RELATIONSHIP BETWEEN PROFESSIONAL DEVELOPMENT OF HEAD TEACHERS AND SUPERVISION OF INSTRUCTION IN GHANAIAN BASIC SCHOOLS

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ABSTRACT: While a number of training programmes are organized to strengthen the supervisory roles of headteachers in Ghanaian basic schools, research suggests that the quality of instructional supervision remains poor. Employing quantitative research paradigm, this study sought to explore the relationship between professional development and supervision of instruction of headteachers in the basic schools of one educational district in Ghana. The study results showed that while engagement in both formal and informal professional development activities correlated with instructional supervision, only the engagement in informal professional development activities significantly predicted supervision and evaluation of instruction. This suggests that informal learning experiences appear to be valuable than formal professional development activities in the selected district. Educational authorities in Ghana therefore need to coordinate and strengthen the existing informal/on-the-job learning strategies in schools to facilitate the supervisory skills of headteachers.

KEYWORDS: Professional Development, Supervision of Instruction, Formal Learning, Informal Learning, Ghana

INTRODUCTION

Over the past few decades, professional development of school leaders has appeared on the education agendas of most countries and it has been a central point of discussion (Bush, 2008; Huber, 2013). This is partly due to the increasing recognition that school leaders can make a difference in both the effectiveness and efficiency of schooling as well as the rapid changes in the context within which educational leaders work (Day & Leithwood, 2007; Rhodes & Brundrett, 2009). Consequently, initiatives are being developed and implemented in many countries around the globe, to enable principals and other leaders to access specialised training for their leadership roles (Bush, 2012).

In Ghana, though school leaders in the basic schools are appointed without any formal preparatory training (Donkoh, 2015; Zame, Hope, & Repress, 2008), research affirms that they benefit from a wide range of in-service professional learning programmes which aim at increasing the capacity of the leaders in order to bring about improvements in student learning outcomes (Kusi & Mensah, 2014; Malakolunthu, McBeath, & Swaffield, 2014). These training programmes which are mostly in the form of workshops and seminars are organized by the Ministry of Education, the Ghana Education Service, and some international agencies such as the World Bank, UNESCO, DFID, USAID and CIDA (Bush & Oduro, 2006).
1. The Institute for Educational Planning and Administration (IEPA) in Ghana, for example, in collaboration with the Institute of Educational Planning, Tanzania, and the Faculty of Education, University of Bath, has since 2004 been involved in a DFID-funded project that seeks to empower school leadership to successfully implement quality education initiatives in Ghanaian basic schools (Oduro & Dachi, 2010). Also, with funding and support from the commonwealth Education Trust, the leadership for learning (LfL) programme has been introduced in Ghanaian basic schools and that has led to the training of several school leaders since its inception in 2009 (Jull, Swaffield, & MacBeath, 2014; Malakolunthu et al., 2014). Moreover, research suggests that about 70% of organizational learning should take place on the job through solving problems and other day to day activities while another 20% of development experiences ought to occur through drawing on the knowledge of others in the workplace (Duberman, 2011). It is therefore anticipated that in addition to the existing formal professional development interventions, leaders in Ghanaian basic schools could benefit from a wide range of informal learning initiatives.

2. When educational leaders engage in professional learning programmes the expectation is that they will not only learn to develop new knowledge, skills, and attitudes during the programme but will also transfer that learning back to the workplace. This reaffirms the position that the purpose of training and development is to improve the performance of the organization and the individual and hence unless learning is transferred back into the workplace in the form of effective performance, it is of little value to organizations (Velada, Caetano, Michel, Lyons, & Kavanagh, 2007). Yet, while increased resources have been devoted to training and learning activities, concerns remain about the impact of the training and developmental activities on organizational effectiveness (Holton & Baldwin, 2003).

3. Despite the series of training interventions that are organized to strengthen the supervisory roles of school leaders in Ghana, research suggests that the quality of supervision and evaluation of instruction in basic schools remains poor (Donkoh, 2015; Oduro, Dachi, & Fertig, 2008). One of the major causes attributed to the deteriorating standard of education in Ghanaian public basic schools and the student achievement disparity between public and private basic schools has been weak supervision of teachers in schools (Amina, 2015; Ankomah & Hope, 2011). Consequently student learning outcomes in Ghanaian basic schools has fallen below the targets of the Ministry of Education as less than a third of primary school children reach proficiency levels in English or in Mathematics (World Bank, 2014). While the prevailing situation could mean that little of what leaders learn in training programmes impact on their supervisory practices in schools, such a claim cannot be conclusive since no empirical work has investigated the relationship between leadership learning and supervision and evaluation of instruction in Ghanaian basic schools.

4. Given that the GES and other international organizations provide in-service training programmes to strengthen the leadership capacities of leaders to provide effective supervision in schools and yet instructional supervision remains poor, this study sought to explore the relationship between professional development of headteachers and supervision and evaluation of instruction in the basic schools of Ghana. While some studies in Ghana have investigated the weaknesses of the existing in-service training programmes for headteachers (Kusi & Mensah, 2014; Oduro, 2003) and the nature of instructional supervision in schools (Amina, 2015; Baffour–Awuah, 2011), no empirical work has
investigated the relationship between the two concepts in Ghana. An exploration of this nature was therefore deemed relevant as it would shed lights on the extent to which formal as well as informal learning strategies of headteachers relate to their supervisory roles and practices in schools. This is relevant particularly in an educational context where most training interventions are donor-funded (Bush & Oduro, 2006).

LITERATURE REVIEW

Professional development of school leaders
Professional development activities encompass all activities and experiences that support leaders to improve practice, enhance confidence and increase efficacy, as well as those that challenge existing beliefs, attitudes, and understandings (Sofo, 2012). They consist of both formal and informal activities planned and implemented to equip and improve the knowledge, skills, competencies and attitudes, of professionals after taking up their leadership roles. Research suggest that formal leadership learning should be augmented by informal development provision in each school so that leadership is widely distributed and all staff have the opportunity to develop leadership skills and behaviours (Bolden, 2007; Bush & Glover, 2004) in order to provide an ‘expansive’ rather than a ‘restrictive’ form of workforce skill development (Fuller & Unwin, 2004).

Nonetheless, much of the literature shows that the most common approach to leadership development is the formal classroom programme in which basic beliefs of leadership are presented, discussed, and reflected on (Fenwick & Pierce, 2002; Holton & Baldwin, 2003). It is estimated that approximately 85 percent of organizations engaged in leadership development efforts use some version of classroom programmes (Day & Harrison, 2011). In an international review of school leaders across a range of high performing education systems, Barber, Whelan, and Clark, (2010) reported that there was good evidence that leaders who engaged in formal leadership development programmes were more effective, particularly when the training they received was of high quality. Other studies, however, suggest that a number of formal classroom-based leadership development programmes are not contributing to sustainable leadership effectiveness in schools (Brundrett & Derring, 2006; Holton & Baldwin, 2003). Most formal professional development includes a large amount of passive involvement (Fenwick & Pierce, 2002; Lawler, 2003) and appears to suffer from transfer of learning problems (Blackman, 2010). Many organizations are therefore realizing that formal classroom programmes are valuable but not completely adequate for effective leadership development (Hernez-Broome & Hughes, 2004).

As a result, efforts are been directed at modifying the design of formal leadership development programmes across several countries with much of the development work incorporating work-based learning practices (Bush, Kiggundu, & Moorosi, 2011; Simkins, 2009). The emerging trend is that different educational systems are increasingly developing leaders through a range of action modes and support mechanisms, often customised to the specific needs of leaders. Mentoring, coaching, networking, action learning, problem-based learning, and online learning are core components of these experiential learning approaches and have received much attention in the literature (Anderson & Cawsey, 2008; Bush, 2012; Daresh, 2004; Hernez-Broome & Hughes, 2004).
It appears, however, that these development approaches have not featured prominently in the literature in the developing countries including Africa partly due to limited research exploring the professional development activities (PDA) of school leaders (Ibrahim, 2011; Mushaandja, 2013). It could also be suggested that a whole different set of professional learning is employed by leaders in such contexts due to contextual differences. The few studies that have specifically explored the views of school leaders regarding their PDA in Africa have reported new sets of professional development opportunities which were principally informal and self-directed in nature.

In his study in Namibia, for example, Mushaandja (2013) found that the predominant self-development strategies employed by the principals were independent reading of government policy documents and manuals, learning from experiences of staff, learning from doing their work, and interacting informally with visitors and their superiors. The study of Ibrahim (2011) in Kenya equally found that the leaders in the study developed their leadership skills through challenges they face in schools and personal initiatives. He asserted that the day-to-day challenges and problems principals faced in schools and their attempts to solve them provided them with lessons from which they learned and developed. These corroborate the observations made by Oduro (2009) that most headteachers in Ghanaian basic schools gain awareness of their work through observing the activities and experiences of serving headteachers and through personal experiences. Research further shows that even in cases where workshops, seminars, and conferences are organized, they remain inaccessible to headteachers in the rural areas since the agencies that initiate such programmes do not allocate adequate funds to cover all headteachers (Kusi & Mensah, 2014). It is, therefore, certain that even in school contexts where formal leadership development interventions are minimal as is in the case of Ghana (Bush & Oduro, 2006; Zame et al., 2008), school leaders may still have a number of avenues to develop their leadership skills to improve their supervisory roles in schools.

**Supervision of Instruction**

Supervision of instruction is a key part of the principal’s role in ensuring that the planned changes are being effectively implemented in the classroom (Şahin, 2011). Zepeda (2003) contends that instructional supervision refers to the continuous monitoring of classroom teaching with the aim of not only promoting professional practices, but also to enhance professional development in a collegial and collaborative style. Research suggests that supervision needs to take place in a professional environment which values instructors’ contributions and promotes experimentation (Blasé & Blasé, 2004; Glickman, Gorden, & Ross-Gordon, 2004).

Glickman, Gordon, and Ross-Gordon (2010) make a distinction between conventional supervisory model and the collegial supervisory model. While the conventional model is based on principals evaluating the work of teachers in classrooms and providing guidance on that basis, the collegial supervisory model is broader and involves evaluation and guidance for teachers, as does the conventional model, but at the same time providing considerable indirect support and guidance outside of the classroom. The support and guidance in this context lies in the environment for professional development that is created for teachers. This is based on conditions being created for teachers to evaluate their work methods and alter them through group development, such as formal discussions about teaching and related matters.
Research has shown that the frequent presence of leaders within classrooms for the purpose of observing the impact of teachers’ work on student learning and providing them with subsequent feedback is a hallmark of leaders in high performing schools (Smith & Smith, 2015). Consequently, Blasé and Blasé (2004) believe that feedback should not be a formality, but should serve as a guide for instructional improvement when it is given genuinely. Louis, Leithwood, Wahlstrom, and Anderson (2010) found that high scoring principals frequently observed classroom instruction for short periods of time, making 20-60 observations a week, and most of the observations were spontaneous. Similarly, leaders in higher performing schools were distinguished from their counterparts in otherwise similar lower performing schools by their personal involvement in planning, coordinating, and evaluating teaching and teachers (O’Sullivan, 2006; Robinson, Lloyd, & Rowe, 2008).

In Ghana, a number of studies have investigated the nature of instructional supervision of headteachers in the basic schools (Amina, 2015; Ankomah, 2002; Baffour–Awuah, 2011). Ankomah (2002), for example, found that one of the characteristics of successful private schools in Ghana was the presence of strong leadership exhibited through supervision of teachers’ work. The study noted that in most successful private schools the headteachers visited classrooms during instructional time and provided feedback to teachers. Similarly, in her study in the Wa Municipality of Ghana, Amina (2015) revealed that a vast majority of teachers agreed that headteachers supervise their work in the school by keeping attendance registers for teachers, ensuring regular attendance of teachers to school, ensuring that teachers were punctual to class, regularly vetting teachers’ lesson notes, and visiting classrooms to observe teaching and learning activities. Nonetheless, while these studies shed lights on the nature of instructional supervision in the basic schools of Ghana, they did not specifically examine the extent to which instructional supervision was affected by professional development of the leaders.

METHODOLOGY

This study utilized quantitative research strategy by employing survey design. As a research strategy, quantitative research emphasizes quantification in the collection and analysis of data and entails a deductive approach to the relationship between theory and research (Bryman, 2008).

Study Context

The study was conducted in the basic schools of one educational district in Ghana. In Ghana, basic education comprises two years kindergarten, six years primary education and three years junior high school (JHS). Basic education in Ghana is centralized and all students are exposed to the same curriculum (Agezo, 2010). The district selected for the study was relatively a small one with a little over 60 communities. Most of the communities typical of the district were without pipe borne water supply and communities rather depended on water from the streams and rivers which were also polluted. Main economic activity for the people in the district was peasant farming and pineapple production was the main farming activity in the district. The district was chosen due to convenience because the district educational authorities granted permission for the study to be conducted in their schools.
Population, sample, and Sampling technique
The study population comprised of all headteachers in the selected district. The study restricted the selection of schools to only basic schools that had all the three segments of basic school (kindergarten, primary school, and JHS) in place. The reason was that headteachers in those schools had no additional teaching responsibility in addition to their leadership roles and would engage actively in supervision of instruction. To this end, 50 schools qualified for the study and thus the targeted sample was 50 headteachers.

Considering the small number of schools (n = 50), all the headteachers were purposively selected to serve as respondents for the study. In purposive sampling, cases are selected because they are information-rich and illuminative as they offer useful manifestations of the phenomenon of interest and relevant to the research questions (Bryman, 2008; Patton, 2002). All the headteachers sampled exercised active leadership in schools and engaged in leadership learning and thus possessed the required expertise to provide relevant information about their leadership learning, instructional supervision, and the extent to which their leadership learning affect their instructional supervisory roles.

Instrumentation and data collection procedure
To investigate the professional development activities of the headteachers, a list of 18 professional development activities was developed through a review of the related literature. Respondents were asked to rate how often they employed the various types of professional development activities to develop their supervisory roles and skills in their school. The rating scale consisted of five descriptors ranging from “1 to 5”: 1 = not at all, 2 = rarely, 3 = occasionally, 4 = frequently, 5 = very frequently.

Also, a five-item scale was used to measure supervision and evaluation of instruction. The supervision and evaluation scale is part of the Principal Instructional Management Rating Scale (PIMRS) (Hallinger, 1983) which measures the 10 instructional leadership job functions of principals. Permission for the use of the instrument was sought from the author. Respondents were asked to specify the frequency with which supervision and evaluation of instruction was practised as a result of their professional development experiences on a continuum ranging from 1 to 5: 1 = almost never, 2 = seldom, 3 = sometimes, 4 = frequently and 5 = almost always. In order to determine the reliability of the instrument, a pilot study was conducted in the Asikuma Odoben Brakwa district with 15 headteachers. Those who took part in the pilot test had similar characteristics to the study participants as recommended by Ary, Jacobs, Razavieh, and Sorensen (2006). The internal consistency reliability of the supervision and evaluation of instruction scale was .82. A section on the demographic characteristics of respondents was included as part of the study.

Prior to the commencement of the data collection process, permission was sought from the District Education Office of the selected District to conduct the study in their schools and consequently permission was granted. Thereafter, the researcher began visiting the schools to distribute the questionnaires and the copies of the permission letter obtained from the district education office to the participants. Consent of respondents was sought and this was expressed verbally by the headteachers. In all cases, the researcher returned to the schools at an agreed date to collect the completed questionnaires. Some schools were visited more than once before the researcher could retrieve the completed questionnaires.
Data Analysis

Data generated were entered into SPSS version 21 for analysis. Descriptive statistics, correlation, and regression analysis were employed in analysing the data. The descriptive statistics reported by utilizing means and standard deviations to examine the frequency with which the leaders engaged in professional development activities and supervision and evaluation of instruction. The correlation and regression analysis were employed to assess the relationship between professional development of leaders and supervision and evaluation of instruction. Testing was based on determining statistical significance at a two-tailed alpha level of 5%.

RESULTS

The demographic characteristics showed that majority of respondents (80%) were males while the minority (20%) were females. This showed that there was low representation of females in leadership positions in such a rural district of Ghana. The result further showed that while 60% of respondents had served more than 5 years, 40% had served less than 5 years. Regarding educational qualification, only 5 (10%) had obtained master’s degree qualifications. Majority of respondents, however, possessed bachelor degree (42%) and diploma in basic education (26%) qualifications. Moreover, 38% respondents were below 40 years of age while 62% were above 40 years.

Headteachers’ engagements in professional development activities

The frequency that respondents engaged in each of the 18 professional development activities for their professional growth is shown in Table 1.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Type</th>
<th>*M</th>
<th>*SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meetings of school leaders</td>
<td>Informal</td>
<td>4.14</td>
<td>0.83</td>
</tr>
<tr>
<td>Workshops, seminars, and forums</td>
<td>Formal</td>
<td>4.10</td>
<td>0.76</td>
</tr>
<tr>
<td>Unstructured &amp; non-intentional experiences resulting from work</td>
<td>Informal</td>
<td>4.02</td>
<td>0.68</td>
</tr>
<tr>
<td>Reading (books, newspapers, articles, magazines, etc.)</td>
<td>Informal</td>
<td>4.02</td>
<td>0.91</td>
</tr>
<tr>
<td>Coaching by supervisors, peers, and/or subordinates</td>
<td>Informal</td>
<td>3.80</td>
<td>1.01</td>
</tr>
<tr>
<td>Visitation to other schools</td>
<td>Informal</td>
<td>3.74</td>
<td>0.92</td>
</tr>
<tr>
<td>Conferences of school leaders (regional and national levels)</td>
<td>Formal</td>
<td>3.72</td>
<td>1.03</td>
</tr>
<tr>
<td>Performance appraisals</td>
<td>Informal</td>
<td>3.66</td>
<td>0.94</td>
</tr>
<tr>
<td>Participating in a committee or working party/taskforce</td>
<td>Informal</td>
<td>3.52</td>
<td>1.09</td>
</tr>
<tr>
<td>Classroom training - short-term or longer term courses</td>
<td>Formal</td>
<td>3.52</td>
<td>1.07</td>
</tr>
<tr>
<td>Challenging job assignments or projects completed on-the-job</td>
<td>Informal</td>
<td>3.50</td>
<td>0.74</td>
</tr>
<tr>
<td>School-based/cluster based in-service training</td>
<td>Formal</td>
<td>3.36</td>
<td>1.01</td>
</tr>
<tr>
<td>Informal mentoring</td>
<td>Informal</td>
<td>3.32</td>
<td>1.22</td>
</tr>
<tr>
<td>Internal and external ‘knowledge networks’</td>
<td>Informal</td>
<td>3.20</td>
<td>1.16</td>
</tr>
<tr>
<td>Acting in a more senior position</td>
<td>Informal</td>
<td>3.00</td>
<td>1.07</td>
</tr>
<tr>
<td>Secondment at same grade</td>
<td>Informal</td>
<td>2.42</td>
<td>1.11</td>
</tr>
<tr>
<td>On-line learning via Internet</td>
<td>Informal</td>
<td>2.32</td>
<td>1.27</td>
</tr>
<tr>
<td>Formal university-based leadership development</td>
<td>Formal</td>
<td>2.16</td>
<td>1.08</td>
</tr>
</tbody>
</table>

Notes: *M = Means, SD = Standard deviations
The results showed that respondents frequently engaged in four professional development activities to develop their leadership skills (ratings of 4+). It is worthy to note that three out of the four professional development activities that headteachers reported they frequently engage in were informal learning activities. In addition, there were 11 other professional development activities that headteachers “occasionally” engaged in to develop their leadership practices. Seven of these were allocated an average rating of 3.5 or more. On the other hand, three professional development activities obtained the lowest mean scores which were “rarely” engaged in by the respondents and these were secondment at same grade, online learning via Internet, and undertaking a university qualification.

**Headteachers’ engagements in supervision and evaluation of instruction**

Overall the result showed that headteachers “frequently” engaged in the supervision and evaluation of instruction in their school (Table 2). The result further showed that headteachers frequently engaged in nearly all the five behaviours associated with this job function with items 11 and 13 which were concerned with ensuring that the classroom priorities of teachers are consistent with the goals and direction of the school and conducting informal observations in classrooms on a regular basis obtaining the highest mean scores.

<table>
<thead>
<tr>
<th>Activity</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervision and evaluation of instruction</td>
<td>4.11</td>
<td>0.51</td>
</tr>
<tr>
<td>1. Ensure that the classroom priorities of teachers are consistent with the goals and direction of the school</td>
<td>4.34</td>
<td>0.59</td>
</tr>
<tr>
<td>2. Review student work products when evaluating classroom instruction</td>
<td>4.04</td>
<td>0.64</td>
</tr>
<tr>
<td>3. Conduct informal observations in classrooms on a regular basis (informal observations are unscheduled, last at least 5 minutes, and may or may not involve written feedback or a formal conference)</td>
<td>4.16</td>
<td>0.87</td>
</tr>
<tr>
<td>4. Point out specific strengths in teacher’s instructional practices in post-observation feedback (e.g., in conferences or written evaluations)</td>
<td>4.10</td>
<td>0.86</td>
</tr>
<tr>
<td>5. Point out specific weaknesses in teacher instructional practices in post-observation feedback (e.g., in conferences or written evaluations)</td>
<td>3.92</td>
<td>0.90</td>
</tr>
</tbody>
</table>

Notes: $M =$ Means, $SD =$ Standard deviations

Nonetheless, pointing out specific weaknesses in teacher instructional practices in post-observation feedback (e.g., in conferences or written evaluations) received the lowest rating among the five behaviours associated with supervision and evaluation of instruction.

**Relationship between professional development activities and supervision and evaluation of instruction**

To examine the possible relationships among the professional learning experiences and supervision and evaluation of instruction, correlation and regression analysis were conducted. Spearman’s rho correlation was utilised to determine the relationships among the 18 professional development activities and supervision and evaluation of instruction. The result showed that 10 out of the 18 professional development activities were significantly and positively correlated with supervision and evaluation of instruction (Table 3). Seven out of the 10 professional development activities that were significantly and positively related with supervision and evaluation of instruction were informal learning activities while three were formal learning activities.
Table 3: Correlation among professional development activities and supervision and evaluation of instruction

<table>
<thead>
<tr>
<th>Activity</th>
<th>Coefficients</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meetings of school leaders</td>
<td>0.230</td>
<td>0.108</td>
</tr>
<tr>
<td>Workshops, seminars, and forums</td>
<td>0.291</td>
<td>0.040*</td>
</tr>
<tr>
<td>Unstructured &amp; non-intentional experiences resulting from work</td>
<td>0.156</td>
<td>0.279</td>
</tr>
<tr>
<td>Reading (books, newspapers, articles, magazines, etc.)</td>
<td>0.336</td>
<td>0.017*</td>
</tr>
<tr>
<td>Coaching by supervisors, peers, and/or subordinates</td>
<td>0.340</td>
<td>0.016*</td>
</tr>
<tr>
<td>Visitations to other schools</td>
<td>0.598</td>
<td>0.000**</td>
</tr>
<tr>
<td>Conferences of school leaders (regional and national levels)</td>
<td>0.297</td>
<td>0.036*</td>
</tr>
<tr>
<td>Performance appraisals</td>
<td>0.328</td>
<td>0.020*</td>
</tr>
<tr>
<td>Participating in a committee or working party/taskforce</td>
<td>0.393</td>
<td>0.005**</td>
</tr>
<tr>
<td>Classroom training - short-term or longer term courses</td>
<td>0.510</td>
<td>0.000**</td>
</tr>
<tr>
<td>Challenging job assignments or projects completed on-the-job</td>
<td>0.350</td>
<td>0.013*</td>
</tr>
<tr>
<td>School-based/cluster based in-service training</td>
<td>0.246</td>
<td>0.085</td>
</tr>
<tr>
<td>Informal mentoring</td>
<td>0.151</td>
<td>0.296</td>
</tr>
<tr>
<td>Internal and external ‘knowledge networks’</td>
<td>0.300</td>
<td>0.034*</td>
</tr>
<tr>
<td>Acting in a more senior position</td>
<td>0.062</td>
<td>0.671</td>
</tr>
<tr>
<td>Secondment at same grade</td>
<td>0.160</td>
<td>0.268</td>
</tr>
<tr>
<td>On-line learning via Internet</td>
<td>0.154</td>
<td>0.285</td>
</tr>
<tr>
<td>Formal university-based leadership development</td>
<td>-0.016</td>
<td>0.913</td>
</tr>
</tbody>
</table>

Notes: **p < 0.01, two-tailed; *p < 0.05, two-tailed.

To further determine the relationship among formal and informal professional development activities and supervision of instruction, the 18 professional development activities were grouped into two, formal and informal. While the formal professional development experience variable composed of five formal professional development activities, the informal professional development experience variable composed of 13 informal professional development activities. Pearson product-moment correlations were computed to determine the relationship among formal and informal professional development activities and supervision and evaluation of instruction. The result showed that engagement in both formal and informal professional development activities significantly correlated with supervision and evaluation of instruction (Table 4).

Table 4: Correlations between formal and informal professional development activities and supervision of instruction

<table>
<thead>
<tr>
<th>Activity</th>
<th>Correlation coefficient</th>
<th>p- value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal professional development activities</td>
<td>0.461</td>
<td>0.001</td>
</tr>
<tr>
<td>Informal professional development activities</td>
<td>0.561</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Further, a simultaneous multiple regression analysis was conducted to determine whether formal and informal professional development activities had predictive relationships with supervision and evaluation of instruction. The result indicated that engagement in informal professional development activities significantly predicted supervision and evaluation of instruction (β = 0.44, p < 0.05). In contrast, engagement in formal professional development...
activities did not significantly predict supervision and evaluation of instruction ($\beta = 0.197$, $p = 0.187$). Together, engagement in formal and informal professional development activities accounted for 34% of the variance in supervision and evaluation of instruction.

**DISCUSSION**

Many countries around the globe now appreciate that school leadership is a distinct profession and different from that of a classroom teacher and thus initiatives are being developed and implemented to enable principals, and other leaders, to access specialized training for their leadership roles (Asia Society, 2012; Bush, 2012). Such developmental initiatives will equip them with knowledge and competencies that would enable them to focus on what matters most in schools by supporting the development of effective teaching, setting school goals, measuring performance, strategically allocating resources for teaching and learning, and partnering with community institutions to support the development of the whole child (Barber et al., 2010; Pont, Nusche, & Moorman, 2008; Smith & Smith, 2015).

Results from this study, however, have shown that majority of the professional development activities that were highly ranked by the headteachers in such a rural context in Ghana were informal learning methods. This confirms findings from other studies in Africa (Ibrahim, 2011; Mushaandja, 2013), England (Zhang & Brundrett, 2010), and US (Bizzell, 2011). Zhang and Brundrett (2010), for example, revealed that the professional learning of leaders in their study arose out of informal routes and involved a combination of learning from colleagues and learning from experience. Arguably, since the most frequently engaged professional development activities of headteachers were informal, self-initiated, and situated in their work context, application of such learning could be enhanced. This supports the view that professional development of leaders should be job embedded so that participants can easily apply the expertise and practices they learn in the school contexts (Goldring, Preston, & Huff, 2012; Gray & Bishop, 2009).

The predominant engagement of the headteachers in informal learning methods could be explained by the fact that the chosen district for this study was generally rural and those leaders could have limited access to formal developmental programmes. A number of studies in Ghana have shown that leaders in rural schools in Ghana were left unsupported after appointment and mostly gained awareness of the nature of their leadership tasks through their own efforts (Bush & Oduro, 2006; Oduro, 2009; Zame et al., 2008). It appears, therefore, that few formal developmental programmes exist in that context and the leaders are left to devise their own individual strategies to develop their professional growth. It could also be that even in cases where formal training programmes are organized sporadically, it is likely that many of these leaders might not be selected for ongoing professional development since they find themselves in a rural context. This confirms the assertion made by Oduro (2003) that professional development programmes for school leaders in Ghana were usually provided by international agencies for selected schools mostly drawn from urban and semi-urban areas and that such agencies often determined the number and category of schools to be involved.

The study results further showed that following their learning experiences headteachers frequently engaged in supervision and evaluation of instruction in their schools. This finding aligns with that of Ankomah and Hope (2011) who found that headteachers in the basic schools in the Brong Ahafo region of Ghana exercised instructional supervisory practices to
a large extent. Similarly, it confirms the study findings of Amina (2015) that the majority of teachers she studied in the Wa Municipality of Ghana agreed that their headteachers supervised all aspects of their work in their schools. Over the years, one of the major causes attributed to the falling standard of education in Ghanaian public basic schools and the student achievement disparity between public and private basic schools in Ghana has been weak supervision of teachers in schools (Amina, 2015; Ankomah, 2002; Ankomah & Hope, 2011). To that end, if headteachers in the study frequently engaged in supervision and evaluation of instruction in their schools, then a claim can be made that schools in the study district would realize effective teaching and learning which would ultimately improve students’ learning outcomes. This is in recognition that leaders in higher performing schools are distinguished from their counterparts in otherwise similar lower performing schools by their personal involvement in planning, coordinating, and evaluating teaching and teachers (Robinson et al., 2008).

A caveat, however, is that this study depended only on self-report ratings by the headteachers and their ratings might be susceptible to inflation. Past studies that had used the PIMRS had consistently concluded that principal self-report ratings yielded scores that were significantly and substantially higher than ratings obtained from teachers (Hallinger, 2011). Similarly, Ankomah and Hope (2011) found that teachers’ responses to their headteachers’ instructional supervisory practices in Ghana were slightly lower than the ratings of the headteachers themselves. Against this backdrop, one cannot conclude with certainty the effectiveness of the supervision and evaluation of instruction as reported by the headteachers in this study, but one can at least conclude that there is widespread knowledge and acceptance of its importance.

The study results further revealed that both formal and informal professional development activities have a relationship with supervision and evaluation of instruction in schools. This underscores the critical need to integrate both formal and informal learning interventions in school leadership development to promote organizational performance and student learning outcomes. Research suggests that formal leadership learning should be augmented by informal development provision in each school so that leadership is widely distributed and all staff have the opportunity to develop leadership skills and behaviours (Bush & Glover, 2004; Hernez-Broome & Hughes, 2004) in order to provide an ‘expansive’ rather than a ‘restrictive’ form of workforce skill development (Fuller & Unwin, 2004). This suggests that engagement in professional development activities has the potential to improve the supervisory practices of leaders in the basic schools of Ghana.

Nonetheless, while the engagement in both formal and informal professional development activities correlate with supervision of instruction, findings from the study showed that only the engagement in informal professional development activities significantly predict supervision and evaluation of instruction. This suggests that while both formal and informal professional development may have the possibility to impact on supervision and evaluation of instruction in schools, informal learning appears to be valuable than formal professional development activities in the selected district. This finding is congruent with Bickmore (2012) who found that informal professional learning experiences were associated with and predicted principal behaviours with respect to all factors of developmental responsive leadership investigated which was not the case for formal professional learning experiences.
This finding reinforces the relative importance of informal learning methods as a viable alternative form of learning for the headteachers in the basic schools in Ghana, especially those in rural contexts. While research suggests that the most common approach to leadership development is the formal classroom-based programmes (Day & Harrison, 2011; Fenwick & Pierce, 2002), there is a large body of literature that convincingly shows that informal and spontaneous work-related learning are important drivers for ongoing professional development (Eraut, 2000; Spillane, Healey, & Parsie, 2009). It is argued that changes in the way people learn within the contemporary work setting ‘means providing people opportunities to learn from their work rather than taking them away from their work to learn’ (Hernez-Broome & Hughes, 2004, p. 27). The existing informal/on-the-job learning approaches, therefore, need to be strengthened to facilitate the learning experiences of leaders in schools.

CONCLUSION AND IMPLICATIONS

Evidence drawn from this study shows that engagement in both formal and informal professional development activities have a relationship with supervision and evaluation in schools. This highlights the need for educational authorities in Ghana to consciously initiate sustainable professional development activities to strengthen the supervisory skills and competencies of leaders to promote effective teaching and learning in schools. Nonetheless, informal learning strategies were highly valued by the headteachers and significantly predicted supervision and evaluation of instruction. This suggests that existing informal learning opportunities need to be strengthened and well-coordinated in schools to make them more meaningful and relevant for the leaders. Professional learning communities that encapsulate a wide range of on-the-job learning methods could be explored to help sharpen the leadership competencies of the leaders.

The key challenge then lies in how to restructure and coordinate these informal learning activities in the district to make them viable for the leaders. To that end, the Ghana Education Service could employ the services of circuit supervisors and district INSET coordinators. Currently, each district in Ghana has a district educational directorate with officers who are responsible for the educational administration of the district. Each educational district is further subdivided into circuits with an appointed circuit supervisor who is responsible for the supervision of schools in the circuit. Circuit supervisors could be specifically assigned to coordinate the existing on-the-job/informal learning approaches of the headteachers by leading their readings and assigning projects that are connected to the challenges regarding supervision of instruction in their individual schools, facilitate their meetings by setting topics for discussions, and stimulating networking and visitations among them.

Notwithstanding the potential relevance of this study, the study is beset with some limitations. First, the study solely relied on the self-reported perceptions of headteachers’ engagement in professional development activities and supervision and evaluation of instruction. It is, therefore, possible that leaders would have rated themselves higher than the actual rate of engagement in professional development and supervision of instruction. Second, the relatively defined sample might not be large enough to warrant a broader generalisation of the result of this study beyond the chosen district in Ghana. To stimulate a national debate and policy reformulation in relation to the issues explored in the study, future
research could replicate the study in other educational districts by drawing on a larger sample so that generalizations to the basic schools in Ghana can be made.

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