership in shaping collective teacher self-efficacy beliefs – a known factor for student learning and achievement. More support for this notion was purveyed by Duyar, Mina and Owoh's (2019) study, which showed that principal instructional leadership and teacher creative practices positively predicted student achievement creative problem-solving performance. This agrees with Shaked and Benoliel's (2019) assertion, which laid heavy emphasis on the instructional leader's role as the promoter of the teachers' classroom instruction towards an improvement of students' learning, which extended Steinbacher-Reed and Rotella's (2017) 'professional sandbox' approach to enhance school head-teacher collaboration for better learning outcomes. Further, Chen and Guo's (2018) finding from a study in China confirmed the instructional leader's influence on teachers' pedagogical strategies, in concert with emotional intelligence, and henceforth to student achievement. Data from Alam and Ahmad's (2017) work in Pakistan was suggestive of a connective tissue between instructional leadership and primary school students' achievement, with teacher commitment as mediator.

Some researchers focused supervision and monitoring as a vital ingredient towards student achievement. Tulowitski's (2019) study asserted, among others, that intentional supervision by the school heads be executed alongside professional development to effect influence on student outcomes. The importance of immediate feedback for teaching and learning performance was reiterated by Hall's (2019) study, which highlighted the discomfort faced by instructional leaders in handling poor-performing teachers. Elsewhere, researchers like Pan, Nyeu and Cheng (2017) presented a broader view of student achievement by investigating the application of instructional leadership and its shift away from mere academic achievement towards multiple competencies. Their findings implied that whole-person students can be produced by a more distributed type of leadership, an actionable example being the development and fostering of professional learning communities. A study by McNeil, Lowenhaupt and Katsh-Singer (2018) narrowed the focus on the instructional leaders' knowledge of science at K-8 level. Here, the research pointed out the primacy of content knowledge for school heads. However, they suggested that it is more important for school heads to align their vision with the science practices to effectively supervise science teaching and learning. This agrees with Ismail, Don, Husin and Khalid's (2018) study, which found an averagely strong relationship between school leaders' instructional leadership and teachers' knowledge.

#### LITERACY AND NUMERACY

The Literacy and Numeracy Screening (LINUS) program in Malaysia was introduced in 2010 for the purpose of improving students' linguistic and numeracy proficiency. This program was created on the basis that existing educational approaches and strategies at the time were insufficient to arrest illiteracy, despite the initiation of various remedial programs (Curriculum Development Division 2015). The LINUS program continues where the KIA2M program left off (Tubah & Hamid 2011). In contrast to previous literacy-related strategies that have focused on the Malay Language, the LINUS program was formulated to include the English Language. Also known by its abbreviation LINUS, the aim by the Ministry of Education was to ensure that students have mastered the basics of the Malay Language as well as numeracy skills by the end of the third year of schooling. Subsumed under the education National Key Result Area (NKRA) and within the purview of Education Performance and Delivery Unit (PADU), three

cohorts of Year 1 to Year 3 primary school students have successfully completed the LINUS cycle in 2012.

By the end of 2012, 99% of all three student cohorts have achieved the required mastery in Malay Language literacy and numeracy, as aspired by the Ministry of Education. (Nazariyah Sani & Abdul Rahman Idris 2012). In 2013, the Ministry of Education added English Language Literacy to the list, alongside the existing Malay Language Literacy, as well as Numeracy. Henceforth, this incarnation of the literacy and numeracy screening is known by the acronym LINUS2.0. The aspiration of LINUS2.0 includes ensuring that all school-going children in Years 1 to 3, with the exception of special needs students, obtain mastery in Malay Language Literacy (LBM), English Language Literacy(LBI) and Numeracy (NUM) after three years of primary schooling.

Nearly a decade since its implementation, a raft of researches on the LINUS program has emerged in recent years. For instance, Ong, Roselan, Anwardeen and Mohd Mustapa (2015) examined the quality of early literacy assessment in Malaysia, with a specific focus on LBI. When juxtaposed against the Common European Framework of Reference (CEFR), they concluded LINUS2.0 to be an effective and sufficiently robust program, if executed according to expectations. Similarly, Bokhari, Md Rashid and Chan (2016) conducted a study on LBI, this time examining teachers' perceptions towards its implementation.

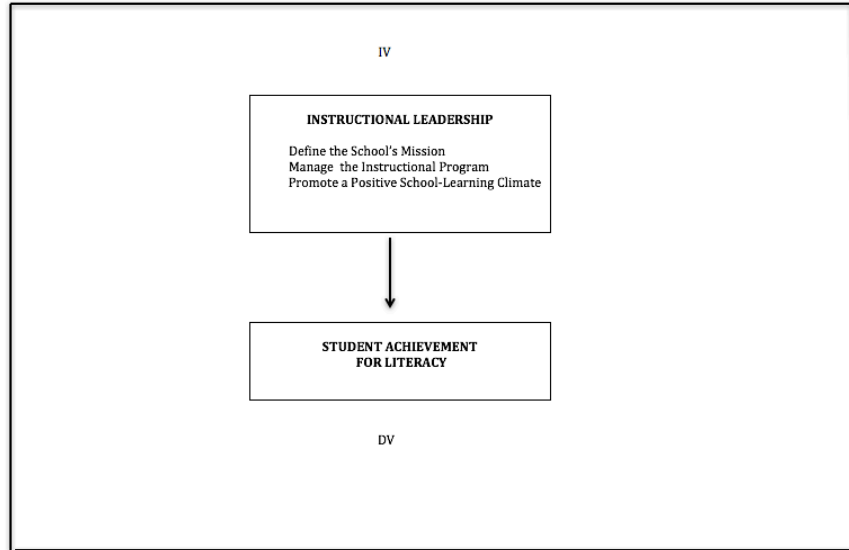
The study concluded that while there were obstacles in carrying out the program, most teachers reported a positive impact on students' performance. Hadzir, Alias, Kamaruzaman and Mohd Yusof (2016) took a similar tact as Bokhari et al. (2016), both in research design (semi-structured interview) and unit of analysis (teachers). However, the differentiating factor was their focus – the primary one students. Like Nazariyah Sani and Abdul Rahman Idris's (2012) work on *Orang Asli* students in Hulu Langat, and Tubah and Hamid's (2011) study in a myriad of geographic locations, most of the researches were qualitative in design. These early studies were unwaveringly focused on LBM, as LBI had not been introduced yet. In contrast, Musliman, Ariffin and Din (2013) adopted the quantitative design and focused on students' spatial intelligence with the aim to generate data that can help teachers align their instructional strategies to match the student's ability to recognize alphabets and numbers.

Investigations into literacy in a plethora of researches applied the use of multivariate logistic regression (Daraganova, Edwards & Siphthorp 2013, Greyling 2015, Zubrick et al. 2015). Often, this is due to the binary nature of the dependent variable, with many observing reactions of the pass/fail variant. These studies have shown that the use of logistic regression analytic methods are useful in isolating the causal effect of literacy and numeracy attainment among students. Others employed linear regression (Snowling, Hulme, Bailey, Stothard & Lindsay 2014, Carmichael, MacDonald & McFarland-Piazza 2014, Lane & Murray 2015) and mixed effects regression (Purpura, Hume, Sims & Lonigan 2011). In this section, this paper will briefly review the evidence for one components associated with literacy within the context of this study –instructional leadership.

#### CONCEPTUAL FRAMEWORK

The independent variable is based on the framework for instructional leadership - Hallinger and Murphy's (1985) Model of Instructional Management. Instructional leadership is the independent variable, with the English language literacy screening scores making up the dependent variable.





Adapted from Hallinger and Murphy (1985)

FIGURE 1. Conceptual Framework for the Study

The Instructional Leadership (IL) model (Hallinger & Murphy, 1985) consists of three components that contribute towards planning for action. These three components are namely: defining a school mission, managing the instructional program and developing a positive school learning climate. Subsumed under these components are the following dimensions: framing the school goals, communicating the school goals, supervising and evaluating instruction, coordinating the curriculum, monitoring student progress, protecting instructional time, maintaining high visibility, providing incentives for teachers, promoting professional development and providing incentives for learning.

## METHODOLOGY

The study uses survey utilizing questionnaires as its research design, a data collection method Creswell (2008) recommends in order to make generalizations onto the population. This study focuses on the factors contributing to student achievement in literacy and in primary schools.

## SAMPLE

The total number of schools in Sibul division is 150 (Sarawak Department of Education 2017). The sample is selected using stratified sampling. The appropriate sample size, according to Krejcie and Morgan (1970), is 108. These schools are chosen from a list of schools provided for by the education offices of Sibul, Selangau and Kanowit. Sibul, Selangau and Kanowit are the three districts that make up division Sibul, or Sibul Division (Department of Statistics Malaysia 2010). Of these, 1183 lower primary teachers are selected as respondents, but only 694 of the instruments were returned to the researcher. In all, 1183 questionnaires were distributed by hand to schools in all 3 districts: 737 in Sibul, 182 for Selangau and 172 for Kanowit. Of these, 733 questionnaires were retrieved– a 62% return rate. Out of the 733, 38 cases were dropped. The missing cases dropped here were not ignorable, due to infractions in procedural factors such as

data entry errors. In most cases, the respondents had failed to complete the entire questionnaire, with missing data encompassing more than 10 percent of an individual case, rendering the remaining data insufficient for the selected analysis technique (Hair, Black, Babin & Anderson 2010). Missing data such as these were eliminated when their absence from the data set were adjudged to not substantially alter the conceptual foundations of the research (Hair et al. 2010). After dropping cases with missing data, the total number of questionnaires selected for this research is 694. Equal-sized samples are useful to compare the performance of different subgroups (Gay, Mills & Airasian 2009).

For this study, only teachers teaching Year 1, Year 2 and Year 3 (level 1) were chosen to represent their schools. The teachers were a mixture of male and female; of various age groups; and comprised of both experienced and inexperienced educators.

#### INSTRUMENT

A modified versions of the questionnaire was used in this study as it is the most efficient and reliable method of getting feedback from large research samples (Bryman 2011). The Principal Instructional Management Rating Scale (PIMRS) is divided into 2 parts: Parts A and B. Part A consists of demographic detail, while part B contains 50 items on Instructional Leadership. A five-point Likert scale is used. The PIMRS was developed by Hallinger (2001) to measure the perception of teachers with regard to dimensions of their school head’s instructional leadership. The set of three domains extrapolated by Hallinger (2001) vis-a-vis Hallinger and Murphy’s (1985) Instructional Leadership Model.

The adapted PIMRS used for this study contains 50 items, with approximately 5 questions to a dimension. The three domains are: defining the school’s missions, managing instructional program and promoting a positive school learning. The 9 functions subsumed under these three domains included (a) framing the school’s goals, (b) communicating the school’s goals, (c) coordinating the curriculum, (d) supervising and evaluating instruction, (e) monitoring students’ progress, (f) providing incentives for teachers, (g) providing incentives for learning, (h) promoting professional development and (g) maintaining high visibility.

TABLE 1: Reliability Estimates for PIMRS

Dimensions / Functions	$\alpha$
<b>Defining the School’s Mission</b>	
Framing the school’s goals	.89
Communicating the school’s goals	.89
<b>Managing Instructional Program</b>	
Coordinating the curriculum	.90
Supervising and Evaluating Instruction	.90
Monitoring students’ progress	.84
<b>Promoting a Positive School Learning Climate</b>	
Providing Incentives for Teachers	.78
Providing Incentives for Learning	.87
Promoting Professional Development	.86
Maintaining High Visibility	.81

The screening for Malay Language Literacy (LBM), English Language Literacy (LBI) and Numeracy is conducted twice a year – in March and September - for all students in Years 1 to 3 across the nation. The students screened for two literacy components: reading and writing every March and September each year as a pre and post measurement of the students’ achievement (Azman, 2016). Each component is allotted one month each for completion. The

results for the screening are then inputted by the teachers onto a specialized online portal that was monitored by PADU (Education Performance and Delivery Unit) and assisted by district literacy and numeracy facilitators (FasiLINUS). For this study, the researcher procured the English language literacy (LBI) results – listed by school - from the relevant district education offices. The score is expressed in percentage of passes in each school. For instance, if all the students had passed the screening, the school would earn the score of 100%, which translates to 100% passing rate or literacy rate.

## DATA ANALYSIS

Binary logistic regression is utilized so that the variables related to the instructional leadership can be considered simultaneously, instead of being in a particular order. This allows all the variables to be entered at the same time without determining a hierarchical order based on each variable's importance relative to each other. Binary logistic regression analysis is utilized because the dependent variable is categorical data (Pallant 2011). Moreover, the study makes no assumptions of the significance of one variable over another. Here, the dimensions stated in the PIMRS are deemed the independent or predictor variables. Logistic regression is performed by utilizing the SPSS statistical software to ascertain the strength, significance and direction of the relationship between the dimensions contained within the PIMRS. To determine which independent variables contributed significantly to the student achievement scores, a logistic regression analysis is conducted. The regression analysis is conducted for each of the PIMRS dimensions as independent variables to explain the amount of variance in the student achievement (dependent variable), with demographic factors as control. The dependent variable for English language literacy is categorized into two: 100% literacy rate or below 100% literacy rate. This is to investigate the predictive validity of the independent variables and ascertain the predictive quality of observer-reported instructional leadership practices of school heads.

In other words, regression is a tool used to determine whether instructional leadership practices- as perceived by in-service teachers – can predict student achievement for literacy. Using the same SPSS software, logistic regression is operationalized by analyzing the composite scores of each independent or predictor variables. This is done to explain the amount of variance within the composite scores of each dimension of the student achievement scores – which functions as the dependent or outcome variables. From the data, scatter plots are constructed and analyzed. This is done to examine the direction of potential relationships between variables as well as to check the normality of the data. The coefficients calculate the strength of the variable relative to the variance. After the regression model has been built, the goodness-of-fit of the model and the statistical significance of the estimated parameters is confirmed (Field 2013, Pallant 2011). A popular check for goodness-of-fit can be any of the following: the coefficient of determination pseudo-R<sup>2</sup> (Nagelkerke and Cox and Snell), hypothesis testing and analyses of the pattern of the residuals. F-test of the overall fit or t-tests of the individual parameters can be used to check for statistical significance (Field 2013, Pallant 2011).

## RESULTS

The data were analyzed using SPSS 24.0 with a focus on binary logistic regression.



BINARY LOGISTIC REGRESSION

Binary logistic regression in Statistical Package for the Social Sciences (SPSS) 24.0 was used to determine the influence of the predictor variable (instructional leadership) on student achievement in English Language literacy. A test of the full model is presented in Table 2:

TABLE 2. Omnibus Test of Model Coefficients

		Chi-square	df	sig
Step 1	Step	20.541	10	.025
	Block	20.541	10	.025
	Model	20.541	10	.025

The full model containing all predictors was statistically significant,  $\chi^2$  (N=694) = 20.54, with a *p* value of 0.025, indicating that the model was able to distinguish between subscales that influence and did not influence student achievement in English language literacy, as well as demonstrating adequate fit of data to the model. In addition, this also pointed to one or all of the predictors being significantly related to the dependent variable.

TABLE 3. Model Summary

	-2 Log Likelihood	Cox & Snell R Square	Nagelkerke R Square
Step 1	122.870	.178	.239

As shown in Table 3, the model as a whole explained between 17.8% (Cox and Snell R squared) and 23.9% (Nagelkerke R squared) of the variance in instructional leadership. These were correctly classified in 68.6% of cases, as illustrated in Table 4. This indicated the existence of a moderately strong relationship between prediction and grouping for this model.

TABLE 4. Classification Table

	Observed	LBI		Predicted	Percentage Correct
		0	1		
Step 1	LBI	0	24	21	53.3
	IL	1	12	48	80.0
Overall Percentage					68.6

The odds ratio was calculated by way of regression coefficients of the instructional leadership predictors as exponents (Exp). This is to ascertain the influence of the hypothesized predictor variables (instructional leadership) on the literacy rate, in which the odds ratio was used to estimate the change in the odds of membership in the target variable for every one-unit increase of the predictor variable. In the SPSS, the odds ratio was presented as Exp (B), as illustrated in Table 5. The Wald statistics were also generated to show the significant levels and to establish which specific predictor variable was influencing the target variable.

Binary logistic regression in SPSS 24.0 was used to determine the influence of predictor variables on student achievement. The results are summarized in Table 5:

TABLE 5. Logistic Regression Predicting Likelihood of Instructional Leadership Subscales Influencing LBI

Variables	B	S.E	Wald	df	p	Exp(B)	95% C.I. for Odds Ratio	
							Lower	Upper
Frame the School Goals	-2.859	1.680	2.896	1	.089	.057	.002	1.543
Communicate the School Goals	.170	1.550	.012	1	.913	1.185	.057	24.723
Supervise and Evaluate Instruction	2.840	1.344	4.466	1	.035	17.117	1.229	238.385
Coordinate the Curriculum	2.290	1.872	1.496	1	.221	9.873	.252	387.517
Monitor Student Progress	-1.572	1.842	.728	1	.393	.208	.006	7.675
Protect Instructional Time	1.467	1.554	.892	1	.345	4.338	.206	91.144
Maintain High Visibility	.129	1.148	.013	1	.910	.879	.093	8.337
Promote Professional Development	-1.383	1.059	1.706	1	.191	.251	.032	1.998
Provide Incentives for Learning	-3.021	1.671	3.269	1	.071	.049	.002	1.289
Provide Incentives for Teachers	.478	1.296	.136	1	.712	1.612	.127	20.441
Constant	7.090	3.976	3.180	1	.075	1199.416		

In assessing the influence of instructional leadership on literacy, only one of the independent variables made a unique statistically significant contribution to the model (supervising and evaluating instruction). As shown in Table 5, a strong predictor of student achievement in literacy was supervising and evaluating instruction, recording an odds ratio of 17. This indicated that headmasters who helped schools achieve 100% literacy rate for the English Language were over 17 times more likely to score highly in supervising and evaluating instruction, controlling for all other factors.

## CONCLUSION

This study investigated the possible effects of instructional leadership on student achievement. The dimension of instructional leadership - supervising and evaluating instruction emerged as a strong predictor for 100% literacy rate in primary schools. The result indicated that the schools were more than 17 times more likely to achieve 100% literacy rate when the headmasters supervised and evaluated instruction. The supervision and evaluation of instruction, therefore, can be viewed as a viable course of action for school heads. Using this finding as a guide, school heads can place a sizeable emphasis on this dimension of instructional leadership in the course of their daily duties. The vast body of research into instructional leadership concurs with this finding (Brandon, Hollweck & Donlevy 2018, Harris, Jones, Soon, Devadason & Adams 2017, DiPaola & Hoy 2014, Bendikson, Robinson & Hattie 2012, Danielson, 2011, Range, Scherz, Holt & Young 2011, Marzano, Frontier & Livingston 2011). For instance, in a study of 100 urban school heads conducted over a period of 3 years, Grissom, Loeb & Master (2013) found that teacher evaluation, among others, is a predictor of positive student academic achievement. Supervision and evaluation is a responsibility and has great import on the headmaster's role as an instructional leader (Tuytens & Davos 2017, Zepeda 2016, April & Bouchamma 2015, Range,

Hewitt & Young 2014, DiPaola & Hoy 2014, Shatzer, Caldarella, Hallam & Brown 2014).

Teachers are more motivated to develop themselves into subject experts once they see the correlation between teacher evaluation with student achievement. In that spirit, Marzano, Frontier and Livingston (2011) suggested that teaching, supervision and evaluation be contextualized within a community mindset in order to allow more opportunities for observation and discussion on pedagogy, thereby improving student achievement. Other researchers like Zepeda (2016) extrapolated on the need for headmasters to establish a continual supervisory system as part of their role as instructional leaders. Of great import is the feedback headmasters give to teachers as part of instructional supervision and evaluation, as it provides evidence upon which teachers can track and improve their own performances in terms of classroom strategies (DiPaola & Hoy 2014). Headmasters who fail to consider adequate supervisory systems may face problems in communicating useful feedback to teachers (Range et al. 2014). When discussing specific instructional behaviours by school heads with the biggest effect on student achievement in a study, Shatzer, Caldarella, Hallam and Brown (2014) highlighted a few relevant traits. These include: discussing with teachers about the students' needs; and organizing meetings with teachers and students concerning the school's academic results. These are behaviours associated with the dimension of supervision and evaluation. This finding confirms the dimension's significance as part of an instructional leader's management arsenal, especially where literacy is concerned. This is further bolstered by Brandon, Hollweck, Donlevy and Whalen (2018) assertion that quality teaching is ensured by effective supervision and evaluation by the school head. In sum, more comprehensive studies are needed to ascertain its consistency as well as investigating other instructional leadership predictors for literacy.

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