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Principal Leadership Style and Teacher Commitment among a Sample of Secondary School Teachers in Barbados

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ABSTRACT

In Barbados, the issue of principal leadership and teacher productivity has occupied the attention of teacher unions and educational authorities alike. The teachers have been calling for principals to be removed while the principals have been arguing for greater autonomy to discipline teachers. This state of affairs has, understandably, adversely impacted teacher commitment levels. In the literature there is a clear correlation between principal leadership style and teacher commitment, however, it is important to know whether or not the relationship holds true in the context of Barbadian schools. This author is of the view that if teacher commitment levels are to return to those in evidence in effective schools, then attention must be given to the way in which principals exercise their leadership functions. This study was therefore designed to examine in greater detail the relationship between principal leadership style and teacher commitment. The author employed purposive sampling to survey a cohort of ninety (90) teachers and eleven (11) principals drawn from eleven secondary schools. Results confirmed the relationship between principal leadership style and teacher commitment, and a statistically significant difference in the level of commitment reported by teachers at newer secondary schools and teachers at older secondary schools. Results also indicated that biographical variables moderated the relationship between principal leadership style and teacher commitment. Additionally, the regression model indicated that the principal leadership style sub-variables, in combination, accounted for some variance in the commitment demonstrated by teachers.

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1.0   Introduction

Teacher commitment is regarded as a key concern in educational systems across the globe, because of its influence on student outcomes and general school effectiveness (Park, 2005). In Barbados it has occupied the attention of policy makers across the educational landscape for one main reason. In the last 3 years there have been ongoing struggles between principals and teachers at three schools in particular. In fact, in one of those secondary schools the issue of teacher commitment and principal leadership became the focus of a national Commission of Inquiry. The report of the commission concluded that leadership was a core issue impacting teachers' level of commitment and general productivity among other things. Significantly, the research suggests that if teachers are not committed then there would be an adverse impact on the realisation of organisational goals (Park, 2005). Moreover a brief survey of teacher opinion in the context of Barbados revealed that, if given the option, teachers were prepared to exit the service, albeit prematurely.

But what is teacher commitment? There are several conceptualisations in the literature. Some researchers such as (Meyer and Allen, 1991) have advanced a theory of commitment along organisational lines and suggest three types, namely, affect, normative and continuance. Nir (2002) posited three types of teacher commitment, commitment to teaching, commitment to students, and commitment to organization. Other researchers have used other terms to define organisational commitment and have coined the phrase discretionary effort (voluntary and discretionary behaviours that exceed formal expectations of the job) and assert that it is a vital component of worker commitment in general and specifically teacher commitment, which is in turn influenced by the quality of leadership provided (Hoy, Hoy and Kurz, 2008). From the literature the consensus is that conceptualization of teacher commitment can be synthesised as a multidimensional construct that is reflected in four dimensions as follows: commitment to students, commitment to teaching, commitment to school, and commitment to profession (Thien, Razak, and Ramayah, 2014).

On the other hand there is also literature that examines principal leadership style and its relationship to teacher commitment. For example Nguni, Sleegers, and Denessen (2006) have argued that providing a shared school vision and setting directions in schools are important in developing a committed teaching force.   Research by Yavuz (2008) has also underscored the significant relationship between organisational commitment and leadership. On the basis of the foregoing, I posit that if we are to resolve some of the issues with teacher commitment then we must examine it in relation to principal leadership. In the literature, generally speaking, there is attention given to the relationship between the two variables, however less attention is given to the moderating effect of selected biographical variables and how these shape levels of teacher commitment. Specifically, in Barbados there is a paucity of research on the relationship between teacher commitment and principal leadership style with specific reference to biographical variables such as school type and sex. This paper attempts to fill that void. Given the significant differences between older and newer secondary schools, as it relates to student profiles, size of the school roll, and school facilities, I hypothesize that there will be a difference in the level of commitment reported by teachers from the two types of school; also that biographical variables will moderate the relationship between principal leadership style and teacher commitment, and that principal leadership style variables would predict teacher commitment. To this end, this exploratory study surveyed ninety (90) teachers and eleven (11) principals from a cross section of older and newer secondary schools. In this paper teacher commitment is defined as the extent to which principals engaged in and were perceived by teachers as engaging in behaviours that would have promoted a sense of loyalty to the schools' goals and values. Principal leadership style is measured using the following sub-variables: planning, decision making, communicating, organizing and coordinating, delegating, evaluating, and social and professional support. The findings confirmed a generally positive relationship between principal leadership style and teacher commitment. In terms of biographical variables, there was a difference in the commitment scores of experienced and inexperienced teachers and a statistically significant difference in the level of commitment reported by teachers at newer and older secondary schools in favour of the latter.

From a policy perspective, these findings point to the need to treat to the issue of teacher commitment in a contextualized manner. It is a fact that working in newer secondary schools in Barbados is decidedly more difficult that working in older secondary schools. It stands to reason therefore that if one is to raise the level of teacher commitment in such schools then there must be the development of a differentiated incentive policies that are cognisant of the increased difficulty aforementioned. This paper is organised into six major sections. The following section provides the theoretical framework for the study. This is followed by a review of the relevant literature on principal leadership and teacher commitment and the impact of biographical variables on teacher commitment. The third section describes the research methods employed in the study, while the forth section provides the results and analysis of the findings. The fifth section provides a discussion and analysis of the findings. The study concludes with a discussion of the policy implications for the findings.

1.01   Theoretical framework

This paper is grounded in the theory of symbolic interactionism. Blumer (1969) argued that society consist of organised and patterned interactions among individuals. The theory further suggests that human beings are pragmatic actors who continuously adjust their behaviour in response to the behaviour of other actors (Blumer, 1969; Mead, 1934) This approach to social inquiry is based on three major premises as follows: (1) individuals act toward things and people on the basis of the meanings that things have for them; (2) the meaning of such things are derived from, or arise out of, the social interaction that individuals have with one another; and (3) these meanings are handled in, and modified through, an interpretive process used by individuals to deal with the things and other people they encounter (Blumer, 1969; Mead, 1934).

In this paper the focus is teachers' perceptions of principals' leadership and the teachers self-reported level of commitment. The purpose is to determine if there is a relationship between the two variables and if there is, what is the magnitude and nature of that relationship? In the school system and indeed any organisational setting where people exists there is always the constant interplay of action and reaction and people generally interact based on beliefs rather than objective truth (Griffin, 1997). In concert with the perspective of (Blumer, 1969; Mead, 1934), this study was designed to investigate the meanings teachers and principals constructed from their interaction with each other in the context of the teaching, learning and administrative environment. By using this perceptual framework one would be able to deconstruct how specific principal behaviours impact the level of teacher commitment, expressed as teacher commitment to the students, to the profession or to the school as an organisation. Since the teachers are the ones who are engaged in the school environment and interact with the principal, and the climate or culture that is created by his/her leadership, it would be most appropriate to investigate their perceptions of leadership, since their perceptions, according to the theory of symbolic interactionism, will inform their behaviours and also influence their level of commitment.

1.02   Objectives

This survey research was designed to examine the nature of the relationship between principal leadership style and teacher commitment. This was done to provide answers to the following research questions: (1) Is there a relationship between principals' leadership style and teacher commitment? (2a) Is there a relationship between principal leadership style and teacher commitment by gender? (2b) Is there a relationship between principal leadership style and teacher commitment by school roll? (2c) Is there a relationship between principal leadership style and teacher commitment by teaching experience? (3) Is there a statistically significant difference in the level of commitment reported by male and female teachers? (4) Is there a statistically significant difference in the level of commitment reported by older and newer secondary teachers? (5) What are the combined and relative effects of evaluating, support, planning, decision making, communicating, organizing, and delegating on teacher commitment?

2.0   Relevant literature

2.01   Teacher commitment

Firestone & Rosenblum (1988) defined commitment as positive, affective attachment, and for them the components of teachers' commitment were: commitment to students, commitment to teaching, and commitment to a specific school. They contended that commitment manifests itself in behaviours such as extended tenure in a school or the willingness to take on a variety of roles. Other writers have also offered their definitions of commitment. For example Coladarci (1992) defined commitment from the perspective of teaching as a profession. For this author professional commitment referred to the degree of psychological attachment that a teacher has toward the teaching profession in general. On the other hand, Mowday, Steers and Porte, (1979) opted for an internal perspective and posited the concept of organisational commitment, defined as the level of identification and involvement that an individual has with an organisation. Louis (1998) expanded the work of Firestone and Rosenblum (1993) and developed four dimensions of commitment as follows: commitment to school, commitment to academic goals, commitment to students, and commitment to the body of knowledge to achieve effective teaching. Nir (2002) argued for three dimensions of commitment, including commitment to teaching, commitment to students, and commitment to organization. From the brief discourse thus far it is reasonable to suggest that commitment is a multi-dimensional construct and as such, as noted by Ibrahim, Ghavifekr, Ling, Siraj and Azeez (2013) teachers may vary in their commitment to the school as an organization, the students, or teaching as a profession.

2.02   Principal leadership and teacher commitment

Early researchers have long established the link between principal leadership and teacher commitment. For example, Starnaman & Miller (1992) cited in Sinclair et al (1992), posited that workload and support from their principals influenced teacher burnout, job satisfaction and occupational commitment. Other studies have found principal behaviours to represent an important determinant of teacher commitment, insofar as they can help establish supportive organizational climates, Rutter, Maughn, Mortimore, Ouston & Smith (1979); Maehr, Smith & Midgley (1990); Pitner & Soden (1998).

Supersad (1993) looking at the Trinidadian experience found that there was a correlation between the level of participative decision making exercised by the principal and the level of commitment and morale among teachers. Simmonds (1994) in Jamaica revealed that there was a positive and significant relationship between teachers perceived leadership behaviour of principals and teacher performance, While James (1998) in St Vincent identified a relationship among selected teacher factors and levels of job satisfaction. Henriques (1996), in a study of teacher attrition and staff turnover in Eastern Jamaica also points to links between organisational factors and teacher commitment. The study by Henriques (1996) found that,

1. There were variations in the rates of attrition and turnover between and among different types of schools, but primary schools, shift schools, urban schools, and large schools seemed to retain their staff for longer periods than secondary schools, regular day schools, rural schools and small schools.
2. Age, qualification, training and experience did not necessarily determine attrition and turnover rates. Teachers left the system at different ages and different stages of their careers.
3. School related factors such as class size, workload, students' attitude and performance, lack of parental support, principal leadership style, the limited scope of professional growth and development, and the inadequacies of salaries contributed most to teacher attrition.
4. Societal factors, like the status of the teaching profession, the relationship between schools and the surrounding communities and society's attitude toward education and teachers, were the next most important contributing factors. Teachers were dissatisfied with the lack of facilities and equipment as well as the cramped space and substandard plants, in which many of them had to operate. Most of the teachers indicated that they would leave for equal paying jobs as long as

the infrastructure and general conditions were acceptable.

5. Teachers remained in specific schools and/or the profession mainly because of (a) the convenience of the working hours and location of the school, for their family life, (b) the principal's leadership style, (c) provisions made by the school for living accommodation and staff welfare, (d) parental and family support received by schools.

Firestone and Rosenblum (1993) noted that organisational conditions such as autonomy regarding classroom decisions, participation in school-wide decision making, opportunities to collaborate with other teachers, opportunities to learn, and adequate resources were consistently shown to be strongly associated with teacher commitment, especially because they reduced uncertainty, promoted autonomy, and provided opportunities for teachers to learn how to be successful.

On the other hand Reyes and Shin (1995) found that teacher satisfaction was a determinant of teacher commitment. While Marlow, Inmar, and Betancourt-Smith (1996) indicated that the common reasons for leaving included problems with student discipline, lack of student motivation, and lack of respect from community, parents, administrators, and students.

More recent research has confirmed the relationship between principal leadership and teacher commitment. Smith and Ingersoll (2004) reported from their study on beginning teachers, that those who experienced induction and mentoring support for their first year were less likely to leave teaching or change schools. Further, the greater the support given to experienced teachers the lower the likelihood of them leaving or changing schools. Other findings from a study done by (Wynn, Carboni Wilson, and Patall, 2005) and (Wynn and Patall, 2006) suggested that beginning teachers decisions to remain at the school site were strongly influenced by the principal leadership and school climate, which was also impacted by principal leadership.

Brown and Wynn (2009) approached the issue from the wide angle of teacher retention and found that principals who had an awareness of the factors impacting on new teachers; principals with a proactive approach to supporting new teachers, and principals with a commitment to professional growth and excellence for themselves, their students, and their teachers, both new and veteran, were retaining teachers at a higher rate than their peers who were not engaging in such behaviours.

Horng, Klasik, and Loeb (2010) also focused attention on the interpersonal aspects of principal leadership. The results of their study indicated that the time school leaders spent on maintaining relationships within the school was positively related to teachers' satisfaction with teaching at their respective schools therefore, schools with strong supportive leadership were associated with an open school climate with higher levels of satisfaction, cohesion around school goals, and commitment among teachers. On the basis of the results of (Horng, Klasik, and Loeb, 2010) other researchers have asserted that in secondary schools the supportive leadership function of the school principal is positively related to teachers' organizational commitment (Devos, Tuytens, and Hulpia, 2014).

2.03   Teacher commitment and biographical variables

Research on the influence of biographical variables on teacher commitment was divided. Brunetti (2001) found that experienced teachers felt less committed and satisfied than less experienced teachers. Similarly, Sammons, Day, Kington, Gu, Stobart, and Smees (2007) reported that sustaining commitment is likely to be more for teachers in the later years of their professional lives.

Johnson (2004) also looking at the issue of commitment along lines of experience versus inexperience, found that although training needs differed, both young and not-so- young beginners needed support and guidance. Many of the beginning teachers she interviewed in her five year study reported working in isolation, without guidance from principals or experienced teachers. Many of the teachers gave up or were asked to leave. Of the fifty (50) teachers Johnson followed closely, only seventeen (17) remained in the schools. Another seventeen (17) no longer worked in public schools, and eleven (11) had given up on

teaching entirely, while the remaining five were unaccounted for. Research by Collie, Shapka and Perry (2011) in a study that looked at predictors of different types of organisational commitment reported that after accounting for school climate, the odds of high general professional commitment were reduced slightly for every extra year a teacher worked, while for future professional commitment and organisational commitment, after accounting for school climate, commitment increased slightly for every year increased in experience. Mixed results were also reported by Devos, Tuytens, and Hulpia, (2014), they findings indicated that teacher seniority was significantly related to teachers' organizational commitment. Teachers with more job experience tended to be less committed to the school than teachers with less job experience. In contrast, other researchers, namely Mathieu and Zajac (1990) and Park (2005) have reported that context variables do not have a strong influence on teacher commitment, while the correlations between context variables and principal leadership tended to be small.

According to the teacher commitment prediction study by Collie, Shapka and Perry (2011), sex was the most consistent predictor of commitment among teachers. Females were 2.26 times more likely to report high commitment to the teaching profession, than their male counterparts, when school climate variables were included in the prediction model and 1.78 times more likely when social and emotional variables were included in the prediction model.

3.0   Method

3.01   Sample and procedure

Purposive and random sampling methodologies were used to select a cohort of one hundred (100) teachers and eleven (11) principals from a population of 23 secondary schools, however, only 90 of the teacher questionnaires were usable. In terms of the biographical composition of the sample, 60.4 percent were female and 39.6 were male. In terms of age 32.7 percent of the respondents were in the 40 - 49 age group, while 25.7 percent of respondents came from the 50 - 59 age group. In addition 82.2 percent of the respondents were appointed and 41.6 percent of the respondents were teaching for at least ten years, 70.3 percent of the respondents were trained graduates, while 63.4 percent and 50.5 percent represented those respondents who were drawn from newer secondary schools and the rural areas respectively.

3.02   Definition of terms

Older secondary school

An older secondary school is one which receives students who score in the upper quartiles in the Barbados Secondary School Entrance Examination (Common Entrance). These schools normally have higher levels of parental involvement, greater access to resources, smaller student rolls, and generally few students who present with behavioral and cognitive difficulties (Marshall, 2014)

Newer secondary school

A newer secondary school is one which receives students who score in the lower quartiles in the Barbados Secondary Entrance Examination (Common Entrance). These schools normally have lower levels of parental involvement, reduced access to resources, larger student rolls, and generally a disproportionate number of students who present with behavioral and cognitive difficulties (Marshall, 2014).

3.03   Instrumentation

A questionnaire which measured the independent variable, principal leadership style, and the dependent variable, teacher commitment was administered. The principal leadership style variable was measured

using seven sub-scales as follows: planning (18 items), decision making (24 items), communicating (19 items), organising and coordinating (20 items), delegating (12 items), evaluating (14 items), and social and professional support (15 items). These sub-scales were taken from a questionnaire produced by Jones (1988) in a study entitled "Principal Leadership Style its Expression on Teacher Satisfaction". The average item score for the leadership style sub-scales was found to be highly reliable (α = .94).

Teacher commitment   was defined as a partisan, affective attachment to the goals and values of an organization, to one's role in relation to goals and values, and to the organization for its own sake, apart from its instrumental worth (Buchanan, 1974). This was measured as the extent to which principals engaged in, and were perceived by teachers as engaging in, behaviours which would have promoted a sense of loyalty and commitment. Respondents were asked to comment on eight (8) items which related to whether or not they would be prepared to leave the school if the opportunity arose, if they planned to leave teaching, and if so, how soon, and if they were staying at school out of necessity. A five-point Likert scale (scored from 1 = strongly agree to 5 = strongly disagree), was used to measure this variable. The teacher commitment variable was measured using questionnaire items from the Purdue Teacher Opinionnaire developed by Bentley & Rempel (1980). The teacher commitment scale was found to be highly reliable (8 items α = .91)

Procedure

The questionnaires were administered to a group consisting of eleven (11) principals and one hundred (100) teachers from public secondary schools in Barbados. All of the principals' questionnaires were completed; however, ten of the teacher questionnaires were not completed, and were therefore not usable. Thus the response rate for the questionnaires was 100 % and 90 % for principals and teachers respectively.

Data analysis

Research question 1, 2a, 2b, 2c, were analyzed using Pearson's Product Moment Correlation, research questions 3 and 4 were analyzed using the Independent Samples 't' test, and research question 5 was analyzed using regression analysis. According to Gay, Mills and Airasian (2005), the Pearson r is the most appropriate measure when the variables to be correlated are expressed as either, interval or ratio data. In this study the measures represent interval scales. This statistical test was used to answer the questions which sought to examine the relationship between teacher perceptions of principal leadership and the dependent variable, teacher commitment. Gay et al (2005), argued that this test is an appropriate statistical test, since the Pearson r takes into account each and every score in both distributions and it represents the most stable measure of correlation.

According to Best and Kahn (2006) the 't' test for independent samples is ideally suited for samples that are randomly formed, where the members of one group are not related to members of the other group in any systematic way, other than that they are selected from the same population. This test was used to determine the answers to research questions that were concerned with differences between independent groups. This test was chosen because it allows the researcher to compare the means of two different samples. In this research the differences in the responses of male and female teachers, rural and urban teachers and older and newer secondary teachers were examined, to determine whether there was a significant difference between the means of the independent samples. Since one of the foci of this paper was to explore any differences between selected groups in a granular way, this test was most appropriate. Multiple regression is a statistical tool used to determine the correlation between a criterion variable and a combination of two or more predictor variables (Gall, Borg and Gall, 1996). The literature suggests that there is a relationship between principal leadership style and teacher commitment, therefore multiple regression would answer the question of how specific aspects of principal leadership style in combination, best predict teacher commitment.

4.0   Results and analysis

The sample

The participants in the study were drawn from a representative cross section of the teaching fraternity in Barbados. Of the 101 respondents in the study 60.4 percent were female and 39.6 were male. In terms of age 41.6 percent of the respondents were in the 20 - 39 age group, while 58.4 percent of respondents were in the 40 - 59 age group. In addition, 82.2 percent of the respondents were appointed teachers or had security of tenure while 17.8 were not or did not have security of tenure. As it relates to teaching experience, 70.3 % of the teachers were teaching for between 1 - 19 years while 29.7 of them were teaching for between 20 to 39 years. In terms of school location and school type, 50.5 percent of the teachers were drawn from rural schools and 49.5 percent were drawn from urban schools. For school type, the data indicated that 63.4 percent of the teachers were drawn from newer secondary schools and 36.6 percent were drawn from older secondary schools.

Research Question1: Is there a significant relationship between principal leadership style and teacher commitment?

The Pearson's Product Moment Correlation was conducted to answer this question. The results showed that teacher commitment was significantly correlated with planning($r = 326$ $p< 0.01$), decision making ($r =.377$ $p< 0.01$), communicating ($r = .352$ $p< 0.01$), organising ($r = .373$ $p< 0.01$), support ($r =.281$ $p< 0.01$), evaluating ($r = .256$ $p< 0.05$) and delegating ($r =.259$ $p< 0.05$). The correlation results are summarized in Table 1-1 below.

Table 1-1 Correlation Matrix for the interrelationship of principal leadership style and teacher commitment (N=90)

1 *Planning*	1	2	3	4	5	6	7	8
2 *Decision Making*	.869**							
3 *Communicating*	.834**	.910**						
4 *Organising*	.859**	.877**	.893**					
5 *Support*	.389**	.484**	.444**	.526**				
6 *Evaluating*	.616**	.643**	.617**	.669**	.419**			
7 *Delegating*	.428**	.405**	.426**	.462**	.205**	.608**		
8 *Commitment*	.326**	.377**	.352**	.373**	.281**	.256*	.259*	1

** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed)

Research Question 2a: Is there a significant relationship between principal leadership style and teacher commitment by gender?

The Pearson's Product Moment Correlation was conducted and the results revealed that for the male teachers commitment was more strongly correlated with planning ($r = .398$ $p < 0.05$), decision making($r = .392$ $p < 0.05$), communication ($r = .460$ $p < 0.01$), organising ($r = .468$ $p < 0.01$), supporting ($r = .491$ $p < 0.01$). This suggested that male teachers were more affected than female teachers by these aspects of the perceived principal leadership style. The results of the correlation are summarized in table 1-2 below.

Table 1-2 Correlation matrix for the interrelationship of principal leadership style and teacher commitment by gender (Male Teachers N=34, Female Teachers N=56)

Males above the diagonal

	1	2	3	4	5	6	7	8
1 *Planning*	1	.855**	.862**	.886**	.472**	.490**	.188	.398*
2 *Decision Making*	.883**	1	.939**	.901**	.617**	.566**	.246	.392*
3 *Communicating*	.809**	.888**	1	.953**	.673**	.531**	.273	.460**
4 *Organising*	.839**	.861**	.846**	1	.678**	.611**	.342*	.468**
5 *Support*	.315**	.381**	.247	.401**	1	.570**	.388*	.491*

	1	2	3	4	5	6	7	8
6 Evaluating	.740**	.715**	.698**	.726**	.273*	1	.517**	.290
7 Delegating	.602**	.507**	.531**	.556**	.105	.708**	1	.316
8 Commitment	.286*	.372**	.290*	.320*	.141	.243	.255	1

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

 * Correlation is significant at the 0.05 level (2-tailed)

Females below the diagonal

Research Question 2b: Is there a significant relationship between principal leadership style and teacher commitment by school roll?

An examination of the relationship between perceived principal leadership style and commitment revealed that the over 1000 group had stronger correlations than their counterparts in the under 1000 group. The correlation scores for the over 1000 group were as follows: delegating (r=.384 p<0.05), evaluating (r=.322 p<0.05), support (r=.408 p<0.01), organising (r=.476 p<0.01), decision making (r=.553 p<0.01), communicating (r=.516 p<0.01) and planning (r=.500 p<0.01), see Table 1-3 below.

Table 1-3 Correlation matrix for the interrelationship of principal leadership style and teacher commitment by school roll (School Roll Over 1000 N=43, School Roll Under 1000 N= 47)

School Roll over 1000 above the diagonal

	1	2	3	4	5	6	7	8
1 Planning	1	.864**	.835**	.870**	.414**	.645**	.526**	.500**
2 Decision Making	.887**	1	.932**	.894**	.543**	.697**	.535**	.553**
3 Communicating	.836**	.885**	1	.874**	.418**	.652**	.489**	.516**
4 Organising	.848**	.862**	.913**	1	.547**	.673**	.503**	.476**
5 Support	.370*	.403**	.483**	.508**	1	.406**	.195*	.190
6 Evaluating	.578**	.600**	.584**	.663**	.452**	1	.729**	.322*
7 Delegating	.299*	.297	.365*	.414**	.229	.482**	1	.384*
8 Commitment	.194	.194	.199	.292*	.408**	.234	.222	1

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

 * Correlation is significant at the 0.05 level (2-tailed)

School roll under 1000 below the diagonal

Research Question 2c: Is there a significant relationship between principal leadership style and teacher commitment by school type?

In terms of the relationship between perceived principal leadership style and commitment, there were some interesting findings. The older secondary school group did not show any relationship between perceived principal leadership style and commitment. However, with the newer secondary school group there were relationships among the sub-scales evidenced by the following scores delegating (r =.453 p < 0.01), evaluating (r =.415 p < 0.01), supporting (r =.340 p < 0.01), organising (r =.439 p < 0.01), decision making (r =.484 p < 0.01), communicating (r =.406 p < 0.01), and planning (r =.377 p < 0.01). The results of the correlation are outlined in Table 1-4 below.

Table 1-4 Correlation matrix for the interrelationship of principal leadership style and teacher commitment by school type (Older Secondary School Teachers N=33, Newer Secondary School Teachers N=57)

Older Secondary School Teachers above the diagonal

	1	2	3	4	5	6	7	8
1 Planning	1	.837**	.816**	.834**	.315	.543**	.284	.175
2 Decision Making	.881**	1	.879**	.819**	.409*	.540**	.196	.186
3 Communicating	.840**	.921**	1	.895**	.511**	.504**	.242	.175
4 Organising	.871**	.904**	.894**	1	.448**	.574**	.352*	.130
5 Support	.492**	.522**	.431**	582**	1	.325	.111	.235

6 Evaluating	.652**	.687**	.662**	.725**	.454**	1	.757**	-.069
7 Delegating	.494**	.502**	.505**	.508**	.261*	.556**	1	.149
8 Commitment	.377**	.454**	.406**	.439**	.340**	.415**	.453**	1

** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed)

Newer secondary school teachers below the diagonal

Research Question 2d: Is there a significant relationship between principal leadership style and teacher commitment by teaching experience?

The respondents were divided into two cohorts, 20-39 years old, above the diagonal, and 40-59 years old, below the diagonal. Hereafter referred to as the young cohort and the old cohort. The results of the correlations are presented in Table 1-5.

As it relates to perceived principal leadership style and teacher satisfaction both groups reported similar moderate correlations. However, in relation to commitment the young cohort reported higher correlations than the old cohort on the variables of planning (r=.342 P<0.01), communicating (r=.391 p<0.01), organising (r=.424 p<0.01), and support (r=.349 p<0.01). There was no correlation between perceived principal leadership style and commitment for the 20- 39 cohort. But there were moderate positive correlations for the 1-19 cohort on the variables planning (r=.409 p<0.01), decision making (r=.441 p<0.01), communicating (r=.444 p<0.01), organising (r=.519 p<0.01) support (r=.377 p<0.01) evaluating (r=.383 p<0.01), delegating (r=.370 p<0.01). See Table 1-5 below.

Table 1-5 Correlation matrix for the interrelationship of principal leadership style and teacher commitment by teaching age/experience (Experienced Teachers: 1-19 Years N=53, Experienced Teachers: 20-39 Years N=37)

Teachers with 20-39 years experience above the diagonal

	1	2	3	4	5	6	7	8
1 Planning	1	.874**	.837**	.835**	.246	.667**	.415*	.207
2 Decision Making	.869**	1	.933**	.861**	.372*	.604**	.291	.279
3 Communicating	.833**	.903**	1	.863**	.291	.606**	.328*	.231
4 Organising	.874**	.892**	.909**	1	.354*	.555**	.314	.177
5 Support	.461**	.536**	.523**	.617**	1	.136	.063	.139
6 Evaluating	.597**	.660**	.631**	.734**	.546**	1	.604**	.033
7 Delegating	.442**	.470**	.501**	.570**	.362**	.615**	1	.088
8 Commitment	.409**	.441**	.444**	.519**	.377**	.383**	370**	1

** Correlation is significant at the 0.01 level (2-tailed).
 * Correlation is significant at the 0.05 level (2-tailed)

Teachers with 1-19 year's experience below the diagonal

Research Question 3: Is there a statistically significant difference in the level of commitment reported by male and female teachers?

The Student 't' test was used to determine if there was a significant difference in the commitment scores of male and female teachers. The results revealed no statistically significant difference in the level of commitment reported by male and female secondary school teachers. Male teachers (M = 3.05, SD = .502) and female teachers (M = 3.04, SD = .571), t(88) = .020, p = n.s. See Table 1-6 below.

Table 1-6 T Test for Male and Female Teachers N (90)

Variable	Gender				
	Males	Females	t	Df	2tailed (sig)
Commitment	3.05	3.04	.020	88	.984
	(.502)	(.571)			

Note. Standard Deviations appear in parenthesis below means. Males N = 34, Females N = 56

Research Question 4: Is there a statistically significant difference in the level of commitment reported by newer secondary school teachers and older secondary school teachers?

The Student 't' test was used to determine if there was a significant difference in the scores of newer secondary school and older secondary school teachers. The results point out that there was a statistically significant difference in the level of commitment reported by newer secondary teachers and older secondary school teachers. Newer secondary school teachers (M = 22.77, SD = 4.38) reported significantly lower means than older secondary school teachers (M = 25.33, SD = 4.00), t(88) = -2.754, p < .05, see Table 1-7 below.

Table 1-7 T Test for Newer and Older Secondary School Teachers

Variable	School				
	Newer Secondary	Older Secondary	t	Df	2tailed (sig)
Commitment	22.77	25.33	-2.754	88	.007
	(.502)	(4.00)			

Note. Standard Deviations appear in parenthesis below means. Newer Secondary N = 57, Older Secondary N = 33

Research Question 5: What are the combined and relative effects of evaluating, support, planning, decision making, communicating, organizing, and delegating on teacher commitment.

This question was answered using multiple regression analysis. The multiple R value (r = 0.43) speaks to the fact that there was a positive but low relationship between the combination of all the leadership sub-variables and teacher commitment. However, the ANOVA table (F = 2.788, p = 0.012) indicated that the combined contribution of the leadership variables to teacher commitment was significant. The regression model also indicated that the leadership variables in combination accounted for 19.2 % (R square = 0.192, P < 0.05) of the total variance in the commitment demonstrated by teachers, see Table 1-8 below.

Table 1-8 Combined Effects of Principal Leadership Sub-Variables on Teacher Commitment

Model	SS	Df	MS	F	Sig.
Regression	5.036	7	.719	2.778	0.012*
Residual	21.239	82	.259		
Total	26.275	89			

Note. Multiple R = 0.438 Multiple R Square = 0.192 Adjusted R Square = 0.123 *= p<0.05

Table 1-9 Relative Contributions of the predictor variables to the prediction of teacher commitment

Predictor Variables	Beta	T	P
Constant		8.245	.000*
Planning	.098	.467	.642
Decision Making	.064	.298	.766
Delegating	-.491	-1.725	.088
Communicating	.065	.235	.815
Organizing	.019	.068	.946
Support	-.143	-1.301	.197
Evaluating	-.138	-.899	.371

Note. *= p=0.000

In Table 1-9 above the relative effects of the variables on teacher commitment are captured. The findings indicated that the individual contributions of the variables were not significant. However, it must be observed that collectively the variables were significant p = 0.000.

5.0   Discussion and implications

In general, these results provide supporting evidence of the nexus between principal leadership and teacher commitment. The relationship between teacher commitment and principal leadership style is

supported in the literature. Henriques (1996) in a study of teacher attrition and staff turnover in four Jamaican schools found that teachers remained in specific schools mainly because of four factors. One of these factors was the principal leadership style. John and Taylor (1999) in a study involving schools in the Philippines found an interrelation of school climate, leadership style, and organizational commitment of teachers; while (Horng, Klasik, and Loeb, 2010) and (Devos, Tuytens, and Hulpia, 2014) gave support to the proposition that commitment is greater in schools characterized by high levels of administrative support, teacher collegiality, professional influence and positive behaviour. It must be noted, however, that even though the correlations between the two variables, while statistically significant, would have to be classified as low. This implies therefore that other variables beyond principal leadership are contributing to the levels of teacher commitment. This point was also made by (Elliot and Crosswell, 2001) and (Ibrahim, Ghavifekr, Ling, Siraj and Azeez, 2013) who argued that commitment was multidimensional and as a result factors external to the organisation as well as teachers' personal characteristics influenced teacher commitment.

A look at the relationship between leadership style and teacher commitment along gender lines painted a different picture. The stronger correlations for males over females was in direct contrast to that of Mbwiria (2010) who looked at the influence of principal leadership style on teacher career commitment. This study found that female teachers had a higher level of career commitment than their male counterparts. The finding was also inconsistent with that of (Collie, Shapka and Perry, 2011) who found that female teachers generally reported higher levels of commitment that their male counterparts.

A further analysis of the sub-variables of leadership suggests that males and females placed greater emphasis on different aspects of leadership. For the male teachers, the correlation scores for planning, decision making, communicating, support and organising were significantly higher and implied a greater influence on their level of commitment. On the contrary, the fact that the females teachers reported lower correlation scores on all the variables tapped, could indicate that their commitment was not directly influenced by principal leadership style. The fact that there is a difference in the strength of the correlations for males and females has implications for the way in which principals try to promote teacher commitment among their members of staff. There would be a need for principals to understand what drives commitment for each group and treat to the issues with some degree of specificity. The literature has indicated that there is a relationship between transformational leadership and teacher commitment, (Ross and Gray, 2006; Leithwood, Jantzi, and Steinbach, 1999). This study did not address that specific aspect, however, the results point to the need to further explore whether the relationship that was indicated, had its genesis in the transformational leadership style of the principals in the study.

The finding that the bigger the school, the more significant the correlations was in accord with that of Henriques (1996) who pointed to the link organisational factors, such as school size, and teacher commitment. In Barbados, students transition from primary to secondary on the basis of an examination known as the Barbados Secondary School Entrance Examination (BSSEE). Students are assigned to schools based on their academic performance. The net result of this approach is that a greater number of underperforming students are placed in what are called "newer secondary schools', similar to what are called inner city schools in the United States and a smaller number of high achievers are placed in "older secondary schools", similar to what would be regarded as charter schools in the United States. Overall, then working in newer secondary schools, with larger student populations is far more challenging. The conclusion that could be drawn from the foregoing is that at the older secondary schools, teachers' level of commitment is not related to their perceptions of principal leadership but as a result of what Firestone and Pennell (1993) call, 'other organisational conditions'. This finding however, runs counter to the findings of John and Taylor (1999) and Kelley (2005) who have consistently argued that that principal leadership style, school climate and commitment of teachers are related.

In fairness to the debate, one must hasten to add that in the Barbadian context, older secondary schools enjoy a high level of social prominence in contrast to their newer secondary counterparts, and to some extent there is a certain degree of status associated with teaching at such schools, therefore it is quite possible that teachers at such schools may be more committed to the status associated with teaching at

such schools rather than to the school itself. Therefore principal leadership would cease to be an influencing factor in their level of commitment.

In terms of teacher experience the findings suggest that the more experienced teachers and the older teachers reported weaker correlations between perceived principal leadership style and commitment, while the younger and less experienced group reported stronger correlations. This could be symptomatic of the mindset of the older and more experienced group. A lot of experienced teachers, either because of frustration or desire to leave teaching, tend to appear less committed. These findings are consistent with those of Mbwiria (2010) and Collie, Shapka and Perry (2011) who found that teachers with few years teaching experience were more committed to the teaching profession than those with more years of teaching experience. In the context of Barbados the declining level of commitment could also be attributed to the tenure system. In Barbados teachers are usually hired initially, on a temporary and a termly or yearly basis, if they perform well they are recommended for appointment to permanent positions, this process can take from one to seven years, therefore, it is in the interests of inexperienced and temporary teachers to demonstrate that they are worthy of permanent appointment, by exhibiting levels of commitment to the school and its myriad activities. It is for this same reason that afterwards one may see a waning of commitment. The reality is that after teachers have secured their permanent appointments, it is usually quite difficult to have them removed from the public service unless they bring the service into disrepute, and even in such cases the process is fraught with difficulty.

The finding that there was not a significant difference in the level of commitment of male and female teachers was inconsistent with that of Mbwiria (2010) who also examined principal leadership and teacher career commitment and found that female teachers were more committed to the teaching profession than male teachers. Similarly, Batt and Valcour (2003) examined the issue of commitment along gender lines suggest that females tend to be more committed than their male counterparts and are less inclined to leave their professions. This contrary finding in light of the fact that teachers teach in different types of schools suggests confirms the multidimensionality of the commitment construct and points to the need for further research to explore if other out-of-school variables could be influencing teacher commitment.

6.0   Conclusion

The findings of this study were instructive for two reasons. Firstly, the findings confirmed the relationship between principal leadership and levels of teacher commitment. Secondly, the findings underscored previous findings which have suggested that teacher commitment is a multidimensional construct which will vary in levels of intensity depending on the focus of the teachers in respective schools. The study also confirmed that teacher sex is a variable that is worthy of further investigation. In this study, the findings on sex were diametrically opposed to some of the findings in the literature. This could also be the subject of a future Caribbean wide study, to determine whether the finding was specific to Barbados or whether a similar picture would obtain in the context of other schools in the Caribbean.

The fact that biographical variables featured so significantly suggests areas for future research. More specifically, the difference in the level of commitment demonstrated by experienced and inexperienced teachers, points to the need for future research aimed at further understanding of the in- school and out-of- school factors that may be contributing to the commitment or lack thereof of the two cohorts of teachers. This is particularly important since in the Barbadian context, teachers are required to spend a minimum of 33 and 1/3 years in the service. If they are becoming progressively less committed, then there are serious implications for the quality of teaching and learning that will be offered.

The leadership in the Ministry of Education, Science, Technology and Innovation in Barbados, could experiment with offering higher salaries and other non-monetary incentives to experienced teachers in the middle of their careers, or create Master Teacher positions complete with compensation packages that communicate the value of experience. They could also experiment with career ladders for teachers and widen the middle management of schools to allow more opportunities for teachers to become

involved in the leadership of the school, this could potentially increase the levels of teacher commitment. The higher salaries and incentives could be pegged to an appraisal system, complete with teacher productivity targets thus promoting teacher accountability. For the principals, there is a need for a policy of in-service professional development, addressing such areas as human relations in the workplace and strategies for promoting teacher commitment. This would ensure that principals, irrespective of the number of years in the service, would remain relevant as they pursue the goal of leading effective schools.

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