



**WHO LEADS THE PACK? PROFILING
SCHOOL LEADERS' DEMOGRAPHIC BACKGROUNDS
FOR INSTRUCTIONAL LEADERSHIP PRACTICES
IN GHANAIAN PUBLIC BASIC SCHOOLS**

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Abstract:

The extent to which demographic characteristics of educational heads differentiate their instructional leadership practices has been a contentious matter for several decades. The aim of this study was to investigate the instructional leadership practices of school heads as well as examine the extent to which headteachers' gender, professional qualification, and work experience differentiated their instructional leadership practices in public basic schools in Ghana. This was a quantitative study underpinned by the positivist paradigm. The study employed the descriptive survey research design where 127 headteachers and 643 teachers were selected through census and proportionate stratified random sampling techniques respectively. The Principal Instructional Management Rating Scale (PIMRS) was adapted from Hallinger and Murphys (1985) and used to collect numerical data for the study which was analysed using descriptive statistics like mean and standard deviation as well as inferential statistics including independent samples t-test and one-way analysis of variance (ANOVA). The findings revealed that defining school mission dimension of instructional leadership practice was most prevalent among the headteachers as compared to managing the instructional programme and protecting school climate respectively. Additionally, the findings established that gender accounted for differences among headteachers in promoting a positive school climate where male headteachers rated higher than their female peers.

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Furthermore, the study established that work experience of the headteachers led to significant differences in defining school mission, managing instructional programme, promoting a positive school climate as well as the overall instructional leadership practice. Therefore, the study concluded that headteachers' gender matters in promoting a positive climate in the schools while the work experience of the headteachers is a determinant of differences in their instructional leadership practices in the schools. Based on these findings, the study recommended that Ghana Education Service through the Regional and District Directorates of Education should liaise with instructional leadership specialists to organise in-service and refresher training programmes for headteachers on instructional leadership practices so as to sustain, improve, and intensify its practice in public basic schools.

Keywords: headteachers, instructional leadership, education circuit, basic schools, demographic profile

1. Introduction

Formal education is widely accepted as the linchpin in shaping national development trajectory of modern societies (Dewi & Sowiyah, 2021). Globally, therefore, concerns for promoting effective schools have heightened among researchers and education practitioners in recent times. This situation arises due to the increased demand for accountability among education providers in improving students' learning outcomes (Nasreen & Dogar, 2022). Scholars note that school leadership is an essential determinant of education effectiveness in general, and education reform in particular (Esa, Muda, Mansor, & Ibrahim, 2018). In the perspectives of Education Improvement Research Centre (2022), school leadership plays a vital role in promoting learning and teaching in schools. Researchers (Onoye, 2022; Rodriguez, 2022) opine that the school head plays essential roles in promoting effective schools. According to Saleem, Deeba and Naz (2020), the core mandate of the school is to promote teaching and learning, and instructional leadership is a type of leadership in educational institutions that exclusively focuses on teaching and learning. Even though there are several factors that impact scholastic achievement of students, scholars observe that instructional leadership of the school head is crucial in enhancing academic achievement of students. It is argued that internationally, instructional leadership remains a topical subject in educational leadership due to its potency to augment the quality of learning in educational institutions (Puruwita, Jamian, & Aziz, 2022). Despite the demand on school heads to perform their administrative and management functions, there is a clarion call on them to tailor their attention and resources towards promoting learning outcomes of students (Gamage & McCormak, 2009), hence instructional leadership has been pointedly identified as a key factor in achieving successful learning.

Nasreen and Dogar (2022) conceptualise instructional leadership as the type of leadership that focuses primarily on providing support for school teachers by offering

opportunities for professional development that empowers these teachers to meet the diverse needs of students. The school head as an instructional leader provides guidance for teachers in their instructional practices, and creates a propitious school environment to foster learning among students (Nasreen & Dogar, 2022). Hallinger and Murphy (1985), one of the pioneers of instructional leadership, describe instructional leadership as encompassing all the activities of the school leader support learning and teaching in schools. It is deduced from these perspectives that the prime focus of instructional leadership is providing leadership for learning among students. Therefore, students are the key beneficiaries of effective instructional leadership in schools. However, scholars recognise the challenges that confront school leaders in enacting their instructional leadership role. For instance, Eslaban, Garcia and Amada (2022) observe that the responsibilities of the school head are enormous and diverse which poses difficulties regarding their effectiveness in performing their instructional leadership role. The preceding authors further notice that the hurdles of school heads in exercising instructional leadership intensify with the advent of Covid-19 pandemic which makes school heads to shift focus from providing quality education to sustaining the health needs of students.

Studies have been conducted to examine the practice of instructional leadership in educational institutions. In Sabah, a Malaysian state of Asia, Sultan *et al.* (2022) investigated headteachers' instructional leadership practices and their relationship with the performance of primary schools. The researchers employed Hallinger and Murphy's (1985) instructional leadership model as their theoretical framework. Out of a target population of 222 teachers, the researchers selected 141 teachers for the study based on Krejcie and Morgan's (1970) table of sample size determination. The quantitative approach was followed where the survey design was used to carry out the study through PIMRS questionnaire administration. The numeric data were analysed using descriptive statistics like percentages, mean, and standard deviation as well as inferential statistics including analysis of variance (ANOVA) and Pearson correlation with the aid of the Statistical Package for the Social Sciences version 21.0 software. The findings established that, the headteachers practised all the instructional leadership roles as specified in the model, but in varied intensities. Particularly, the findings showed that, promoting professional development of teachers was dominant among the headteachers (M=4.44, SD=0.586), followed by formulating school goals (M=4.42, SD=0.589), communicating school goals (M=4.40, SD=0.631), coordinating the curriculum (M=4.27, SD=0.646), providing incentives for learners (M=4.22, SD=0.661), supervising and evaluating instruction (M=4.16, SD=0.658), monitoring students' progress (M=4.15, SD=0.695), maintaining high visibility (M=4.04, SD=0.744), protecting instructional time (M=4.00, SD=0.735), and providing incentives for teachers (M=3.91, SD=0.816) respectively. Except the provision of incentives for teachers which was assessed as moderate, all the instructional leadership roles were rated as high among the headteachers. The researchers observed that, the findings reported in this study were based on the perceptions of the teachers alone without the views of the headteachers. Therefore, there was no opportunity for data triangulation of the

headteachers and teachers to get a balanced view of the instructional leadership practices.

In the Indonesian capital of Jakarta, Asia, Dita, Leele and Norazah (2022) examined administrators and teachers' perception of instructional leadership practices in vocational schools that were highly performing. Through the application of the multi-stage cluster sampling technique, a sample of 553 comprising 175 administrators and 378 teachers was selected for the study. The survey research design within the quantitative methodology was followed in the study, and the instructional leadership model proffered by Hallinger and Murphy (1985) served as the theoretical framework of the study. The findings showed that, the administrators rated their overall instructional leadership as high ($M=5.90$, $SD=0.58$). In relation to the three dimensions of instructional leadership, defining school goals was rated highest among the administrators ($M=6.28$, $SD=0.63$), followed by managing the instructional programme ($M=5.91$, $SD=0.70$), and promoting a positive school climate ($M=5.80$, $SD=0.64$) respectively. Likewise, the teachers rated the overall instructional leadership practices of their administrators as high ($M=5.54$, $SD=0.75$). The teachers further rated defining school goals highest ($M=5.86$, $SD=0.85$), followed by managing the instructional programme ($M=5.55$, $SD=0.86$) and promoting a positive school climate ($M=5.40$, $SD=0.83$) respectively. These findings showed that, the administrators rated their instructional leadership practices higher than the rating of their teachers on each of the dimensions of instructional leadership. The independent samples t-test results confirmed that, the differences in the perception of the administrators and teachers in relation to defining school goals ($t=6.058$, $df=393.775$, $p<0.05$), managing instructional programme ($t=4.905$, $df=361.611$, $p<0.05$), and promoting a positive school climate ($t=5.557$, $df=380.645$, $p<0.05$) were statistically significant. Unlike the study of *Sultan et al.* (2022), the findings of this study were based on the perceptions of both school leaders and teachers, hence the findings were drawn from the collective views of varied participants.

Fred and Singh (2021) carried out a study in Sarawak, Malaysia, and the purpose of the study was to investigate the practice of instructional leadership in rural primary schools with low enrolment. Using a sample of 132 participants, the researchers adopted the mixed methods approach, and they employed the Hallinger and Murphy's (1985) instructional leadership model as the study's theoretical framework. The Principal Instructional Management Rating Scale (PIMRS) was used to collect data for the quantitative phase which was analysed through descriptive and inferential statistics with the aid of IBM SPSS version 22.0. Interviews were used to collect data for the qualitative phase, and the thematic approach was used to analyse the qualitative data to complement the quantitative findings. The study revealed that, defining the school mission dimension of instructional leadership was dominant among the headmasters ($M=3.82$, $SD=0.83$), followed by managing the schools' instructional programmes ($M=3.60$, $SD=0.93$), while developing the school learning climate ($M=3.31$, $SD=0.95$) was less prevalent among the school leaders. The study further showed that, in relation to the instructional leadership subscales, the headmasters rated highest on communicating

the school goal ($M=3.84$, $SD=0.84$) as compared to framing the school goals ($M=3.80$, $SD=0.81$), coordinating the curriculum ($M=3.63$, $SD=0.84$), monitoring school progress ($M=3.61$, $SD=0.94$), promoting professional development ($M=3.58$, $SD=0.94$), supervising and evaluating instruction ($M=3.57$, $SD=0.80$), providing incentives for learners ($M=3.56$, $SD=0.96$), protecting instructional time ($M=3.53$, $SD=0.94$), maintaining high visibility ($M=3.31$, $SD=1.08$), whilst providing incentives for teachers recorded the least mean score among the headmasters ($M=3.27$, $SD=1.05$). Even though the researcher indicated that the mixed methods methodology was followed in carrying out the study, the author was unable to specify the exact research design within the mixed methods framework that was applied. On their part, Saad and Sankaran (2021) investigated the instructional leadership practices of heads in secondary schools in the Northern Region of Malaysia, especially in Perlis, Kedah and Penang. The researchers involved Hallinger and Murphy's (1985) instructional leadership model as the framework, therefore the PIMRS was used to collect data for the study. Out of a population of 11107 teachers, the researchers selected 243 teachers for the study through the simple random sampling technique. These researchers aligned with the quantitative methodology; hence they employed the descriptive survey design in the study. Descriptive statistics including mean and standard deviation were used to analyse the data. The findings disclosed that, the heads' practice of instructional leadership in the schools was high ($M=3.34$, $SD=0.60$). This implies that, the headteachers were conscious of their instructional leadership role, hence they paid attention to this style of leadership in their schools.

Wahab, Mansor, Hussin and Kumarasamy (2020) conducted a study among headmasters in Jasin District, Malaysia. The study sought to investigate headmasters' instructional leadership and its relationship with teachers' job performance. The study adopted a descriptive survey research design based on the quantitative approach. The researchers adopted the Hallinger and Murphy's instructional leadership model, hence they used the PIMRS questionnaire to collect data. A sample of 92 headteachers were selected through simple random sampling technique, particularly through the table of random numbers method. With the aid of the SPSS version 22.0, descriptive statistics such as mean, frequencies, and percentages and inferential statistics, mainly the Spearman's correlation, were used to analyse the data. The findings of the study pointed out that, encouraging professional development was most prevalent among the headmasters ($M=4.5891$, $SD=0.43208$), followed by developing school goals ($M=4.5500$, $SD=0.40829$), protecting instructional time ($M=4.5304$, $SD=0.47573$), supervising and evaluating teaching ($M=4.4848$, $SD=0.44989$), while monitoring students' progress was less dominant among the headmasters ($M=4.4522$, $SD=0.49514$). However, the study concluded that, all the dimensions of the headmasters' instructional leadership were highly practised in the schools ($M=4.5243$, $SD=0.35457$). Similar to the study of Sultan *et al.* (2022), these researchers did not collect data from the headteachers to cross validate the opinions of the teachers.

Other studies were carried out in Europe, particularly in Norway, Sweden, Denmark, and Finland by Veleti and Olsen (2020). The title of the study was "Developing a shared cluster construct of instructional leadership in Teaching and

Learning International Survey" (TALIS). The researchers employed Hallinger and Murphy's instructional leadership model within the school context in this study. Two dimensions in this model were used, including managing the instructional programme, and developing the school learning climate. The target population of the study was teachers and school heads in lower secondary schools in mainstream schools. Using a multi-stage probability sampling technique, 10688 participants were drawn from 676 schools. This sample comprised 1649 from Denmark, 2739 from Finland, 3319 from Sweden, and 2981 from Norway. The researchers analysed secondary data from TALIS 2013. Descriptive statistics and inferential statistics through the structural equation modelling were used to analyse the data. The findings pointed out that, the two instructional leadership dimensions, managing the instructional programme, and developing the school learning climate, were practised in the schools located in the study countries. The researchers posit that this study had a wider coverage in terms of participants selected from four countries (Denmark, Finland, Sweden, and Norway).

In Mashhad City, Iran, Hosseingholizadeh, Amrahi and El-farr (2020) carried out a study on instructional leadership, and teachers' collective efficacy, commitment, and professional learning in primary schools using a mediation model. The researchers included Hallinger and Murphy's (1985) instructional leadership theory, hence the PIMRS was used to collect data in the study by working within the quantitative research approach. School leaders (principals) and teachers in 230 out of 566 schools were selected from public elementary schools to participate in the study. The researchers applied both descriptive (mean and standard deviation) and inferential (structural equation modelling) statistics to analyse the data. The findings showed that, the mean score of the general instructional leadership among the school leaders was 4.19 with a standard deviation of 0.60. The findings further revealed that, defining school mission rated highest among the leaders ($M=4.26$, $SD=0.70$) as compared to managing instructional programme ($M=4.16$, $SD=0.71$) and developing a positive learning climate ($M=4.11$, $SD=0.72$). This study, however, did not report the individual subscales for the three dimensions of instructional leadership. Hence, it is difficult to determine which of these subscales were either most prevalent or least practiced among the school heads. In another study, Hui and Singh (2020) investigated the influence of instructional leadership on learning organizations in high performing primary schools in Malaysia, specifically in the states of Perak, Pulau Pinang, Kedah, and Perlis. The instructional leadership was situated within the Hallinger and Murphy's (1985) instructional leadership model, hence, the PIMRS questionnaire was used to collect data in the study. The researchers opted for the quantitative approach where numerical data were collected for statistical analysis. The stratified random sampling technique was used to select 286 participants from 14 high performing primary schools. The structural equation modelling analytical technique was used to analyse the data. It was established in the study that, the school leaders practiced instructional leadership within Hallinger and Murphy's (1985) framework. However, the study did not specify which of the dimensions of instructional leadership was dominant than the others.

In their study, McBrayer *et al.* (2020) investigated the instructional leadership practices and the self-efficacy of school leaders in South-eastern United States of America (USA). The instructional leadership practices of the study centred on the model of Hallinger and Murphy (1985), where the questionnaire was based on the PIMRS. The study focused on managing the instructional programme dimension of Hallinger and Murphy's (1985) instructional leadership framework, hence the indicators of this dimension such as supervising and evaluating instruction, coordinating curriculum, and monitoring student progress were involved in the study. The aim of the study was to examine leadership self-efficacy and the instructional leadership practices of school leaders. Following the quantitative approach, the researchers utilized the cross-sectional survey design to guide data collection and analysis. The target population of the study involved principals and their assistants in public schools in the South-eastern United States, including 180 schools from 18 school systems. The researchers applied the convenience sampling technique to select 100 participants for the study. The data were analysed with descriptive (mean, standard deviation, frequencies, percentages) and inferential (correlation, hierarchical linear regression) statistics. The study indicated that, supervising and evaluating instruction, coordinating curriculum, and monitoring student progress as the subscales of managing the instructional programme were practised in the schools. However, it is unclear which of these variables was most frequently used among the school leaders. Again, the use of the convenience sampling technique in a quantitative study violates the theory of sampling where convenience sampling is appropriate in qualitative studies. Consequently, the researchers dispute the representativeness of the sample respective to the population as well as the validity of the findings.

Contrary to the previous studies cited in this study which employed either the quantitative or the qualitative approach to the study of instructional leadership in educational institutions, Hallinger and Hosseingholizadeh (2019) explored the instructional leadership among high and low performing primary school heads in Iran using the mixed methods approach. Specifically, the researchers chose the sequential explanatory mixed methods design. Therefore, the researchers collected both qualitative and quantitative data from school leaders and teachers. The quantitative data collection was based on the PIMRS, whereas open-ended interviews were used to collect the qualitative data. The study involved 535 teachers and 70 headteachers which were drawn from 70 out of 398 primary schools located in the Mashhad City through cluster sampling technique which was carried out in two phases. The quantitative data were analysed through descriptive statistics like mean, percentages and standard deviation, while the qualitative data were analysed by generating categories from the data. The findings showed that, the general instructional leadership among the Iranian primary school heads was 4.23 with a standard deviation of 0.61. The study further revealed that, defining school mission was most frequently practised in the schools ($M=4.38$, $SD=0.59$), followed by managing instructions ($M=4.22$, $SD=0.64$), while developing school climate was least practised in the schools ($M=4.10$, $SD=0.67$). The researchers also noticed disparities in the use of instructional leadership between the teachers and

principals. However, the researchers were unable to test the statistical differences between the teachers and school heads in their rating of instructional leadership in the schools. In the Northern part of Peninsular Malaysia, Ismail, Don, Husin and Khalid (2018) investigated the instructional leadership among school leaders and the functional competency of the teachers. The researchers adopted Hallinger and Murphy's (1985) instructional leadership theory, hence, relied on the PIMRS questionnaire to collect data. The correlational design was employed in the study, hence the study was carried out within the quantitative research methodology. The researchers selected 225 teachers from 12 high prestigious primary and secondary schools through the application of the cluster sampling technique. The data were analysed using the descriptive statistics (mean, standard deviation) and inferential statistics (correlation). The study revealed that, the practice of instructional leadership among the school leaders was high ($M=3.94$, $SD=0.55$). This implied that the leaders were conscious about their instructional leadership role in the schools, which they frequently practised.

In another study, Abid, Saghir and Ayesha (2018) studied headteachers' instructional leadership in Lahore District of the Punjab Province, Pakistan. The researchers investigated components of Hallinger and Murphy's (1985) instructional leadership such as supervising and evaluating instruction, monitoring student's progress, providing motivation for teachers, and providing motivation for learners. The researchers employed the quantitative approach where the descriptive research design was applied. Data were collected through a self-developed questionnaire. A sample of 200 teachers drawn from secondary schools through random sampling technique were involved in the study. The data were analysed using inferential statistics like the independent sample t-test as well as descriptive statistics including percentages, frequencies, mean, and standard deviation. The findings revealed that the school heads practised a variety of instructional leadership. However, the findings showed that, supervising and evaluating instruction was dominant among the leaders ($M=3.88$, $SD=0.946$), followed by monitoring student's progress ($M=3.844$, $SD=0.912$), providing motivation for teachers ($M=3.744$, $SD=0.047$), whilst professional development was least practised in the schools ($M=3.670$, $SD=1.021$). The sample involved in the study suggests that, the findings of this study were based on teachers' perception without the views of the school heads.

Lang (2019) carried out another study in the Southeast USA, involving 18 out of 26 middle schools. The study sought to compare the instructional leadership practices of teachers and school managers in middle schools so as to design a differentiated learning. The researchers adopted Hallinger's (1983) instructional leadership where the PIMRS questionnaire was adapted to measure the instructional leadership component of the study. The survey research design was used to guide the study, which was carried out quantitatively. Data for the study were drawn from 171 teachers and 34 middle school heads. These participants were invited to participate in a survey which was done electronically. The findings revealed that, the administrators rated their instructional leadership at 3.95. The findings further showed that, the administrators rated themselves highest on protecting instructional time ($M=4.17$), followed by

supervising and evaluating instruction (M=4.14), communicating school goals (M=4.03), monitoring student progress (M=3.79), and providing professional development (M=3.83), whilst providing incentives for teachers was rated lowest (M=3.72) among their instructional leadership. In relation to the teachers' perception, the teachers rated the instructional leadership practices at a mean score of 3.61. The findings also pointed out that, the teachers scored their administrators highest on communicating school goals (M=3.96) as compared to monitoring student progress (M=3.77), protecting instructional time (M=3.68), supervising and evaluating instruction (M=3.65), providing professional development (M=3.47), and providing incentives for teachers (M=3.28). These results suggest that, the administrators rated themselves higher than the teachers concerning the instructional leadership practices among the school leaders.

Gurley, Anast-May, O'Neal and Dozier (2016) also carried out a study in the South-eastern Region of the USA. The aim of this study was to examine the instructional leadership behaviours of school heads based on the views of teachers and the school leaders themselves. These researchers adopted the instructional leadership framework of Hallinger and Murphy (1985), where they utilized the PIMRS questionnaire for data collection through an electronic platform. The survey research design was used, and the sample was invited through email to participate in the study. The participants included 17 school heads, and 407 teachers. The study pointed out that, defining the school goals emerged as the most prevailing instructional leadership behaviour among the heads (M=4.45, SD=0.43), followed by managing the instructional programme (M=4.35, SD=0.46), while developing the school learning climate was the least among the instructional leadership behaviours among the heads (M=4.18, SD=0.44). This suggests that, the instructional leadership behaviour of the school heads was rated at 4.33 (SD=0.44). The analysis of the subscales of instructional leadership outlined in the study showed that, the behaviours of the school heads were ranked as framing the school goals (M=4.60, SD=0.37), coordinating the curriculum (M=4.56, SD=0.46), promoting professional development (M=4.45, SD=0.55), protecting instructional time (M=4.44, SD=0.41), supervising and evaluating instruction (M=4.32, SD=0.54), communicating school goals (M=4.29, SD=0.62), providing incentives for learning (M=4.18, SD=0.69), monitoring student progress (M=4.16, SD=0.59), providing incentives for teachers (M=3.96, SD=0.76), and maintaining high visibility (M=3.85, SD=0.70).

Like other continents, several studies were carried out in Africa on instructional leadership practices in educational institutions. For instance, Muyunda (2022) investigated the impact of instructional leadership practices of principals on the academic achievement of students in the Province of Lusaka, Zambia. The researcher adopted Hallinger and Murphy's (1985) instructional leadership model as the theoretical framework of the study. Using the simple random sampling technique, the researcher selected 574 participants for the study, including 39 principals, 190 teachers, and 345 students from 38 high and low performing secondary schools. The descriptive survey design was used for the study which fell within the quantitative research approach. Data were collected through the use of the PIMRS questionnaire. Descriptive

statistics including mean and standard deviation were used to analyse the data. The findings revealed that, the principals rated highest on defining school mission ($M=4.05$, $SD=1.003$), followed by managing school instructional programme ($M=3.82$, $SD=0.964$) and promoting a positive school learning climate ($M=3.55$, $SD=1.311$) respectively. This finding suggests that the general practice of instructional leadership among the principals was rated at 3.81 ($SD=1.093$). Based on these findings, the researchers inferred that except defining school mission which was measured as very high, the overall instructional leadership as well as the other dimensions were rated as high among the principals in Lusaka Province, Zambia.

Likewise, Alemayehu (2021) conducted a study in the Ethiopian capital, Addis Ababa, which sought to investigate the instructional leadership practices, challenges and gains among private educational institutions. The instructional leadership model of Hallinger and Murphy (1985) guided the study. Using the simple random sampling technique, the researcher selected 500 respondents for the study, including 200 teachers, 100 heads of department, 100 principals, and 100 deputy principals. The researcher applied the mixed-methods approach in the study, where questionnaires and interviews were used to collect quantitative and qualitative data respectively. The questionnaire was adapted from the PIMRS developed by Hallinger and Murphy (1985). The quantitative findings showed that, the principals mostly practised the supervision and evaluation of instruction ($M=4.44$, $SD=1.45$), followed by monitoring students' progress ($M=4.42$, $SD=1.76$), defining school goals ($M=4.34$, $SD=1.21$), maintaining high visibility ($M=4.33$, $SD=1.79$), providing incentives for learners ($M=4.32$, $SD=1.97$), providing incentives for teachers ($M=4.22$, $SD=1.88$), promoting teacher professional development ($M=4.11$, $SD=1.69$), protecting instructional time ($M=4.11$, $SD=1.82$), and coordinating the curriculum ($M=3.98$, $SD=1.42$), while communicating school goals was least practised among the principals ($M=3.48$, $SD=1.32$).

In their study, Moeketsane, Jita and Jita (2021) investigated the correlation between the perspectives of subject leaders and their perceived competence in enacting instructional leadership in primary schools in Free State Province in South Africa. In the study, the researchers employed the descriptive research design within the quantitative research framework where they adapted structured questionnaires from Rajoo (2012) to collect data for the study. Using the purposive sample, 205 subject leaders were drawn from 100 schools. The study discovered that spending more time in the teaching role ($M=4.36$, $SD=0.831$) and reporting progress to senior management ($M=4.36$, $SD=0.758$) were rated highest as the subject leaders' instructional practice, followed by collaborative decision making ($M=4.33$, $SD=0.774$), systematic organization of teaching and assessment of learners ($M=4.31$, $SD=0.781$), effective monitoring of the curriculum ($M=4.30$, $SD=0.781$), and initiating a teacher support programme ($M=4.20$, $SD=0.785$), while representing the school to external stakeholders ($M=3.95$, $SD=0.800$) was least practised among the subject leaders. Based on these findings, the researchers concluded that, the participants possessed adequate knowledge of instructional leadership in Free State Province in South Africa. The researchers noticed that, the application of the purposive sampling technique, which is a non-probability sampling approach

appropriate for qualitative studies, in a quantitative study leads to a methodological inconsistency. Hence, there is no assurance that the sample is representative of the population, so this affects the validity of the findings.

Likewise in Ghana, analytical studies have been conducted on instructional leadership practices among school heads. On his part, Amakyi (2021) studied the instructional leadership practices among senior high school heads in Ghana. The researcher employed Hallinger's (2011) model of instructional leadership which incorporates Hallinger and Murphy's (1985) instructional leadership functions. The population for the study comprised 681 heads, but 300 of them were selected to participate in the study. The simple random sampling technique was used to select the sample, and Krejcie and Morgan's (1970) table of sample size determination was used to arrive at the sample size. The descriptive survey design was followed, and the PIMRS was used to collect data in the study which were analysed with descriptive statistics like mean and standard deviation. The findings revealed that, generally, instructional leadership practice of the heads was high ($M=3.30$, $SD=0.42$). The findings further showed that, even though the heads practiced defining school goals most ($M=3.51$, $SD=0.58$) as compared to promoting a positive school climate ($M=3.27$, $SD=0.25$) and managing instructional programme ($M=3.13$, $SD=0.44$), all these dimensions of instructional leadership were highly practiced in the schools. Comparison of the subscales established that, except coordinating the school curriculum which was low among the heads ($M=2.90$, $SD=0.62$), the other subscales of instructional leadership including communicating school goals ($M=3.59$, $SD=0.45$), framing school goals ($M=3.42$, $SD=0.61$), providing incentives for teachers ($M=3.36$, $SD=0.22$), promoting professional development ($M=3.35$, $SD=0.41$), providing incentives for learning ($M=3.34$, $SD=0.44$), monitoring student progress ($M=3.30$, $SD=0.28$), supervising and evaluating instruction ($M=3.20$, $SD=0.61$), maintaining high visibility ($M=3.18$, $SD=0.50$), and protecting instructional time ($M=3.13$, $SD=0.21$) were highly practiced by the heads.

Abonyi (2016) also conducted a PhD study on professional development, instructional leadership, and learning transfer among school leaders. In the study, the researcher chose Hallinger's (1983) instructional leadership theory, hence the PIMRS questionnaire was used to collect data on the instructional leadership component of the study. The researcher followed the mixed methods research approach where the concurrent mixed methods design was adopted to direct the study. The purposive sampling technique was used to select 50 participants for the qualitative stage, while the population sampling was employed to select 150 participants for the quantitative stage, including 50 headteachers, 50 assistant headteachers, and 50 form masters. The thematic approach was used to analyse the qualitative data, while the quantitative data were analysed with descriptive (mean, percentages, frequencies, standard deviation) and inferential (one-way analysis of variance) statistics. Based on the average responses of the headteachers, assistant headteachers, and form masters, the findings indicated that, the school leaders ranked highest on monitoring student progress ($M=4.11$) as compared to communicating the school goals ($M=3.85$), supervision and evaluation of instruction ($M=3.84$), framing the school goals ($M=3.75$), providing incentives for

learning (M=3.69), protecting instructional time (M=3.68), and providing incentives for teachers (M=3.32). This finding implied that, the general instructional leadership practice of the school leaders was 3.75. Based on the conflicting findings on the instructional leadership practices among the school leaders, this study sought to examine kinds of instructional leadership practices of headteachers in public basic schools.

Differences in the practice of instructional leadership based on the leaders' demographic characteristics like gender, professional qualification, and years of teaching experience have caught the attention of researchers. For instance, Abonyi, Adjei-Boateng and Ansaah (2022) examined the extent to which gender differentiated the instructional leadership practices among headteachers in Ghana. In the study, the researchers analysed their data by employing the independent samples t-test and one-way analysis of variance (ANOVA). The findings showed that, gender did not account for differences in the instructional leadership of male and female headteachers in relation to framing school goals (male: M=4.28, SD=0.59, female: M=4.23, SD=0.50; $t=0.680$, $df=261$, $p=0.497$); communicating school goals (male: M=4.17, SD=0.64, female: M=4.13, SD=0.64; $t=0.440$, $df=261$, $p=0.660$); supervision and evaluation of instruction (male: M=4.09, SD=0.66, female: M=4.04, SD=0.63; $t=0.550$, $df=261$, $p=0.583$); coordinating the curriculum (male: M=4.21, SD=0.59, female: M=4.12, SD=0.58; $t=0.016$, $df=261$, $p=0.257$); monitoring student progress (male: M= 4.11, SD= 0.65, female: M=4.00, SD=0.69; $t=1.279$, $df=261$, $p=0.202$); protecting instructional time (male: M=3.93, SD=0.62, female: M=3.91, SD=0.61; $t=0.207$, $df=261$, $p=0.836$); and providing incentives for teachers (male: M=3.86, SD=0.82, female: M=3.81, SD=0.71; $t=0.518$, $df=261$, $p=0.605$). These findings imply that, gender is not a determinant of differences in instructional leadership among headteachers in Ghana. Contrarily, Awan, Jabeen and Ali (2022) discovered in Sargodha District, Pakistan, that there was a statistically significant difference in providing incentives for learners [$t(167)=-3.987$, $p=0.000$]. The study by Sultan *et al.* (2022) in Malaysia compared the instructional leadership practices of male and female headteachers. The researchers employed the ANOVA test to carry out the analysis, and the findings showed that, there was no statistically significant difference in the headteachers' practice of instructional leadership due to gender ($F=0.793$, $p>0.05$). Likewise, in Fred and Singh's (2021) study in Asia, the researchers compared the instructional leadership of male and female headteachers in Miri, Sarawak. The researchers established that there was a statistically significant difference in the instructional leadership practices of female and male headteachers ($t=2.963$, $df=122$, $p=0.004$) at 0.05 alpha level. However, these researchers did not report the mean scores of the male and female headteachers' instructional leadership which served as the basis for the comparison.

In relation to years of teaching experience, Awan *et al.* (2022) employed analysis of variance (ANOVA) test to compare the instructional leadership of school heads. They reported statistically significant differences in the instructional leadership of headteachers due to the years of teaching experience, especially in relation to instructional supervision [$F(4,164)=5.075$, $p=0.000$], curriculum coordination [$F(4,$

164)=3.220, $p=0.014$], protecting instructional time [$F(4,164)=9.306$, $p=0.000$], and overall instructional leadership [$F(4,164)=2.735$, $p=0.031$]. However, the researchers did not report the mean scores of instructional leadership for the various categories of years of teaching experience. Okoth (2018) also investigated the instructional leadership of headteachers based on their years teaching experience in Siaya County, Kenya. The researcher employed the Chi-square test to analyse the data. The findings showed that, years of teaching was not linked to the instructional leadership of the headteachers (Pearson's Chi-square test=0.523, Likelihood ratio 0.73, $p>0.05$). However, the researcher did not report the scores for instructional leadership based on the various years of teaching experience.

Sultan *et al.* (2022) investigated the extent to which professional qualification accounted for differences in the headteachers' instructional leadership practices. Through the application of the ANOVA test, the findings showed that there was no statistically significant difference in the practice of instructional leadership among the headteachers due to their professional qualification ($F=0.529$, $p>0.05$). Okoth (2018) further examined the link between instructional leadership and headteachers' professional qualification. By applying the Chi-square test, the researcher discovered that there was an association between instructional leadership and headteachers' professional qualification Pearson Chi-square test=0.035, Likelihood ratio=0.512, $p<0.05$). The findings emanating from previous studies suggest that, there are controversies in relation to the extent to which gender, teaching experience, and professional qualification account for differences in the instructional leadership of school heads.

Therefore, this study was guided by the following research question and hypotheses:

RQ: What kind of instructional leadership do headteachers practice in public basic schools?

H₀₁: There is no statistically significant difference in the instructional leadership practices of male and female headteachers in the schools.

H₀₂: Headteachers' professional qualification does not account for statistically significant differences in their practice of instructional leadership in the schools.

H₀₃: There is no statistically significant difference in the instructional leadership practices of headteachers based on their work experience.

The findings of the study would be significant in two ways. Firstly, it is hoped that the finding of the study would enlighten headteachers on the extent to which they practice instructional leadership in the schools. This information would guide their exercise of instructional leadership in the schools. Secondly, it is anticipated that the finding of the study would inform education managers about the extent to which headteachers' demographic profile such as gender, professional qualification, and work experience differentiated their instructional leadership practices. This would guide decisions on the categories of headteachers that required targeted support in their instructional leadership role.

2. Methodology

The researchers adopted the descriptive survey design within the positivist quantitative approach. This design was deemed appropriate for the study because it affords researchers to describe and interpret a phenomenon in its current conditions, attitudes, opinions, practices and beliefs (Polit & Beck, 2018). Cohen, Manion and Morrison (2018) also vouch for this research design because it is commonly used in educational research where most of the issues that are investigated are mostly descriptive in nature. This design was deemed appropriate because the researchers were interested in the description of the headteachers' instructional leadership practices in their schools through the collection of numerical data from a large sample. Out of a target population of 1170, the sample size comprised 127 headteachers and 643 teachers who were selected through census and proportionate stratified random sampling techniques respectively. The teachers were categorised based on their education circuit, proportions of teachers in each circuit were determined relative to their sizes in the population, and these proportions were used to calculate the sample size for each circuit as well as their gender distributions. The sample size constituted 66% of the target population, which is consistent with the proposal by Mugenda and Mugenda (2009) that at least 50% of the target population is adequate in quantitative studies. However, data from 730 participants were used in data analysis, representing a response rate of 94.8%. This implies that 40 questionnaires were not included in the analysis because 30 questionnaires were not returned while 10 had several missing data. This response rate was adequate based on the recommendation of scholars that a response rate of 30% - 40% is adequate in surveys (Saunders, Lewis, & Thornhill, 2019).

The Principal Instructional Management Rating Scale (PIMRS) was adapted from Hallinger and Murphy's (1985) instructional leadership model. The adaptation took the form of revising the wording of some items to make them appropriate to the research participants and context. Therefore, the researchers changed the wording of some items to relate to the Ghanaian basic school context. Therefore, "principal" was changed to "headteacher", "student" was changed to "learner", and "faculty" was changed to "staff". The PIMRS contains three major scales. These are defining the school mission, managing instructional programme, and promoting school climate. Defining the school mission has two subscales (framing school goals, communicating school goals); managing instructional programme contains three subscales (supervising and evaluating instructions, coordinating curriculum, and monitoring students' progress); and promoting school climate has five subscales (protecting instructional time, promoting professional development, maintaining high visibility, providing incentives for teachers, and providing incentives for students). The questionnaire was made up of two parts. The first part collected bio-data of the participants, including gender, professional qualification and years of work experience. The second part collected data on instructional leadership practices on a 5-point Likert scale, including almost always (5), frequently (4), sometimes (3), seldom (2), almost never (1). The questionnaire was pre-tested to ascertain its validity and reliability. The construct validity of the

questionnaire was assessed through exploratory factor analysis. Firstly, the suitability of the data for factor analysis was determined through the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's test of sphericity as presented in Table 1.

Table 1: Results of Data Suitability for Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.889
Bartlett's Test of Sphericity	Approx. Chi-Square	7704.327
	df	496
	Sig.	0.000

Fieldwork Data (2023).

The results in Table 1 revealed that KMO value met the cut-off point of 0.60 while Bartlett's test of sphericity was statistically significant ($p < 0.05$), which confirmed that the data was appropriate for factor analysis (George & Mallery, 2019).

Table 2: Factor Extraction and Rotation Results

	Component							
	1	2	3	4	5	6	7	8
FSG2	0.896							
FSG4	0.865							
FSG3	0.846							
SEI3		0.893						
SEI2		0.869						
SEI4		0.868						
PIL2			0.867					
PIL3			0.854					
PIL4			0.834					
CSG3				0.883				
CSG2				0.861				
CSG4				0.826				
MPP3					0.846			
MPP2					0.819			
MPP1					0.772			
PRIT3						0.793		
PRIT2						0.771		
PRIT4						0.725		
CC3							0.805	
CC1							0.762	
CC4							0.725	
PIT4								0.798
PIT2								0.729
PIT3								0.705
Total	8.635	4.158	3.033	2.138	1.717	1.519	1.313	1.197
% of Variance	26.985	12.995	9.479	6.682	5.367	4.746	4.103	3.742
Cumulative %	26.985	39.980	49.459	56.141	61.508	66.254	70.357	74.099

Fieldwork Data (2023).

Secondly, factor extraction was carried out through Principal Component Analysis (PCA), using Kaiser's criteria where factors with eigenvalues of at least 1.0 were extracted for rotation (Hair, Black, Babin, & Anderson, 2019) as presented in Table 2. Out of the 10 factors included in the analysis, eight (8) were extracted and subsequently rotated using Varimax rotation technique.

The results in Table 2 revealed that items on promoting professional development and maintaining high visibility did not load on their respective factor. The results showed that, out of a total variance of 74.099, framing school goals contributed the highest variance (26.985) while protecting instructional time contributed the least variance (3.742). After the factor analysis, 24 out of the initial 50 items in the questionnaire were retained for data collection.

Reliability of the questionnaire was determined through internal consistency where the split-half technique was applied as presented in Table 3.

Table 3: Split-half Reliability Results

Cronbach's Alpha	Part 1	Value	0.809
		N of Items	12 ^a
	Part 2	Value	0.884
		N of Items	12 ^b
	Total N of Items		24
Correlation between Forms			0.758
Spearman-Brown Coefficient	Equal Length		0.828
	Unequal Length		0.828
Guttman Split-Half Coefficient			0.822

Fieldwork Data (2023).

Spearman-Brown coefficient in Table 3 was at least 0.80 which confirmed that the questionnaire was reliable (Bell, Bryman, & Harley, 2019).

Descriptive statistics including mean and standard deviation were used to analyse the research question while inferential statistics comprising independent samples t-test and one-way analysis of variance (ANOVA) were used to test the hypotheses. The mean and standard deviation were appropriate because the interval scale was used to collect data on instructional leadership practices (Leedy & Ormrod, 2021). The mean scores were interpreted as very low (1.00 to 2.00), low (2.01 to 3.00), high (3.01 to 4.00), and very high (4.01 to 5.00) as recommended by scholars in a 5-point Likert scale (Nunnally & Bernstein, 1994). The standard deviation was useful to determine the variability of the data about the mean score using ± 3 threshold (Roni, Merga, & Morris, 2020). The independent samples t-test and the one-way ANOVA were appropriate to compare differences in the means of two and more than two groups respectively, where the independent variable is a categorical variable and the dependent variable is a continuous variable (Ewing & Park, 2020).

3. Findings and Discussion

RQ: What kind of instructional leadership do headteachers practice in public basic schools?

The aim of this research question was to find out the instructional leadership practices among the headteachers. To provide answers to this research question, the researchers computed descriptive statistics such as mean and standard deviation for each variable. The analysis was based on three scales, including defining school mission, managing instructional programme, and promoting school climate. Defining school mission comprised framing school goals, and communicating school goals. Managing the instructional programme consisted of monitoring learners' progress, coordinating school curriculum, and supervising and evaluating instruction, while promoting school climate included protecting instructional time, providing incentives for learners, and providing incentives for teachers. The findings are presented in Table 4.

Table 4: Kinds of Instructional Leadership Practices

	Min. Statistic	Max. Statistic	Mean Statistic	Std. Error Std. Error	Std. Deviation Statistic	Interpretation
FSGs	1	5	3.983	0.023	0.630	High
CSGs	1	5	3.974	0.029	0.775	High
DSM	1	5	3.978	0.024	0.643	High
MPP	1	5	3.941	0.030	0.797	High
CSC	1	5	3.845	0.031	0.826	High
SEI	2	5	3.821	0.029	0.773	High
MIP	1	5	3.869	0.025	0.678	High
PITM	2	5	3.838	0.028	0.747	High
PRIP	1	5	3.735	0.033	0.893	High
PRIT	1	5	3.490	0.034	0.911	High
PSC	2	5	3.688	0.027	0.715	High
OILP	2	5	3.845	0.023	0.614	High

Note: The higher the mean score, the higher instructional leadership is practiced.

Source: Fieldwork Data (2023).

Note: FSGs (framing school goals); CSGs (communicating school goals); DSM (defining school mission); MPP (monitoring learners' progress); CSC (coordinating school curriculum); MIP (managing the instructional programme); SEI (supervising and evaluating instruction), PITM (protecting instructional time); PRIT (providing incentives for teachers); PSC (promoting school climate); OILP (overall instructional leadership practice).

The findings in Table 4 revealed that, the minimum and maximum values confirmed that there were no outliers in the data. Inspection of the standard deviation values showed that, they fell within the ± 3 threshold for assessing normality of data distribution. Generally, the findings established that, defining school mission component of the headteachers' instructional leadership practice was most prevalent

($M=3.978$, $SD=0.643$), followed by managing the instructional programme ($M=3.869$, $SD=0.678$), and promoting school climate ($M=3.688$, $SD=0.715$) respectively. The findings further showed that, the overall instructional leadership practice of the headteachers was 3.845 with a standard deviation of 0.614. The subscales for defining the school mission indicated that, the headteachers practised framing school goals more ($M=3.983$, $SD=0.630$) than communicating school goals ($M=3.974$, $SD=0.775$). For managing the instructional programme, the findings showed that monitoring the learners' progress was most prevalent among the headteachers ($M=3.941$, $SD=0.797$), followed by coordinating the school curriculum ($M=3.845$, $SD=0.826$), and supervising and evaluating instruction ($M=3.821$, $SD=0.773$) respectively. The findings further showed that, in relation to promoting the school climate, protecting instructional time was dominant among the headteachers ($M=3.838$, $SD=0.747$) as compared to providing incentives for learners ($M=3.735$, $SD=0.893$), and providing incentives for teachers ($M=3.490$, $SD=0.911$) respectively. However, all the dimensions of instructional leadership as well as their subscales were rated high as put forward by Nunnally and Bernstein (1994). Therefore, the researchers concluded that, the headteachers practised all the instructional leadership dimensions included in the study, but in different intensities. The findings of the study implies that the headteachers were aware of their instructional leadership role in the schools, hence they highly practised the instructional leadership functions in their schools.

The findings showed that generally, the headteachers' instructional leadership was rated with a mean score of 3.845 and a standard deviation of 0.614. This result was interpreted as high. This implies that, the practice of instructional leadership among the headteachers was prominent in the schools. The finding of this study is in synch with findings of previous analytical studies conducted in Mashhad City, Iran by Hosseingholizadeh *et al.* (2020), Iran by Hallinger and Hosseingholizadeh (2019), Jasin District, Malaysia by Wahab *et al.* (2020), Northern part of Peninsular Malaysia by Ismail *et al.* (2018), Southeast USA by Lang (2019) and Gurley *et al.* (2016), and in Ghana by Abonyi (2016) where the researchers reported that instructional leadership was highly practised among the headteachers. This implies that the school headteachers prioritised the practice of instructional leadership as part of their leadership responsibilities in various countries. In terms of the three dimensions of instructional leadership, this study revealed that defining the school mission was dominant among the headteachers ($M=3.978$, $SD=0.643$), followed by managing the instructional programme ($M=3.869$, $SD=0.678$), and protecting the school climate ($M=3.688$, $SD=0.715$) respectively. These findings are consistent with the findings of previous studies carried out in several countries like Indonesia (Dita *et al.*, 2022), Malaysia (Fred & Singh, 2021), Iran (Hosseingholizadeh *et al.*, 2020; Hallinger & Hosseingholizadeh, 2019), and USA (Gurley *et al.*, 2016). It is not surprising that the findings of this study and previous studies established that defining school mission was dominant among the headteachers because it provides a strategic direction that guides the formulation and implementation of policies and programmes (Day, Sammons, & Gorgen, 2016). The researchers inferred from this view that, determining the mission of a school sets the

focus and future direction that the school aspires to achieve, hence it serves as the foundation on which other actions, behaviours, and programmes are centred. Therefore, activities relating to managing instructional programme and promoting a positive school climate are derived from the school mission which serves as the basis of all school activities.

Scrutiny of the eight instructional leadership components disclosed that, the headteachers rated highest on framing school goals ($M=3.983$, $SD=0.630$), followed by communicating school goals ($M=3.974$, $SD=0.775$), monitoring the learners' progress ($M=3.941$, $SD=0.797$), coordinating the school curriculum ($M=3.845$, $SD=0.826$), protecting instructional time ($M=3.838$, $SD=0.747$), supervising and evaluating instruction ($M=3.821$, $SD=0.773$), providing incentives for learners ($M=3.735$, $SD=0.893$) while providing incentives for teachers ($M=3.490$, $SD=0.911$) was least practised among the headteachers. These findings support the findings of previous studies which showed that framing school goals was most prevalent among instructional leaders in Malaysia and USA (Sultan *et al.*, 2022; Wahab *et al.*, 2020; Gurley *et al.*, 2016), while providing incentives for teachers was least practiced among instructional leaders in Malaysia, USA, and Ghana (Sultan *et al.*, 2022; Fred & Singh, 2021; Lang, 2019; Abonyi, 2016). Contrary to the finding of this study that framing school goals was dominant among the headteachers, the findings of extant studies indicated that communicating school goals (Fred & Singh, 2021), supervising and evaluating instruction (Alemayehu, 2021; Abid *et al.*, 2018), and protecting instructional time (Lang, 2019) were prevalent among instructional leaders in Malaysia, Ethiopia, Pakistan, and USA respectively. Again, the findings of studies like Wahab *et al.* (2020) and Alemayehu (2021) revealed that monitoring students' progress and communicating school goals were least practiced by the instructional leaders in Malaysia and Ethiopia respectively, which disputed the findings of this study.

It is worth to note that headteachers in this study highly practised the various dimensions of instructional leadership outlined in this study. For instance, headteachers are expected to set goals for the school in consultation with the staff and other education stakeholders because school goals justify the existence of the school, guide programmes and activities of the school, and determine the resources needed to achieve the goals (Dinelti, Rhona, Rusdinal, & Nurhizrah, 2022; Zakaria & Mokhtar, 2022). According to Herpanda, Devanda, Desriandi, Gistituati and Rusdinal (2022), school goals are used as benchmarks for assessing the effectiveness of the school. However, scholars observe that school leaders adopt a top-down approach in formulating school goals which may not be accepted by the staff (Lubis, Dewi, Pristanti, Dalimunthe, & Sagala, 2022). The school leader is also required to communicate the school goals to teachers, learners, and all education stakeholders to direct them to attain optimum performance in teaching and learning (Lubis *et al.*, 2022). Communicating school goals is crucial because it inspires the teachers and other stakeholders to endorse the goals, and engender their commitment towards the achievement of the goals (Leithwood, 2021). This scholar, however, cautions instructional leaders to be mindful in adopting

most effective strategies in communicating the goals so as to enhance the support of the teachers, students, and other stakeholders.

To ensure the achievement of goals, the headteachers are expected to monitor the progress of students and the performance of teachers because monitoring helps to determine the extent to which progress is made, discover bottlenecks that hinder progress, and what could be done to maximise the realization of targets (Herpanda *et al.*, 2022). However, Okonkwo, Oladejo and Alimba (2022) observe that, there is inadequate monitoring in schools which militates against the realization of set goals. Additionally, supervision and evaluation of instruction is vital in ensuring the effectiveness of teachers and learners in demonstrating commitment in discharging their duties in the school as well as empower the teachers to render valuable instructional services to students (Basilio & Bueno, 2021). However, scholars note that supervision and evaluation of instruction have not been effective in several schools (Okonkwo *et al.*, 2022). To maximise performance, instructional leaders are required to provide incentives to teachers and learners to direct their efforts towards the achievement of goals (Okonkwo *et al.*, 2022; Ikrama, Ghavifekra, & Kenayathulla, 2021). Instructional leaders, therefore need to acknowledge the performance of their teachers and learners, and sustain and improve performance by offering them incentive packages.

3.1 Test of Hypotheses

H₀₁: There is no statistically significant difference in the instructional leadership practices of male and female headteachers in the schools.

The aim of this hypothesis was to determine whether there were statistically significant differences between male and female headteachers in their practice of instructional leadership. The independent samples t-test was deployed to analyse the data as presented in Table 5.

The researchers used the Levene's test to examine the assumption of homogeneity of variance, and the results in Table 5 showed that this assumption was fulfilled for gender and all the instructional leadership practices ($p > 0.05$). The study revealed that, except promoting a positive school climate where there was a statistically significant difference for male ($M=3.81$, $SD=0.632$) and female ($M=3.61$, $SD=0.752$); [$t(728) = 0.323$, $p < 0.05$, 2-tailed], there were no statistically significant differences between male and female headteachers in the practice of defining school mission [$t(728) = -0.097$, $p > 0.05$, 2-tailed], managing instructional programme [$t(728) = 1.396$, $p > 0.05$, 2-tailed] as well as the overall instructional leadership [$t(728) = 1.876$, $p > 0.05$, 2-tailed]. Despite the difference in the practice of promoting a positive school climate, the effect size was small [Eta squared (η^2) = 0.0176] based on Cohen's (1988) threshold of determining magnitude of difference.

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 WHO LEADS THE PACK? PROFILING SCHOOL LEADERS' DEMOGRAPHIC BACKGROUNDS
 FOR INSTRUCTIONAL LEADERSHIP PRACTICES IN GHANAIAN PUBLIC BASIC SCHOOLS

Table 5: Mean, Standard Deviation and T-test Results for Gender and Instructional Leadership Practices

ILP	Gender	N	Mean	Std. Dev.	Std. Error Mean	Levene's Test for Equality of Variances		t-test for Equality of Means							
						F	Sig.	t	df	Sig. (2-tailed)	Mean Diff.	Std. Error Diff.	95% Confidence Interval of the Difference		η^2
													Lower	Upper	
DFM	Male	274	3.98	0.627	0.038	0.387	0.534	-0.097	728	0.922	-0.005	0.049	-0.101	0.092	0.0176
	Female	456	3.98	0.654	0.031										
MIP	Male	274	3.91	0.660	0.040	1.081	0.299	1.396	728	0.163	0.072	0.052	-0.029	0.174	
	Female	456	3.84	0.688	0.032										
PSC	Male	274	3.81	0.632	0.038	1.680	0.323	3.616	728	0.000	0.196	0.054	0.090	0.303	
	Female	456	3.61	0.752	0.035										
OILP	Male	274	3.90	0.577	0.035	1.228	0.268	1.876	728	0.061	0.088	0.047	-0.004	0.180	
	Female	456	3.81	0.633	0.030										

*p<0.05 (2-tailed)

Source: Field Data (2023).

This means that 1.76% of the difference in promoting a positive school climate was attributed to the gender of the headteachers. This finding implies that, while the male and female headteachers practiced similar instructional leadership practices in relation to defining school mission, managing instructional programme, they differed in their practice of promoting a positive school climate where the male headteachers practiced this instructional leadership domain higher than their female counterparts. Therefore, the null hypothesis was rejected in connection to promoting a positive school climate while the researchers failed to reject the null hypothesis in terms of defining school mission, managing instructional programme as well as the overall instructional leadership practice.

The finding which revealed that gender did not lead to differences in the instructional leadership practices resonates with findings from Ghana and Malaysia where gender did not differentiate between the instructional leadership practices of male and female headteachers (Abonyi *et al.*, 2022; Sultan *et al.*, 2022). Despite the similarity of this study's findings and other studies conducted in Pakistan (Awan *et al.*, 2022) and Malaysia (Fred & Singh, 2021) which discovered significant differences in the practice of instructional leadership among school leaders where females were better instructional leaders than their male peers, this study departed from those studies by establishing that male headteachers practiced promoting school climate more than their female colleagues. These findings are consistent with contemporary leadership theories where attention has shifted from who the leader is (trait theories) to what the leader does (behavioural theories) as well as the situation within which leadership is practiced (contingency theories) (Northouse, 2019). Bourke, Barry, Brown and White (2011) further argued that leadership effectiveness is not contingent on gender because leadership is an independent construct that is detached from one's gender orientation. Scholars maintain that, in situations where there are differences in the leadership practices of males and females, it is influenced by societal and cultural norms and stereotypes that shape the perceptions of followers (Eckel, Gangadharan, Grossman, & Xue, 2020).

H₀₂: Headteachers' professional qualification does not account for statistically significant differences in their practice of instructional leadership in the schools.

The purpose of this hypothesis was to investigate the extent to which headteachers' professional qualifications differentiated their instructional leadership practices in the schools. The one way-ANOVA analytical test was used to analyse the data. The Levene's test results in Table 6 confirmed that the assumption of homogeneity of variance was attained ($p > 0.05$).

Table 6: Homogeneity of Variance Results for Professional Qualification and Instructional Leadership Practices

Instructional Leadership	Levene Statistic	df1	df2	Sig.
Defining school mission	2.608	2	727	0.128
Managing instructional programme	2.511	2	727	0.130
Promoting school climate	2.091	2	727	0.154
Overall instructional leadership practice	2.371	2	727	0.145

Source: Field Data (2023).

The ANOVA results are presented in Table 7.

Table 7: ANOVA Results for Professional Qualification and Instructional Leadership Practices

Instructional Leadership	Qualification	N	Mean	Std. Dev.	Std. Error	Sum of Squares	df	Mean Square	F	Sig.
Defining school mission	Diploma	173	4.04	0.592	0.045	0.862	2	0.431	1.042	0.353
	Bachelor's Degree	492	3.96	0.672	0.030	300.692	727	0.414		
	Masters	65	3.98	0.537	0.067	301.554	729			
	Total	730	3.98	0.643	0.024					
Managing instructional programme	Diploma	173	3.97	0.647	0.049	2.266	2	1.133	2.472	0.085
	Bachelor's Degree	492	3.83	0.701	0.032	333.179	727	0.458		
	Masters	65	3.89	0.555	0.069	335.445	729			
	Total	730	3.87	0.678	0.025					
Promoting school climate	Diploma	173	3.63	0.739	0.056	1.108	2	0.554	1.083	0.339
	Bachelor's Degree	492	3.71	0.718	0.032	371.846	727	0.511		
	Masters	65	3.65	0.627	0.078	372.955	729			
	Total	730	3.69	0.715	0.026					
Overall instructional leadership practice	Diploma	173	3.88	0.583	0.044	0.230	2	0.115	0.305	0.737
	Bachelor's Degree	492	3.83	0.638	0.029	274.486	727	0.378		
	Masters	65	3.84	0.507	0.063	274.716	729			
	Total	730	3.85	0.614	0.023					

*p<0.05

Source: Field Data (2023).

The ANOVA results in Table 7 established that there were no statistically significant differences in the practice of defining school mission [$F(2, 727) = 1.042, p > 0.05$], managing instructional programme [$F(2, 727) = 2.472, p > 0.05$], promoting school climate [$F(2, 727) = 1.083, p > 0.05$] as well as the overall instructional leadership practice [$F(2, 727) = 0.305, p > 0.05$] based on the headteachers' professional qualification. These results imply that headteachers of different professional qualification practiced similar instructional leadership in the schools, hence the professional qualification of the headteachers did not matter in determining variances in their instructional leadership practices in the schools. Based on these findings, the researchers failed to reject the null hypothesis "Headteachers' professional qualification does not account for statistically significant differences in their practice of instructional leadership in the schools was rejected for all the dimensions as well as overall instructional leadership among the headteachers".

The findings of this study conflicts with Okoth's (2018) finding in Kenya where the professional qualification of the headteachers differentiated their practice of

instructional leadership. However, the findings of Sultan and colleagues (2022) in Malaysia where the professional qualification of the headteachers did not account for differences in their instructional leadership practices affirmed the finding of this study. Consistent with the findings of this study, the professional qualification of leaders in itself is insufficient to determine differences in their instructional leadership practices. Rather, the field of specialization where the professional qualification is acquired could account for differences in the leadership practices of the school heads. For instance, a Bachelor's degree holder in educational leadership may outperform a master's degree holder in other fields of knowledge not related to leadership.

H₀₃: There is no statistically significant difference in the instructional leadership practices of headteachers based on their work experience.

The one-way ANOVA test was used to analyse data so as to answer this hypothesis. The Levene's results in Table 8 revealed that the assumption of homogeneity of variance was sustained ($p > 0.05$).

Table 8: Homogeneity of Variance Test Results for
 Work Experience and Instructional Leadership Practices

Instructional Leadership Practices	Levene Statistic	df1	df2	Sig.
Defining school mission	0.423	5	724	0.381
Managing instructional programme	0.050	5	724	0.451
Promoting school climate	0.497	5	724	0.239
Overall instructional leadership practice	0.578	5	724	0.164

Source: Field Data (2023).

The one-way ANOVA results are presented in Table 9. The results in Table 9 revealed that there were statistically significant differences among the headteachers in the practice of defining school mission [$F(5, 724) = 2.452, p < 0.05, \eta^2 = 0.0167$], managing instructional programme [$F(5, 724) = 3.335, p < 0.05, \eta^2 = 0.0225$], promoting a positive school climate [$F(5, 724) = 2.461, p < 0.05, \eta^2 = 0.0167$] as well as the overall instructional leadership practice [$F(5, 724) = 2.925, p < 0.05, \eta^2 = 0.0198$] based on the headteachers' work experience. However, the effect size for each of the dimensions as well as the overall instructional leadership practice was small based on Cohen's (1988) recommendation. Consistent with these findings, the null hypothesis that "There is no statistically significant difference in the instructional leadership practices of headteachers based on their work experience" was rejected.

Table 9: ANOVA Results for Work Experience and Instructional Leadership Practices

		N	Mean	Std. Dev.	Std. Error		Sum of Squares	df	Mean Square	F	Sig.	η^2
DSM	1-5	80	4.00	0.702	0.078	Between Groups	5.021	5	1.004	2.452	0.032	0.0167
	6-10	203	3.95	0.611	0.043	Within Groups	296.533	724	0.410			
	11-15	260	4.05	0.624	0.039	Total	301.554	729				
	16-20	96	3.85	0.796	0.081							
	21-25	51	3.82	0.491	0.069							
	26-30	40	4.10	0.486	0.077							
	Total	730	3.98	0.643	0.024							
MIP	1-5	80	4.01	0.699	0.078	Between Groups	7.552	5	1.510	3.335	0.006	0.0225
	6-10	203	3.81	0.718	0.050	Within Groups	327.893	724	0.453			
	11-15	260	3.92	0.620	0.038	Total	335.445	729				
	16-20	96	3.78	0.766	0.078							
	21-25	51	3.63	0.632	0.088							
	26-30	40	4.03	0.499	0.079							
	Total	730	3.87	0.678	0.025							
PSC	1-5	80	3.62	0.703	0.079	Between Groups	6.232	5	1.246	2.461	0.032	0.0167
	6-10	203	3.68	0.711	0.050	Within Groups	366.723	724	0.507			
	11-15	260	3.77	0.707	0.044	Total	372.955	729				
	16-20	96	3.54	0.752	0.077							
	21-25	51	3.54	0.636	0.089							
	26-30	40	3.84	0.755	0.119							
	Total	730	3.69	0.715	0.026							
OIL	1-5	80	3.88	0.644	0.072	Between Groups	5.440	5	1.088	2.925	0.013	0.0198
	6-10	203	3.81	0.613	0.043	Within Groups	269.276	724	.372			
	11-15	260	3.92	0.587	0.036	Total	274.716	729				
	16-20	96	3.73	0.707	0.072							
	21-25	51	3.67	0.511	0.072							
	26-30	40	3.99	0.525	0.083							
	Total	730	3.85	0.614	0.023							

*p<0.05

Source: Field Data (2023)

The researchers proceeded to examine where the differences in the instructional leadership existed the headteachers with varied work experience using the Tukey HSD test as presented in Table 10.

Table 10: Tukey HSD Test Results for Work Experience and Instructional Leadership Practices

			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Managing instructional programme	1-5 years	6-10 years	0.193	0.089	0.250	-0.06	0.45
	21-25 years	1-5 years	-0.371*	0.121	0.026	-0.72	-0.03

*The mean difference is significant at the 0.05 level

Source: Field Data (2023).

The Tukey HSD test results in Table 10 showed that significant difference was found where headteachers with 1-5 years of work experience practiced managing instructional leadership more (M=4.01, SD=0.699) than those who had 21-30 years of work experience (M=3.63, SD=0.632). This means that headteachers with few years of work experience

were keen at managing instructional programme than their colleagues with more years of work experience.

In relation to work experience, the finding of the study agrees with the finding of Awan *et al.* (2022) which discovered that there were significant differences in the instructional leadership practices of headteachers in Pakistan where experienced headteachers practiced instructional leadership better than their less experienced counterparts. However, Okoth's (2018) finding in Kenya contradicts the finding of the current study where work experience did not differentiate the practice of instructional leadership among the school heads. Therefore, the general assertion of Serrat (2020) that most leaders require experience for their leadership development and practice, hence more experienced individuals are most probable to become better leaders than less experienced ones do not apply in this study.

4. Conclusions and Recommendations

A major finding of the study was that, the headteachers highly practiced all the instructional leadership dimensions proposed by Hallinger and Murphy (1985). Among the three main domains of instructional leadership, defining school mission was dominant among the headteachers, followed by managing the instructional programme, and protecting the school climate respectively. Therefore, the headteachers were aware of their instructional leadership role in the schools which they highly practiced. However, it was evident that the headteachers require support to equip them to practice their instructional leadership to very high levels. Another key finding of the study was that gender accounted for differences in the practice of promoting a positive school climate where male headteachers rated higher than their female peers unlike other instructional leadership functions including defining school mission, managing instructional programme as well as the overall instructional leadership. Consistent with the finding that male headteachers had an edge over the female headteachers in promoting a positive school climate, the researchers maintain that female headteachers need empowerment to catch up with their male colleagues in promoting a positive school climate in the schools.

Furthermore, the study revealed that professional qualification did not differentiate in the instructional leadership practices of the headteachers. This finding implies that the professional qualifications of the headteachers are not among determinants of variations in their instructional leadership practices. Therefore, public discourse on factors that distinguish among headteachers in their instructional leadership practices does not include professional qualifications of the headteachers. Finally, the study revealed that the work experience of the headteachers led to differences in their instructional leadership practices even though the differences were small. Particularly, the study established that headteachers with minimum years of work experience performed higher in managing instructional programme than those of the penultimate work experience. Evidently, the finding established that new recruited

headteachers were more poised to managing instructional programme as compared to their counterparts with more years of work experience.

Based on these findings and conclusions, the study recommended that the Ghana Education Service through the Regional and District Directorates of Education should liaise with instructional leadership specialists to organise in-service and refresher training programmes for headteachers on instructional leadership practices so as to sustain, improve, and intensify its practice in public basic schools. Even though both male and female headteachers need support in practicing instructional leadership, the study recommended that female headteachers should be given targeted attention and more support in performing the role of promoting a positive school climate so that they can be at par with their male fellows. Additionally, the study recommended that education authorities should formulate guidelines on recruitment and selection of prospective headteachers in public basic schools that place premium on prospects and competences in instructional leadership matters rather than their professional qualifications. Finally, the study recommended that education managers should motivate and encourage headteachers with more years of work experience to reinforce their instructional leadership practices, especially in managing instructional programme.

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Ethical Approval and Consent to Participate

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Declaration of Conflicts of Interest

The authors declare no conflict of interest.

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