DISSERTATIONES
PEDAGOGICAE
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Determining school heads' practices aimed at ensuring school quality and the resulting job stress factors: a study of senior high school heads in Ghana

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UNIVERSITY OF TARTU
Press
1632

Institute of Education, Faculty of Social Sciences, University of Tartu, Estonia

Dissertation was accepted for the commencement of the degree of Doctor of Philosophy (in Educational Sciences) on the 31st of October 2022 by the joint Doctoral Committee of the Institute of Education and Institute of Ecology and Earth Sciences for awarding doctoral degrees in education.

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Commencement: Institute of Education in the University of Tartu, 5 Jakobi Street, room B148, 9th December 2022, at 10 a.m.

This research was supported by the European Regional Development Fund through the Archimedes Foundation and assistance from the Doctoral School

ISSN 1406-1317
ISBN 978-9916-27-093-6 (print)
ISSN 2806-2434 (pdf)
ISBN 978-9916-27-094-3 (pdf)

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University of Tartu Press
www.tyk.ee

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LIST OF ORIGINAL PUBLICATIONS

This doctoral thesis is based on the following original publications, which are referenced in the text by their Roman numerals:

I **Bedi, I. K.,** & Kukemelk, H. (2020). School Heads' Practices Defined. *Journal of Educational and Social Research,* 10(5),187–199

II **Bedi, I. K.,** Kukemelk, H., & Bardone, E. (2021). Practices, personal and school factors that influenced school heads' job stress and satisfaction. *European Journal of Educational Research,* 10(1), 51–62. https://doi.org/10.12973/eu-jer.10.1.51

III **Bedi, I. K.,** & Kukemelk, H. (2021). Influence of age and school type on reform practices performed by school heads. *Mediterranean Journal of Social Sciences,* 12(5), 82–89. https://doi.org/10.36941/mjss-2021-0046

IV **Bedi, I. K.,** Kukemelk, H., & Bardone, E. (2022). Developing Quality Schools: A Content Analysis of School Heads' Practices, Stressors, and Support Factors. Manuscript submitted for publication.

Paper related to research

Bedi, I.K., & Kukemelk, H. (2018). School Principals and Job Stress: The Silent Dismissal Agent and Forgotten Pill in the United Nations Sustainable Development Goal 4. *US-China Education Review B*, 8 (8), 357–364. https://doi.org/10.17265/2161-6248/2018.08.004.

Author contribution

The author contributed to the publications in the following way:

Article I: Participating in the instrument development process, formulating the research questions, developing the methodology, planning and carrying out the data collection and analysis and writing the paper as the main author in cooperation with co-authors.

Article II: Designing the study, formulating the research questions, performing the statistical data analysis and writing the paper as the main author in cooperation with co-authors.

Article III: Designing the study, formulating the research questions, performing the statistical data analysis and writing the paper as the main author in cooperation with co-authors

Article IV: Designing the study, formulating the research questions, planning and carrying out data collection and analysis and writing the paper as the first author in cooperation with co-authors.

1. INTRODUCTION

Worldwide, school leadership is recognised as a significant factor in improving school quality and, for that matter, quality education delivery (Fullan, 2007; OECD, 2020), and Ghana is no exception. Leadership involves a process of influencing a group toward the attainment of set goals, and the leader is the driver who can influence others and possesses managerial authority (Bodla & Nawaz, 2010; Bush & Glover, 2003; Hariri, 2011; Robbins, 2003; Yukl, 2006). In a school, the Head is the main figure in charge of a school's management and administration and is supported by Assistant School Heads (also referred to as Vice Principal, Assistant Headmaster or Assistant Headmistress), together referred to as school leaders. School leaders are considered pillars of the educational system and significant agents in promoting school effectiveness (Esia-Donkoh, 2014). Further, research shows that the quality of leadership provided in schools is essential in creating a positive school climate to improve learner outcomes (Leithwood et al., 2008; Robinson, 2007).

However, the "professionalism" of teachers and school leaders differs across countries and contexts, which are probably influenced by the behaviour of teachers and school leaders themselves and by policy (OECD, 2020). Therefore, in the organisation of schools, the leadership exhibited in the schools, which is demonstrated through the various practices performed by the school head as a significant stakeholder, is paramount in bringing about improvement in the educational outcomes and school quality in general (Huber, 2010; Hallinger & Heck, 2010; Kukemelk & Ginter, 2016; OECD, 2009). Huber et al. (2013), writing on preferences and strains in school leadership practices in three German-speaking countries – Germany, Austria and Switzerland – and within the context of the World School Leadership Study (WSLS), indicated that the practices of school heads could be grouped under nine thematic areas. The WSLS aims to gain empirical insights into job models, practices, job satisfaction, and the professional health of school leaders on a global scale. The practices, as outlined by Huber et al. (2013), were grouped under the following themes: Development of Teaching Practice, Education, Guidance and Counselling, Human Resource Management and Staff Development, Organisation and Administration, Quality Assurance, Quality Development, Representation, Cooperation with External Partners and Collaboration within the School.

Further, touching on the practices of school heads, Day et al. (2010), cited in Ainley and Carstens (2018), identified eight practices that could lead to successful school leadership. These practices are outlining the vision and values of the school, improving teaching and learning conditions, redesigning and enriching the curriculum, restructuring the organisation, enhancing teacher quality, building relationships outside the school community, enhancing teaching and learning, and building relationships inside the school community (ibid). Then, writing on the practices of primary school head teachers in Ghana, Esia-Donkoh (2014) indicated that school heads must perform the following vital functions: planning; financial administration; staff and pupil personnel services; effective record

keeping and management; ensuring effective school-community relationship; improving school facilities and educational materials. Regarding the heads of secondary schools (senior high schools) in Ghana, a reference to one appointment letter (GES/DG.10/VR/22/06) of a senior high school head outlined the general expected practices of heads of senior high schools in Ghana. The senior high school head is responsible for the administration of the school according to the provisions of the Ghana Education Service. Specifically, the head is expected to do the following core practices: ensure that effective teaching and learning take place in the school; protect and safeguard financial and material resources supplied to the institution; ensure the effective implementation of educational policies in the institution; and control and coordinating the work of teachers, non-teaching staff and students (GES/DG.10/VR/22/06). In addition, the head is expected to perform such practices as providing technical advice to the Board of Governors and implementing their decisions; submission of reports to education authorities and students' terminal reports to parents; submission of an annual report to the Director-General through the Board of Governors of the school with copies to the Regional and District Directors of Education (ibid). Attending to these practices is expected to result in a smooth school administration leading to a conducive school climate for quality teaching and learning and improving students' academic performance. However, do the school heads perform these practices? According to Esia-Donkoh (2014), primary school head teachers in Ghana are aware of the practices to perform, but some challenges impede their performance. This means that in the daily administration of schools, school heads in practice do not perform some practices due to the difficulties involved, thus confirming the findings of Fullan (1982; 2001), who wondered whether school leaders perform their practices.

The school head is at the centre of school improvement. However, performing school practices are not without job stress. Stress refers to a situation where one feels tense, nervous or troubled in their mind (Elo et al., 2003) or a person's psychological and physiological reactions to incidents perceived as threatening (Steers, 1981; Moorehead & Griffin, 2000). And job stress is a feeling of inadequate resources to match work pressure and related challenges in the work environment (Curbow et al., 2000; WHO, 2004). The school head, being the lead educator and working to ensure effective teaching and learning delivery, is faced with increasingly complex roles (Scott et al., 2021), which results in work-related stress or burnout (Berkovich & Eyal, 2015). Before, the practices include instructional responsibilities, administration and management of daily issues in school (Fink & Resnick, 2001). But today the practices (e.g. as outlined above) have increased, encompassing other community stakeholders (Wallace Foundation, 2013). The school heads thus face the challenge of managing the job stress and pressures the school community and other stakeholders place on them (Beausaert et al., 2016; Darmody & Smyth, 2016; Harris & Jones, 2021; Kafka, 2009; Maxwell & Riley, 2017).

Consequently, job stress negatively affects school heads and education delivery in general. According to Markow et al. (2013) and Mbibi et al. (2013), school

heads reported low job satisfaction and less interest in the position due to job stress. Also, Boyland (2011) and Darmody and Smyth (2016) predicted that schools might soon lack heads because teachers are unwilling to occupy such positions perhaps because of the stress involved. On the specific causes of job stress among school heads, Darmody and Smyth (2011; 2016) revealed that though the heads were happy with their job, they experienced job stress due to their dual role as administrators and teachers. In addition, they reported that age, gender, experience, type of school, and school location were sources of the job stress experienced by school heads, which also affected their level of job satisfaction (Darmody, 2016). Relatedly, the findings of Yambo et al. (2014), Wadesango et al. (2015), and Mbibi and Oluchi (2013) found workload and time pressure to be stressors among school heads, but they fail to indicate the actual practices of school heads that constitute the workload for which there is insufficient time to perform them resulting in job stress.

Further, unlike leaders of other occupations, the practices of school heads are not well defined (Huber, 2004, 2007), and there are inconclusive findings regarding the practices school heads perform and the resulting stress (Huber et al., 2013; Kukemelk & Mikk, 2015). Huber et al. (2013), using a sample of school leaders from Germany, Austria, and Switzerland, found that practices perceived as stressful were disliked and were performed less by school heads, while activities perceived as less stressful were liked and performed. The study further revealed that principals perceived practices related to organisational and administrative activities as stressful. In contrast, activities related to teaching and education (e.g. teaching classes and talking with students) were perceived as slightly stressful and well performed. Similarly, deploying the instrument used in Huber et al. (2013) but a different sample (Estonian principals), Kukemelk and Mikk (2015) also reported that practices related to organisation and administration were perceived as more stressful. However, in this case, the specific practice was related to conflict resolution and providing counselling services to students. This thesis adds to the literature by further exploring practices performed specifically by senior high school heads in Ghana (a developing country) with a centralised education system.

The ultimate goal of every education system and the result of a school leadership process is ensuring the delivery of quality education. According to UNESCO (2018), quality education encompasses issues like skills development, gender, provision of relevant school infrastructure, equipment, educational materials and resources and quality teaching force. Following the description of quality education, a quality school, by inference, is a school where students are equipped with the necessary skill set. The school has good infrastructure, learning and teaching materials and quality teachers with the required competence to teach. However, among stakeholders, there is no agreement on what a quality school is and the practices to perform to achieve it. While some emphasise aspects of the education system itself, like school buildings, leadership, teacher quality, educational materials, or students' outcomes, to describe a quality school (Dare, 2005); others perceive a quality school as one in which learners have good outcomes and develop the appropriate competency for quality of life (Ankomah et al., 2005). Also, little

is known about the specific practices that school heads in Ghana perform to ensure school quality. Prior studies that identified the practices of school heads (e.g. Huber et al., 2017; Ongaga, 2020; Bedi and Kukemelk, 2020; and Schulze and Steyn, 2007) identified practices performed but failed to identify the specific practices performed to ensure school quality.

This doctoral thesis highlights the practices of school leaders in a developing country with a centralised education system by determining the practices performed by school leaders in Ghana, the stressors and the factors that support them to perform practices to ensure school quality.

1.1. The focus of the research

As discussed above, there is evidence that school heads, in their quest to ensure school quality, perform various practices according to the school's context and cultural influences resulting in different levels of job stress among them. There is also evidence to suggest that school heads perform practices weighing the consequences of job stress on their health. Yet, little is known about how these dynamics play out in the context of Ghana's education system. Further, the meaning of a quality school and the strategies that could help achieve school quality seem to vary among the stakeholders. As a result, there is no consensus on what a quality school is and how to achieve it. This thesis seeks to determine the leadership practices of school heads in ensuring school quality and the resulting stress thereof. It also aims to investigate how school heads perceive a quality school, the specific practices performed to achieve it and related stress factors. In addition, it seeks to find the resources that support the school heads to help build resilience in performing practices to ensure school quality using interviews and questionnaire. The following research questions (RQ) guide the thesis:

1) Which practices do school heads perform, enjoy or perceive as stressful?
2) How do personal and school system factors affect the practices of school leaders, job stress and job satisfaction?
3) How well do school heads perform reform-related practices, how stressful is it to perform them, and which factors affect the performance of such reform practices?
4) How do school heads understand school quality, what practices do they perform, and what resources support or restrain them from improving school quality?

The research questions have been addressed in the following original publications:

Article I addressed research question 1 by identifying the practices school leaders perform and those that are enjoyable or stressful. The study highlighted the practices performed by school heads and discussed their implication for improving school leadership and management. The study also discovered how well stressful and enjoyable practices predicted performing practices.

Article II addressed research question 2 and focused on the impact of personal and school system variables on performing practices, job stress and job satisfaction among school leaders. The study sought to determine which personal variables (age, gender, position) and school system variables (the type of school, classification of school, and tracking type) influence the performance of practices by school heads, job stress and job satisfaction. In addition, the study examined the relationship between practices performed by school leaders and job stress and job satisfaction of school heads.

Article III focused on implementing reforms at the school level by school leaders to address research question 3. The study sought to determine whether or not school leaders implement reforms and, if they do, which factors influence performing reform-related tasks and the job stress resulting from such tasks.

Article IV addressed research question 4, which aimed to determine how school heads perceive school quality and determine the available resources at the personal level that supports or restrains the practices of school heads. The study further explores practices school heads perform to ensure school quality and those that are stressful to perform.

2. BACKGROUND

The following sections present an overview of the key concepts and literature around which this thesis is developed. It covers the conceptualisation of practice and agency, an overview of stress and some theories explaining job stress, literature related to quality schools and an overview of school leadership in Ghana.

2.1. Conceptual background

2.1.1. The concept of practices

The term practice used in this thesis takes its meaning from Pierre Bourdieu's theory of practice (Bourdieu, 1977; 1990). He conceptualised practice as resulting from a relationship between 'habitus', 'capital', and 'field' in an equation such as: [(Habitus) (capital)] + field = practice] (Bourdieu, 1984). In explaining the terms habitus, capital, field and practice, Apps et al.(2019) indicated that conceptually, 'habitus' refers to an internalised historical product that results from an individual's interaction with society (larger organisational structure) over time. It is 'structured' by the individual's past and current environment or circumstances. An example of habitus could be one's family upbringing and educational experiences (Apps et al., 2019). The term 'fields', according to Everett (2002), refers to "networks of social relations, structured systems of social position within which struggles or manoeuvres take place over resources, stakes and access" (p. 60). The 'field' is analogous to a game where everyone plays the same game, but the players do not necessarily have the same advantage (Bourdieu, 1984). 'Capital' is the means of exchange (currency) in the field (Grenfell, 2009), and it is described in three forms: economic, social and cultural capital (Bourdieu & Richardson, 1986; Apps et al., 2019). Economic capital encompasses the material wealth of the individual; cultural capital includes the individual's knowledge, skills, and aesthetic and cultural preferences, which is a product of habitus; and social capital is expressed in the form of the individual's social networks and contacts, affiliations, and the ability to benefit from these networks (Bourdieu, 1986; Claridge, 2015). The quantity and quality of one's capital significantly impact how one interacts in the field. Therefore, practice expressed as a function of habitus, field and capital refers to one's action and behaviour, which is a product of the relationship between the individual's disposition (habitus) and position in a field (capital) within the current state of play of the social arena (field) (Maton, 2012).

The application of the theory of practice enables the author of this thesis to conceptualise practice as 'what school heads do' in everyday school life as an agent in the school system. The past experiences of school leaders, training, cultural values (school and personal) and qualifications represent the habitus in the school system. The field is the school where all the school leaders are assumed to be equal in terms of status and rank. However, the type of school, location, and category

are sources of variations in the field. So, though all school leaders are of the same status, what one school leader does in a day school could be different from another depending on one's experience, qualifications and social links, for example. The field and capital impact the practices performed. The cultural values and preferences, skills, networks and affiliations of the individual school leaders significantly impact the school leader's vision for the school, their performance and how they cope with stressful situations in the school. The characteristics of individuals that perform various practices in a school system are primarily dependent on the cultural and structural conditions prevailing in the school as a community (Priestley et al., 2015), and the school leaders' capacity to understand the context of their school correctly and adapt their leadership practices to the needs of the school largely determines the school's success (Hallinger, 2011). The concept of practice is also built on the concept of agency.

2.1.2. The concept of agency

Education occurs within systems of structures that are cultural, social and organisational (Liddicoat et al., 2018), which determine or limit agents and their decisions (Jane & Barker, 2016). Thus, the actions of various actors in the system are invariably determined or influenced by the structural or cultural settings. Prior research has revealed how the stakeholders in the education delivery chain should behave to ensure improvement in the quality of education delivered. For example, Datnow (2012) indicated that actors in the education delivery process must be active agents to improve teaching and learning. According to Bandura (2001), being 'an agent is to intentionally make things happen by one's actions' (p.2). Agency, according to him, embodies the endowments, belief systems, self-regulatory capabilities and distributed structures and functions through which personal influence is exercised rather than residing as a discrete entity in a particular place (ibid). From the perspective of Priestley et al. (2015), agency should not be seen as residing in the individual as a property or capacity but as an emergent phenomenon of the ecological conditions through which it is enacted.

Further, in defining agency, Leijen et al. (2020), in a paper highlighting the ecological model of teacher agency and how to achieve it, indicated that agency "refers to individuals' active participation in and shaping of realities and is generally recognised as an important condition for learning and successful functioning in a workplace and other spheres of life" (p. 295). This revealed the need for conceptualising agency to understand the forces that determine or influence the cause of action or practices of school leaders in senior high schools in Ghana. Emirbayer and Mische (1998) outlined how to achieve agency. For them, agency is a temporally embedded process that encompasses three dimensions: iteration, projectivity and practical evaluation. Each element constitutes a component of agency as a whole but independently explains the different parts of agency to make conclusions about the larger concept. The iteration element of agency refers to the selective reactivation of past patterns of thought and action. In this way, actors

have routine activities in response to typical situations that help them sustain identities, interactions and institutions over time. The projective dimension encompasses the process of imagining possible future trajectories of action connected to the actors' hopes, fears, and desires for the future. The last dimension, the practical-evaluative element, entails the capacity of people to make practical and normative judgements amongst possible alternative actions in response to a context, a demand or a presently evolving situation (Emirbayer & Mische,1998).

Agency is a product of an individual's abilities and environmental conditions (Priestley et al., 2015). Therefore, in this thesis, the author recognises that school leaders as individuals operate in a system or within a structure that they could perceive as enablers, constraints, or resources (Leijen et al., 2020) in performing practices as school heads.

2.1.3. Overview of job stress

The concept of stress is historical (Allison, 1995; Fink, 2016) and not a new phenomenon or limited to one occupation (Cicei, 2012; Wells, 2013). Sánchez-Rinza and Peralta (2013) described stress as a state of tension within an organism that pushes it to activate all its defences to cope with a functional imbalance. Agreeing with Sánchez-Rinza and Peralta (2013), Proulx and Aldwin (2016) referred to it as a person-environment transaction where environmental demands outweigh the individuals' resources, resulting in psychological and physiological imbalance. The imbalance results in the expression of negative emotions with physical symptoms such as anger, anxiety, frustration (Kaufman, 2019; Kyriacou, 2001; Williams et al., 2009) or counterproductive behaviours (Charif, 2010; Eschleman et al., 2015) and low productivity (Mbibi et al., 2013). Differently put, Fink (2016) described stress as a non-specific response of the body to any demand and explained it in three ways: stress as a stimulus, stress as a response or reaction, and stress as a transaction between a person and their environment (Chen, 2017; Selye, 1976). Stress as a stimulus is any external force that acts on the body with the potential to interrupt the body's physiological or biological rhythms, resulting in an imbalance in the body, creating anxiety or exerting chronic pressure on the individual (Elo et al., 2003; Rice, 2011). According to Rutter (1981), this situation causes the individual to make changes or adaptations while producing physical or psychological reactions, which may be pleasant or unpleasant. The general adaptation syndrome explains that the reaction refers to the body's physiological response to a stressful situation, and it involves three stages: alarm, resistance, and exhaustion (Selye, 1976; Rice, 2011). The alarm reaction stage is the call–to–arms of all the body's systems when a stressor is recognised; the resistance stage is the marshalling of body forces to ward off the threat; and the exhaustion stage is when the body reaches the level of absorption. Two other models explain further the concept of stress regarding the work environment: the transactional model of stress (Lazarus & Folkman, 1984); and the Job Demands-Resource (JD-R) model (Demerouti et al., 2001; Schaufeli, 2017). The transactional model of

stress postulates that stress results from the transaction (appraisal) between an individual and the environment (Lazarus & Folkman, 1984). This description presents stress as a product of a transaction between individuals and their environment. Accordingly, the experience of stress results from ongoing transactions between the individual and the environment (Eloma et al., 2021; Lazarus & Folkman, 1984). During these transactions, the individual encounters situations or events that may or may not induce stress. Based on the encounter with these potentially stressful events, the individual appraises how to respond to the stressor(s). The outcome of these judgments determines whether the encounter is threatening or harmful (i.e. feeling stressed as a result) or not (i.e. not feeling stressed), and the individual physiologically reacts to the imbalance.

Regarding the JD-R model, the theory assumes that two factors influence employee well-being at the workplace: job demands and job resources (Clausen & Borg, 2011). According to Jones and Fletcher (1996), demands are "the degree to which the environment contains stimuli that peremptorily require attention and response" (p.34). Demands thus refer to various tasks or the things that are needed to be done at the workplace (ibid). And job demands refer to the physical, psychological, social, and organisational aspects of the job that require sustained cognitive or emotional effort, putting the individual under a certain level of strain (Schaufeli & Bakker, 2004). In the thesis, the practices that school leaders perform constitute the demands and job demands that come into play when performing the practices.

Job resources, on the other hand, refer to the "physical, psychological, social, or organisational aspects of the job that either/or reduce job demands and the associated physiological and psychological costs; are functional in achieving work goals; and stimulate personal growth, learning and development" (Schaufeli and Bakker, 2004, p. 296). The job resources are useful in getting the demands done.

The imbalance between job demands and resources determines whether the individual experiences job stress or not (Demerouti et al., 2001). High job demands exhaust employees' mental and physical resources, leading to the depletion of energy and health problems. On the other hand, job resources foster employee engagement and performance (serve as motivation). Strain, therefore, results when there are more job demands on the individual than the job resources can handle (Wells & Klocko, 2018). Both theories agree on the interaction between individual resources and job requirements. These interactions determine whether the encounter is threatening or harmful, i.e. feeling stressed (Lazarus & Folkman, 1984). In this thesis, job resources refer to the academic qualifications of the school heads, their work experience and the level of support received from the assistant school heads and teachers in performing the various practices to ensure school quality.

Transitioning to the work environment, the National Institute for Occupational Safety and Health (1999) refers to job stress as a harmful physical and emotional response that occurs when an individual's capabilities do not match the job requirements. The World Health Organization reaffirmed this definition of job stress and described it as a situation where a person perceives the work settings

such that their reaction involves a feeling of an inability to cope with the job (World Health Organization, 2004). In the school environment, school heads work with and in a community of students, teachers, parents and supervising bodies. The interaction with these 'environments' nevertheless generates situations that could be stressful or otherwise when appraised. The heads also have job resources (e.g. academic qualifications, work experience and logistics, for example) that support them in their various practices. The experience of stress is an individual phenomenon, and no two persons will experience it in the same measure. Therefore, these theories provided a suitable basis to situate the discussion of the results of this thesis.

2.2. Literature background

2.2.1. School heads' job stress and satisfaction

Some factors contribute to school heads' job stress and job satisfaction. According to Elomaa et al. (2021), the causes of stress among principals were workload, interpersonal conflict, internal pressure, and lack of financial and general resources. Yambo et al. (2014) examined the extent of job stress among Kenyan school heads and identified school and personal variables, increased workload, and family role conflict as stressors. Similarly, in a study of Zimbabwean school leaders, Wadesango et al. (2015) found that the behaviour of teachers in discharging their practices caused job stress. The teachers, the study reported, were coming to school late and sometimes came drunk, which was stressful to the school heads. In a summary of studies on sources of stress in education, Friedman (2002) identified the relations of school leaders' with co-workers, superiors and clients and work overload. Further, using a sample of school heads in Nigeria, Mbibi et al. (2013), using regression analysis, identified gender, qualifications, and experience as stressors.

Darmody and Smyth (2011; 2016) also studied occupational stress among primary school heads. The study revealed that though the leaders were happy with their job, they experienced job stress due to their dual roles as administrators and teachers. Also, age, gender, years of experience as school head, type of school, and location have varied effects on job stress (ibid). Dadaczynski and Paulus (2016) also stated that there was a significant difference in job stress of school heads concerning their age (younger school heads suffer more job stress than older ones) and type of school. A related study to assess job stress in Indiana school principals identified specific stressful issues such as increased paperwork, reports preparation, and time pressure as the sources of stress that negatively affected performance (Boyland, 2011). In Quebec, Canada, a study among principals and vice-principals of elementary and high schools using the Administrative Stress Index (Torelli & Gmelch, 1993) attributed the high level of stress among principals more to administrative constraints than role expectations, interpersonal relationships, intrapersonal conflict, and reform constraints (Poirel et al., 2012).

Further, in assessing the impact of demographic and school factors on job stress and satisfaction, Darmody and Smyth (2016) found that Ireland's school principals' age, experience, and level of administrative support received differed. There was a higher stress level among school heads over 40 years, and those just offered the job, contrary to what Dadaczynski and Paulus (2016) found.

Regarding studies that examined the daily activities of principals, Huber et al. (2013), in a survey of German, Austrian, and Swiss school principals, examined activities performed by principals on nine varied themes. The study revealed that principals perceived practices related to organisational and administrative activities as stressful and the most disliked. In contrast, activities related to teaching and education (like teaching classes and talking with students) were perceived as slightly stressful and performed (Huber et al., 2013). The conclusions were that school heads who perceive an activity as stressful do not want to perform them as much as activities perceived as not stressful or less stressful (Huber et al., 2017). Similarly, Kukemelk and Mikk (2015) reported conflict resolution and providing counselling services to students as stressful to principals.

School heads also experience job dissatisfaction in providing leadership for the quality of teaching and learning. According to Wei et al. (2014), the practices performed and the resulting stress was depressive and affected their job satisfaction level. Employees' positive or negative attitude toward work defines their job satisfaction (Greenberg, 2011). Wang et al. (2018) explained it as individuals' positive and negative feelings about their job, which correlates with job stress and performance.

There is a relationship between job satisfaction and performance. According to Judge et al. (2001), a positive relationship exists between job satisfaction and performance; however, in the findings of Sigrist (2010), job dissatisfaction also affected the performance of school heads and others under their supervision. Other studies identified factors that influenced job satisfaction among school heads. Darmody and Smyth (2016) and Sodoma and Else (2009), for example, reported personal variables like age, gender, and experience, while Chang et al. (2015) and Pollock et al. (2014) identified workload to have influenced job satisfaction.

2.2.2. School heads and practices related to implementing reforms

Reforming schools is not new, as many countries have introduced reforms in their respective education systems to improve their quality (Denecker, 2019; Li & Lappan, 2014). Effecting change at the school level is a task in the domain of school heads as participants in bringing about change in schools (Fullan & Stiegelbauer, 1991; Denecker, 2019). As far back as 1982, Michael Fullan's writing on implementing education reforms acknowledged the role of school heads and teachers in sustaining change in education. However, he wondered whether implementing the proposed reforms occurs in practice (Fullan, 1982; 2001). His scope was narrow, focusing only on developments in North America, and the

evidence supporting his arguments indicated the lack of interest in worldwide educational reform (Fullan, 2001). This raises the question of which factors could affect the performance of reform practices, especially in a centrally-controlled education system where school administration is top-down, for example.

Further, Esia-Donkoh (2014) investigated the practices of head teachers in primary public schools in Ghana. Based on a sample of head teachers in the central region of Ghana, he concluded that they recognise that it their responsibility to perform their practices; however, it comes with challenges. For example, lack of good administrative skills, lack of finance, conflict, and poor financial management skills impede the smooth implementation of educational policies (ibid). Also, a related study by Denecker (2019) of French-speaking Swiss public primary and secondary school principals in the cantons of Geneva and Vaud on implementing pedagogical and administrative reforms concluded that the principals considered the task stressful. Denecker (2019) found that one reason for this that the principals invariably raised was that the reforms did not originate from within the schools but rather were imposed on the principals. Because the principals do not feel part of the reform development process, they find it stressful to implement. The same situation applies to Ghana. The education management structure is top-down, so reforms and other administrative directives originate from the top (national level) to the bottom (school level) for the school heads to implement. Consequently, with the introduction of new reforms in the educational front in Ghana – the Free Senior High School policy (FSHS, 2017), the Education Strategic Plan (2018–2030), and the curriculum change – little is known about the performance of practices related to such reforms or some other administrative reforms by the school heads. This thesis, in part, examined the task of implementing reforms by school heads, its stressfulness and, specifically, the influence of age, gender, school type (day or boarding) and school system (single track or double track).

2.2.3. School heads' practices and school quality

The concept of quality in education seems perplexing, and it is difficult to have an agreed formal definition (Ankomah et al., 2005). According to UNICEF (2000), quality education is one with the following features: the learners are healthy and willing to participate in the learning process; the environment is safe and has adequate resources and facilities; the content reflects the curricula geared towards the acquisition of basic skills (literacy, numeracy and skills for life); the teachers are trained with appropriate pedagogical skills in a well-managed classroom resulting in outcomes that encompass knowledge, skills and attitudes towards the achievement of national goals for education and positive participation in society (UNICEF, 2000). Quality education thus consists of learning content that equips learners with essential skills to function independently, improve their lives, make informed choices, and engage in lifelong learning (Anderson, 2004). Also, Eze (2009) identified the features of quality education: quality learners, quality learning

environments, quality content, and quality outcomes. This implies that the various schools that provide education should reflect these features to ensure quality education is delivered. Thus, the quality of the school is inseparable from quality education delivery; and a quality school must provide all learners with comprehensive education and appropriate preparation for working life, life in society and private life (Ankomah et al., 2005).

However, the evaluation of the literature on the interpretation of the notion of quality in schools in Ghana reveals there is no single definition of quality in schools. In a review of government circulars, media reports, and workshop reports, Ankomah et al. (2005) concluded that the stakeholders' perceptions of what a quality school entails vary. Some stakeholders conceptualised quality as aspects of the education system, e.g. school buildings, leadership, teacher quality, educational resources, and student outcomes. However, others perceived quality to be where learners are provided with a comprehensive education and the appropriate competencies for quality life in society as the points of emphasis (Ankomah et al., 2005). This thesis sought to fill the gap by providing a working definition of school quality by asking school heads directly involved in the education delivery process.

As managers and stakeholders, school heads ensure their schools' quality, leading to positive outcomes (Aas & Vennebo, 2021; Fullan, 2014; Hallinger & Heck, 2010; Kukemelk & Ginter, 2016). According to Spillane and Sun (2020), school principals ensure school quality by establishing good relationships with key stakeholders (teachers, parents and students), promoting positive interpersonal relationships among these stakeholders, building school infrastructure, and above all, being accessible to all. As promoters of quality schools, Juharyanto et al. (2020) identified what school heads must do to achieve their schools' quality. These include having a clear vision for the school, being motivated to perform, and actively participating in extracurricular or social events of the school.

Nevertheless, improving schools has long placed a stressful burden on school heads (Fullan, 2014; Steward, 2014). Studies have revealed some factors that contribute to stress among school heads. For example, in a sample of secondary school heads, heads of department and Provincial Directors of Education in Kenya, Kendi (2012) found that indiscipline among students, inadequate resources (e.g. teachers, library, textbooks, and laboratories), and late disbursement of funds were some sources of stress to the heads. In a related study, Wadesango et al. (2015), studying head teachers in Zimbabwe and using quantitative and qualitative design approaches, found, among other factors, that supervision of teachers, teacher behaviours and increased administrative tasks were sources of stress. Also, among Finnish principals, Elomaa et al. (2021), focusing on elementary school principals, found that the leading causes of stress were workload, interpersonal conflict, internal pressure, and lack of resources (financial and general).

Regarding the support factors, Valentine and Prater (2011), in a study of school principals in grades 9 to 12, found that the educational level of the school head significantly impacts student achievement. Though these studies examined occupational stress related to school heads, they do not explicitly set out to

determine stress factors resulting from performing practices related to ensuring school quality. This thesis, in part, thus seeks to investigate the causes of secondary school heads' self-reported stress resulting from the activities they perform to achieve school quality. This is different from previous studies as it sampled only secondary school heads and used the interview as the data collection instrument. Consequently, it contributes to the existing literature by deepening our understanding of the factors influencing school heads' occupational well-being.

2.2.4. Overview of the themes of school leaders' practices

School leaders' behaviour and personal characteristics significantly impact the school's climate and general outlook (Esia-Donkoh, 2014). Like leaders in other enterprises, school leaders are expected to perform functions that propel the attainment of positive educational outcomes. Therefore, to empirically identify school leaders' practices and to situate these roles in literature for international comparison, the practices were examined in line with the nine thematic divisions of school leaders' practices suggested by Huber, Wolfgramm & Kilic, (2013); Kukemelk & Mikk, (2015); and Huber, Tulowitzki & Hameyer, 2017). These are briefly outlined below.

Development of teaching practice

First, promoting quality teaching and learning in schools largely depends on school leaders. School leaders are thus expected to influence the organisation of teaching and learning by allocating teachers, planning the academic calendar for school and reflecting on teaching methods with teachers, among others.

Education, guidance and counselling

Secondly, schools do not only provide the means to learn but also the platform for the total educational development and guidance of students. In this regard, school leaders are expected to support teachers to work within the curriculum and develop procedures that encourage appropriate behaviour from teachers and students. Further, school leaders and teachers support students in handling learning and social challenges that might affect their academic progress. In addition, they ensure that poor behaviour among teachers and students is appropriately corrected with set regulations. School leaders mediate conflict when there are occasional disputes between parents and teachers or even with students.

Human resource management and staff development

A school leader in performing practices regarding human resource management and staff development is expected to attract the best quality teaching and non–teaching staff to the school (Esia-Donkoh, 2014). The situation in Ghana is such

that school leaders only receive staff posted to the school. Nevertheless, they are expected to implement systems for assessing teachers' performance, draw plans for their continuous professional development and allocate staff duties according to the school's daily routines. Here, the quality of school leaders is expected to be beyond just knowledge and skills but a good understanding of management skills and competencies.

Organisation and administration

Next, school heads must ensure that the school is well organised and administered in an environment that promotes teaching and learning. They, therefore, oversee planning for staffing and timetable, providing data on school and budgeting and ensuring proper financial control systems. Besides budgeting-related roles, school leaders are expected to be accountable to stakeholders, sharing information to keep parents (for example) abreast with educational outcomes and developments in the school. In Ghana, for example, the provision and maintenance of physical facilities like school buildings, laboratories, libraries, school buses, and learning and teaching materials are provided mainly by the central government and non-governmental organisations. However, the lobbying and negotiation skills of the school leaders determine how soon these are provided.

Quality assurance

Given the high expectations stakeholders have of school leaders (Huber, 2016; Kukemelk & Ginter, 2016), especially in improving school quality and student outcomes, duties regarding quality assurance should stand out. In line with these, evaluating staff performance, giving feedback, and being accountable for the school's general performance, among others, are activities school leaders are expected to perform as they are judged and held responsible for students' results. 016ukemelk &

Quality development

School leaders in Ghana must communicate the school's vision and mission to students and staff. They are responsible for living the school's vision and initiating a strategic plan for the school and processes to improve school quality. In line with the school's vision, the school's culture, professional standards and general norms are established and communicated to all.

Representation

The practices of school leaders are not limited to duties performed within the school. Leaders represent the school in engagement with stakeholders within and outside the school. Media engagements (granting interviews on school achievements, for example) and other public engagement activities are organised to publicise the school's activities.

Cooperation with external partners

Though the central government is the primary source of school funding, there are other stakeholders with whom school leaders cooperate for smooth school management. School leaders are expected to maintain a good relationship with community leaders, religious organisations (in the case of mission schools), past students and other schools in the community. A good partnership with these bodies is a source of strength for school leaders as they enjoy their support in the administration.

Collaboration within the school

Last is activities relating to collaboration within the school. Providing school leadership is teamwork. It is thus imperative for school leaders to collaborate with assistant heads, heads of department and other staff to have all hands on deck in the school's administration. This, to a significant extent, fosters positive relationships to make the school successful.

2.3. Sociocultural background

2.3.1. Overview of school leadership in Ghana

To better understand the respondents' responses and explain the overall findings, background information about the education structure and leadership in Ghana is essential. The background covers the structure of education in Ghana, types of schools, school leadership and career paths in the Ghana Education Service, powers of the school heads and school culture.

Ghana is a constitutional democracy located on the west coast of Africa with a population of 30 million (Ghana Statistical Service, May 2020). The formal education at the pre-tertiary level comprises kindergarten education (2 years), primary education (6 years), Junior High school (3 years) and Secondary level education, [Senior High School, Technical and Vocational school education] (3 years). Progressing from Junior High school to Senior High school level is based on satisfactory performance in the national examinations (i.e. Basic Education Certificate Examination) at the end of the 9th grade. Students are exposed to various programme options at the senior high level, including General Arts, Science, Technical and Vocational programmes. Regarding the type of schools, there are two main categories of schools based on their ownership and funding structure: public and private schools. Public schools are also of two kinds: Community schools and Mission schools. The community schools are owned and funded by the central government.

In contrast, religious bodies own mission schools in partnership with the central government and are funded both by the religious bodies and the central government. The government, however, shoulders a higher proportion mainly in paying

staff salaries, providing learning teaching materials and developing infrastructure in some cases. The private schools, however, are owned by private individuals or institutions and receive no support from the central government. The schools are strictly day or day and boarding at the senior high level. Primary and junior high education operate as day schools, while secondary level education runs as day or boarding schools. In a day school, students return to their respective homes after school each day. In the boarding schools, students are housed on campus and provided with all their housing needs – food, bed, health services etc. Besides labelling schools as day and boarding, they are also classified into grades based on students' academic performance, available infrastructure, and enrolment. The categories are: A, B, C and D. Category 'A' schools record the best performance of students, have adequate infrastructure and have a high enrolment of students. In contrast, schools classified as category D have the least of all the key measures.

The responsibility of administering the schools rest with the school head (also referred to as headmaster / headmistress) and supported by the assistant school head or assistant school heads depending on the school size. In this thesis, school leaders refer to school heads and assistant school heads. Although the school heads are in charge of the day-to-day administration of schools, they have limited power, partly due to the hierarchical nature of leadership and bureaucratic traditions in the management of the education system. They do not hire or have the ability to dismiss staff, and they have limited control over financial resources. The school heads, however, recommend teachers to the appointing agency for posting to their school.

Nevertheless, they are responsible for enforcing national curriculum goals and the school's regulations and daily school life management, including teaching and learning. Furthermore, the school heads are accountable for representing the school at stakeholder meetings, interacting with the community and engaging with other institutions. Traditionally, and as occurs elsewhere, their roles include administrative tasks regarding the organisation of the school and ensuring a suitable school climate for teaching and learning. However, their responsibilities have increased over the years with new education reforms and strategies. For example, with the Free Senior High School policy (FSHS, 2017), the Education Strategic Plan (2018–2030), and the curriculum change, extra responsibilities have emerged, coupled with the challenges inherent in the policy implementation. For example, implementing the Free Senior High School policy increased enrolment by 31 per cent in 2018 (Tamanja & Pajibo, 2019), resulting in a lack of classrooms and dormitories. The double-track system was then introduced to salvage the situation. Double tracking allows the use of the schools' facilities all year round, thus reducing overcrowding in the school. Countries like Germany, the Netherlands, Costa Rica, Japan, Kenya and the United States of America have this system (Tamanja & Pajibo, 2019). The tracking system works such that students and staff are divided into tracks (shifts), and the tracks alternate school attendance. While one track is in school, the other is on vacation. However, in a single track, students and teachers are simultaneously in school or on vacation. Also, delays in the food supply, the release of money for the schools to feed

students, and the lack of recommended textbooks for quality teaching and learning pose a challenge to the school leaders and possible sources of job stress.

The education system is centralised with a top-down management structure and leadership by seniority. Although efforts are being made to decentralise the education management system (Education Act, 778 of 2008), the process has not been wholly successful. Thus, the status quo remains – all education decisions come from the national level. Provision of educational resources, for example, curriculum development, textbooks, learning teaching materials and other logistics, are procured nationally. The regional education directorates distribute the same to the districts and the schools. At the highest level of education, management is the responsibility of the Ministry of Education, which formulates national policies and is implemented by the Ghana Education Service (G.E.S). The G.E.S is established to oversee pre-tertiary level education – primary, junior high and senior high schools (Adam et al., 2016). The G.E.S is responsible for implementing approved national pre-tertiary educational policies and programmes for all children of school-going age (GES, 2021). The Service aims to provide an enabling environment in educational institutions and management positions to facilitate effective teaching and learning in schools to efficiently attain the goals of the Education Strategic Plan 2018–2030 (GES, 2021). Down the hierarchy are the Regional and District offices of the Ghana Education Service manned by Regional and District Directors who supervise schools in the regions and at district levels, respectively.

At the school level, the school heads' decision-making is in consultation with the assistants and other stakeholders higher in the hierarchy – the School Board, Regional Directorate of Education (in terms of second-cycle schools) and District Directorate of Education (in terms of first-cycle schools). However, it is essential to note that the school head has the power to make administrative and management decisions necessary to improve teaching and learning and the general tone of the school. Thus, the ability of the school head to display leadership quality, experience in education administration, and skills in student management becomes necessary and paramount. Until the introduction of the Free Senior High School policy in 2017, the Parents Teacher Association (PTA) operated within the schools, mainly raising funds to support educational activities and infrastructural development in the schools. However, the new policy restricted the funding part of the Association's activities, and their absence led to a funding gap in developing school infrastructure as the central government was unable to meet the demand of all the schools.

As indicated early on, the curriculum in schools is developed nationally with the specified teaching and learning outcomes at each level, and the schools do not have the power to vary the curriculum content to suit the local situation. In terms of curriculum implementation, the school heads, in most cases, neither engage in classroom teaching nor are they subject teachers. The school heads' obligation to the curriculum is allocating teachers for the various subjects, determining the number of classes (dependent on available space and teaching strength) and supervising that teaching and learning progress.

Leadership in the schools is a shared responsibility, although the ultimate responsibility lies with the school head. Generally, most senior high schools have two assistants, although schools with large enrolments could have three assistant school heads. Besides the assistant heads, there are positions like senior housemasters / housemistresses, form masters/mistresses, and heads of departments. These officeholders and other staff also contribute by providing services in career counselling, sports and extra-curricular activities.

Becoming a school leader in Ghana requires no tailored pre-service training like in America and some European countries where school heads receive prior training (Grogan & Andrews, 2002; Mourshed et al., 2010); it is by seniority and previous positions held. A fundamental prerequisite for being appointed as a school leader is being a professional teacher (i.e. receiving professional training from a College of Education or a recognised university), as well as teaching experience (i.e. the rank attained). In the G.E.S, the career path is from Senior Superintendent II (entry level for holders of a Diploma in Basic Education) or Principal Superintendent (entry level for holders of a Bachelor's Degree) to Deputy Director. Promotion to a higher rank is based on qualification, length of service, and successfully passing a promotion examination or interview (Kan-wetuu et al., 2020). Beyond the Deputy Director, the rank is Director and Director General. Individuals on the Director's rank are in charge of Regional or District Education directorates, while the Director General is a political appointee of the government responsible for the education service in general. The career path is as follows: Superintendent II, Superintendent I, Senior Superintendent II, Senior Superintendent I, Principal Superintendent, Assistant Director II, Assistant Director I, Deputy Director, Director and Director General (GES, 2021). Other requirements include an academic qualification (first-degree or second-degree), previous experience as an assistant school head (in the case of school head), head of department, senior housemaster/mistress, experience on some school level committees (e.g. examination, discipline, culture, sports, teacher welfare, etc.). The candidates are evaluated, those found suitable are shortlisted for interview, and the successful candidate is appointed to a specific school for a particular tenure. The school heads, upon appointment, go through a short induction service where they are oriented on school administration, management and financial management procedures like in Botswana (Pheko, 2008). The induction service orients the school heads to appreciate the dynamics of the office and supports them in better understanding the practices involved in school leadership.

This thesis differs from the previous studies in assessing the effect of job stress and job satisfaction on school heads. Referring to the demands on school heads as causing job stress and job dissatisfaction, Bauer and Brazer (2013), Chang et al. (2015), Pollock et al. (2014), and Yambo et al. (2014) failed to identify the specific practices for which there is insufficient time to perform and thus are responsible for the workload. Also, in measuring job stress, for example, the Administrative Stress Index (Torelli & Gmelch, 1993), which only attributes stress measures to administrative practices, was used. However, this research has sought to determine the actual practices that school heads perform and measure

the effect of job stress based on the practices performed using the time-based items derived from the Parker and DeCotiis (1983) job stress scale.

The job stress regarding the specific practices performed by secondary school principals is thus missing. Also, in the few studies that examined the practices of school heads, e.g. Huber et al. (2017) and Kukemelk and Mikk (2015), used school heads at all levels, while Darmody and Smyth (2016) used primary school principals. This study fills that gap in the literature by studying only secondary school principals. One other unique contribution of this thesis is the study area. The education system and school leadership processes and cultural dynamics or influences in performing practices among school heads are not the same as in other countries, e.g. countries captured in TALIS 2018 (OECD, 2020). Therefore, the education system where principals do not have the power to hire and sack staff remains unclear. The thesis thus adds to knowledge by assessing the factors that affect school heads' practices, job stress, and job satisfaction in performing practices using principals at a specific level and in Ghana.

3. RESEARCH METHODOLOGY

This section presents an overview of the research methodology applied in this thesis. First, the research designs of the four articles are introduced. After that, the sample, data collection, research instruments and the various data analysis strategies are explained separately for each of the four articles covered in the thesis. Lastly, the ethical considerations applied are outlined. A summarised overview of the research methods used to address the research questions is presented in Table 3.

3.1. Research design

The thesis comprises four scientific articles using quantitative and qualitative research methods. The first three articles used a quantitative survey design based on the same sample, while in *Article IV, a* qualitative research approach using a case study design was used (Creswell, 2007). The thesis, therefore, benefited from the strength of both quantitative and qualitative methods (Ivankova et al., 2006).

The empirical part was developed by adapting the scale pioneered by the Stephan Huber Research Group (Huber et al., 2013) for the World School Leadership Study (WSLS). *Article I* aimed to identify school leaders' practices and those they perceive as stressful to perform (RQ 1). *Article II* aimed to identify the factors that affect the performance of practices, job stress and job satisfaction of school leaders. The study used descriptive and regression analysis to provide evidence to answer the proposed research question (RQ 2). *Article III* focused on implementing reforms at the school level by school leaders. The study sought to determine whether school leaders implement reforms; and, if they do, which factors influence performing reform-related tasks and the job stress resulting from such practices. The study used descriptive and Ordinal Logistic Regression analysis to provide evidence to answer the proposed research question (RQ 3). *Article IV* explored the perception of school heads about school quality. The study also delved into finding which practices were stressful in improving school quality and the resources supporting performance. This study adopted a qualitative case study approach to answering the research question (RQ 4).

3.2. Sample

In this thesis, heads (headmasters / headmistresses) and assistant heads (assistant headmaster / assistant headmistress) in senior high schools constituted the sample. The reason for the choice of the sample is that little is known about the practices of secondary school heads in Ghana, given the present challenges in the education system. More importantly, in Ghana, completing secondary education is a prerequisite for tertiary level education; therefore, there is a higher demand on the

school heads to ensure good student outcomes and qualifications into tertiary education and be a good fit in society. Therefore, an appreciation of their practices and the stress factors involved is pivotal in the quest to ensure quality education and the well-being of school leaders in general. Also, research among educators would help to make knowledge available to improve the educational sector (Levin et al., 2011). As Levin (2011) describes it, knowledge mobilisation makes a stronger connection between research, policy and practice. In addition, it is known that fewer secondary school principals participate in research activities, thus accounting for the scant knowledge about their activities Wang et al. (2018).

As the participants would have to agree and then consent to complete the survey instruments, the purposive sampling technique was deemed appropriate for *Articles I, II,* and *III.* Therefore, participants willing and ready to complete the survey instruments took part in the study. One hundred and ninety-five heads and assistant heads drawn from 145 senior high schools in Ghana (in 2019) consented and participated in the study. Some characteristics of the sample are as follows: age (mean = 49.6 years, modal age = 49 years), work experience as a school leader (mean = 4.2 years, SD = 3.6 years, mode = 2 years, and gender (male = 79%, female = 21%). See Table 1 for an overview of the sample characteristics.

Table 1. Sample description and school information

Articles	No. of participants	Position	Gender	Age (years)	No. of years in education/ Head	Response Rate	School variables
I, II and III	School leaders (Headmasters/ Headmistresses and Assistants) n=195	Heads = 26.2% Assistant heads = 78.8%	Male = 79% Female = 21%	Mean = 49.6 Mode = 49	1–5 years = 77.9% 6–10 years = 16.4% 11–15 years = 4%	67%	Sch. Type: Boarding = 74.4% Day=26.6% Track type: Single track = 35.4% Double track(shift) = 64.6%

In *Article IV*, the participants were sampled from among heads in senior high schools in the Volta region of Ghana. Similarly, the purposive sampling technique was used to select the participants as they needed to indicate their consent and the readiness to complete the daily log record (recording of daily activities for ten days) to qualify to participate in the study. Fourteen heads (male = 11 and females = 3) completed the daily log record and were interviewed. See Table 2 for the participants' characteristics and school information for *Article IV*.

Table 2. Sample characteristics and school information

School heads (pseudonyms)	Sex	Location	Years as head (in current school)	No. of schools previously led	No. of years in education service	School enrolment
Mr Dominic	Male	Rural	3	1	19	1046
Mr Francis	Male	Urban	2	1	29	866
Mr Joseph	Male	Rural	4	0	25	585
Mr Richmond	Male	Urban	1	1	19	2067
Mr Gustav	Male	Urban	1	0	27	698
Mr Godwin	Male	Rural	3	1	24	1374
Ms Seyram	Female	Urban	3	2	25	2123
Mr Richard	Male	Urban	1	2	27	3838
Mr Johnson	Male	Rural	4	0	29	385
Ms Elsie	Female	Urban	2	1	28	1341
Ms Chelsea	Female	Rural	3	3	38	1049
Mr Nuku	Male	Rural	2	1	27	265
Mr Joyland	Male	Suburban	3	1	30	1127
Mr Nunana	Male	Suburban	1	1	26	1040

3.3. Instruments

For *Articles I* and *III*, the English version of the survey instrument (Kukemelk & Mikk, 2015), pioneered by the Stephan Huber Research Group (Huber et al., 2013), was adapted and used to collect data about school leaders' practices and the resulting stressful nature of the practices. First, the author reviewed the items to suit the study context. Then five educationists (experts) working with the Ghana Education Service further reviewed the items. Five items were modified, one was deleted, and two new items were added based on the experts' suggestions. The final scale was a 59-item survey measured on a 5-point Likert scale. The section measuring practices performed was measured as 1 = 'never performed' to 5 = 'always performed'. Then the section that measured the level of enjoying the practices was from 1 = 'not enjoyed at all' to 5 = 'enjoy very much' and 1 = 'causes no stress' to 5 = 'causes great stress' for the section on perceived stressfulness of the practices. In all the sections, scoring high means a high presence of the attribute, and a low score indicates a low presence of the attribute being measured (see appendix 1: the questionnaire). In *Article II*, statistically significant practices derived from *Article I* were used to measure performance of the practices and job stress and satisfaction measured by the adapted versions of instruments developed by Parker and DeCotiis (1983) and Wang et al. (2018), respectively. In *Article IV,* the author used an interview guide for the interview process (see appendix 2: the interview guide).

3.4. Data collection process

The data collection was carried out in two phases. The first phase covers the quantitative study part of the research (Studies I–III). The data was collected from heads and assistant heads (school leaders) across the then ten regions of Ghana in the summer of 2019. The author visited 205 public senior high schools out of the 602 public senior high schools at the time (2017/2018 EMIS data), and 291 school leaders from 145 senior high schools (107 boarding schools and 38 day schools) consented to participate in the study. One hundred and ninety-five (195) school leaders completed the questionnaire, representing a response rate of 67 per cent. The second data collection phase covered the qualitative part of the research in the autumn of 2020. This time, the researcher focused on only school heads (substantive headmasters/headmistresses) from one region of Ghana (the Volta Region). The Volta Regional Education Directorate contacted the heads, and those who responded were requested to complete a daily logbook for ten days as the first stage. In the daily logbook, the school heads recorded the activities relating to the school for ten days. Nineteen of the 40 school heads that responded completed the daily logbook, but only 14 were available for the interview, which lasted between 20 and 50 minutes.

3.5. Data analysis

The author employed the exploratory factor analysis (EFA) technique in *Article I* to identify the practices performed by school leaders. In addition, the mean and standard deviation values of the items on the respective scales were computed and ranked in descending order to determine the practices primarily performed, enjoyed or perceived as more stressful or less stressful. A principal axis factoring extraction method and Oblimin with Kaiser Normalization rotation on the job satisfaction scale (Wang et al., 2018) were also conducted in *Article II*. The indices revealed the Kaiser-Meyer-Olkin measure of sampling adequacy as 0.7. Bartlett's sphericity test showed that the correlation matrix was significantly different from the identity matrix and thus factorable (Hauben et al., 2017).

Regarding the job stress instrument (Parker & DeCotiis, 1983), Wells and Klocko (2015) asserted that school heads' inability to perform practices was due to stress resulting from time pressure. It was thus essential to run the CFA (Confirmatory Factor Analysis) to determine the item's loading on the time factor. Therefore, the results of CFA decided which items measured job stress resulting from time pressure fit the data. The resulting fit indices for the job stress scale met the benchmark values (Hu & Bentler, 1999, Steiger, 2007), while the job satisfaction scale (Wang et al., 2018) met the required approximate fit indices (Asparouhov & Muthén, 2018; Steiger, 2007). The primary statistical tool used in *Article II* was the multiple regression techniques. The multiple regression analysis technique was useful to determine how well demographic variables and school system factors affect the practices performed, job stress and job satisfaction of school leaders. The F-value significance and R-square were used to assess the model fit indices.

In *Article III*, 'implementing school reforms', the item of interest was part of the instrument on the practices of school heads (Kukemelk & Mikk, 2015; Huber, Wolfgramm & Kilic, 2013) under the subscale quality development on the practices performed and practices' perceived stressful scale. In both cases, scoring high on a scale means a high attribute presence. The author employed ordinal logistic regression (OLR) to predict the relationship between the response variables: levels of implementing school reform and perceived stressfulness in implementing school reforms, and the explanatory variables: tracking type, gender, age and school type. For analysis, the two scales were recoded into three ordinal levels as 'never performed' = 0, 'sometimes performed' = 1 and 'always performed' = 2 on the practices performed scale and 'causes no stress' = 0, 'causes somewhat stress' = 1 and 'causes great stress' = 2 on the practices' perceived stressful scale. High scores on the frequency of performed practices and perceived stress scales indicate high performance and high-stress levels, respectively. The explanatory variables were coded into dichotomous variables as follows: gender (males = 0, female = 1), tracking type (double track = 0, single track = 1) and school type (day = 0, boarding = 1). Descriptive statistics were used to compute the count variables.

All the instruments in this thesis met the benchmark of 0.70, according to Griethuijsen et al. (2014). Cronbach's alpha reliability measure assessed the reliability of the scales. Table 2 shows an overview of the instruments and data analysis techniques.

In *Article IV*, the author employed the content analysis approach. The qualitative content analysis approach was deemed appropriate because, according to Shava et al. (2021), "it leads to an understanding of social reality or phenomenon through interpretation of a reality of verbal or written recorded communication materials" (p. 557). More significantly, it overcomes some of the weaknesses of the quantitative approach because of the content's interpretation and the systematic process of classifying, coding and identifying themes or patterns (Hsieh & Shannon, 2005; Shava et al., 2021). Thus, in *Article IV*, the author used the semi-structured interview to collect the data from three headmistresses and eleven headmasters. The heads responded to questions about their perception of quality schools and the practices that ensure them. The questions sought school heads' understanding of a quality school, practices performed to enhance the quality of the school, and the challenges involved.

Further, they responded to how stressful or otherwise the practices performed were in developing the quality of their schools and the resources that support them in building resilience. See Appendix 2 for the interview guide. The author conducted the interviews, which lasted between 20 and 50 minutes. The author and two other researchers (supervisors) were involved in the analysis. The secondary supervisor transcribed the audio-taped interviews verbatim using Descript software (version 7.0.4). The author then played the recorded audio and read the transcript several times to confirm the transcription and then perform the coding. The coding was based on the patterns, commonalities, and links that emerged from participants' responses (Miles et al., 2018; Hsieh & Shannon, 2005; Shava et al., 2021). The transcribed text and the themes based on the research questions were shared with the supervisors to verify and confirm. The supervisors agreed with the coding, and the author continued to interpret the results based on the research question.

Table 3: An overview of the research focus, methodology, instruments and corresponding data analysis methods

Table 3. Overview of research focus, methodology, instruments and corresponding data analysis methods

Study	Research Question	Study Method Sampling techniques Sample size	Instruments	Data Analysis
Article I	Identifying preferred practices of school heads; stressful and enjoyed practices	Quantitative Study purposive sampling n=195	School heads' practices scale (Huber et al., 2013; Kukemelk & Mikk, 2015)	Factor analysis
Article II	Effect of personal and school system factors on practices, job stress and job satisfaction	Quantitative Study Purposive sampling n=195	• School leaders' practices (Bedi & Kukemelk, 2020) • Job stress scale (Parker & DeCotiis (1983) • Job satisfaction scale (Wang et al., 2018)	Regression analysis
Article III	Implementing reforms, the perceived stressfulness and factors that affect performance and the resulting job stress.	Quantitative Study purposive sampling n=195	School heads' practices scale (Huber et al., 2013; Kukemelk & Mikk, 2015)	Ordinal Logistic Regression analysis
Article IV	Perception of school quality, practices performed, stress factors, and support resources.	Qualitative Study purposive sampling n=14	Semi-structured interviews	Content analysis

3.6. Ethical considerations

The appropriate measures were taken to ensure that all ethical considerations were followed before and after data collection to guarantee participants' safety and protection.

Informed consent: The author first sought clearance from the Ghana Education Service to conduct the study as the main participants are staff of the Service. Then, during the data collection, the participants signed the informed consent form (provided on the second page of the questionnaire and the daily log) to indicate their willingness to participate in the study. The consent form provided a brief description of the purpose of the research, assured that participation is risk-free and voluntary and that their responses would be anonymised and treated confidentially.

Pseudonyms: The identity of the participants was preserved in the research. The participants' names were replaced with pseudonyms to protect their identity *(Article IV)*. Also, no third party was allowed into the office during the interview. These were intended to ensure the privacy and security of the participants (Saunders et al., 2017).

Data Storage: All transcript files were stored in a protected folder with a backup on an external device. The pseudonyms, too, were saved in a separate document. These were to ensure that the participants' data were kept secure and not disclosed to unauthorised persons.

4. FINDINGS

4.1. The practices performed, enjoyed or perceived as stressful

Practices

The first research question aimed at identifying the practices of school heads, the frequency of performance, how they enjoy and how stressful they perceive the practices. The results revealed 22 practices that loaded significantly on 3-factors. The author gave the following names to the practices that school heads prefer to perform: *teaching practices* (activities directly related to teaching), *administrative and management practices* (activities related to school administration and management), and *counselling and communal practice*s (activities related to welfare and teamwork). Table 4 lists the 22 frequently performed practices. The findings suggest that most of the practices that school heads prefer are administrative and management related.

Table 4. Preferred practices of school heads

		Factor Loadings		
No.	**Items**	**1**	**2**	**3**
	Teaching Roles			
1.	Performing subjects/class allocation with the cooperation of teachers	.782		
2.	Evaluating/assessing teachers' lesson notes	.713		
3.	Assessing teachers' performance	.682		
4.	Encouraging teachers to try out new teaching methods	.567		
	Administration and Management Roles			
5.	Giving feedback to parents and students' council about evaluation results		.704	
6.	Developing the school's vision (mission statement)		.703	
7.	Conducting / chairing staff meeting		.692	
8.	Conducting school evaluations		.678	
9.	Negotiating with representatives of educational authorities		.668	
10.	Representing the school's interest in meetings with superiors		.662	
11.	Building partnerships with other schools		.660	
12.	Organising parent information sessions		.596	
13.	Developing a plan for continuous professional development of staff		.594	
14.	Cooperating with Organisations (e.g. NGOs, companies and associations)		.581	
15.	Writing reports for educational authorities		.576	
16.	Moderating meetings to resolve teacher conflict		.564	
17.	Maintaining contact with old students' association		.535	
18.	Communicating the school's vision (mission statement) convincingly		.509	
	Counselling / Communal Roles			
19.	Initiating teamwork			.650
20.	Cooperating with the school management team			.597
21.	Enforcing the agreed code of conduct related to interaction in the school			.533
22.	Taking care of individual students if they have problems			.455

* RMSEA = .07, CFI = .90 TLI = .90 and SRMR = .06

Frequency of performance, enjoyment and perceived stressfulness of practices

Further, in ***Article I***, the practices' performance, enjoyment and perceived stressfulness were determined. To achieve these, the mean and standard deviation values of the items on the respective scales were computed and ranked in descending order to demonstrate which are primarily performed, enjoyed or perceived as stressful.

Regarding the frequency of the performed practices, the mean scores for all the activities range from 3.44–4.37, with a grand mean of 3.76. When the result matches with the Likert scale measures (1 = Never Performed, 2 = Seldom Performed, 3 = Sometimes Performed, 4 = Often Performed, and 5 = Always Performed), it implies that school heads do 'often perform' or 'always perform' the practices. The top five activities performed were as follows: 'initiating teamwork', 'enforcing agreed code of conduct related to interactions in the school', 'taking care of individual students if they have problems', 'cooperating with the school management team', and 'communicating the school's vision'. The least five performed activities were: 'developing a plan for continuous professional development of staff', 'negotiating with representatives of educational authorities', 'cooperating with organisations', 'building partnerships with other schools', and 'organising parent information sessions'.

The findings on how well school heads enjoy the practices revealed a mean score ranging from 3.50 to 4.30, with a grand mean of 3.79. Given the Likert scale measure (1 = Not enjoyed at all; 2 = Enjoyed a little; 3 = Somewhat enjoyed; 4 = Enjoyed; 5 = Enjoy very much), the finding implied that most of the school heads enjoy performing the practices. The top five practices enjoyed were as follows: 'cooperating with the school management team', 'initiating teamwork', 'taking care of individual students if they have problems', 'enforcing the agreed code of conduct related to interactions in the school' and 'encouraging teachers to try out new teaching methods'. On the other hand, the least five enjoyed practices were: 'performing subject/class allocation with the cooperation of teachers', 'building partnerships with other schools', 'cooperating with organisations', 'organising parent information sessions' and 'writing reports for authorities'. Lastly, on how stressful the practices are to perform, the mean score ranged from 2.20 to 3.11, with a grand mean of 2.68. Compared with the Likert scale measure (1= Causes no stress; 2 = Causes little stress; 3 = Causes somewhat stress; 4 = Causes stress; 5 = Causes great stress), it implies that the school heads perceived the practices as 'causing little stress' to 'causing somewhat stress'. The top five practices perceived as being stressful were as follows: 'enforcing the agreed code of conduct related to interactions in the school', 'taking care of individual students if they have any problems', 'moderating meetings to resolve teacher conflict', 'conducting school evaluations' and evaluating teachers' lesson notes. However, the least perceived stressful practices were: 'representing the school's interest in meetings with superiors', 'cooperating with the school management team', 'cooperating with organisations', 'conducting or chairing staff meetings', and 'building partnerships with other schools'.

Table 5. Rank of practices performed, enjoyed and perceived as stressful

	Practices performed	Mean (Scale 1–5)	SD	Practices perceived as stressful	Mean (Scale 1–5)	SD	Practices enjoyed	Mean (Scale 1–5)	SD
1.	Initiating teamwork	4.37	.79	Enforcing the agreed code of conduct related to interactions in the school	3.11	1.17	Cooperating with the school management team	4.30	.77
2.	Enforcing the agreed code of conduct related to interactions in the school	4.20	.92	Taking care of individual students if they have problems	3.09	1.16	Initiating teamwork	4.10	.93
3.	Taking care of individual students if they have problems	4.10	.99	Moderating meetings to resolve teacher conflict	3.05	1.12	Taking care of individual students if they have problems	4.01	.95
4.	Cooperating with the school management team	4.04	.95	Conducting school evaluations	2.97	1.12	Enforcing the agreed code of conduct related to interactions in the school	3.99	.96
5.	Communicating the school's vision (or mission statement) convincingly	3.87	1.03	Evaluating/assessing teachers' lesson notes	2.91	1.08	Encouraging teachers to try out new teaching methods	3.92	1.00
6.	Assessing teachers' performance	3.84	1.07	Assessing teachers' performance	2.84	1.14	Assessing teachers' performance	3.91	.99
7.	Giving feedback to parents and students' council about evaluation results	3.82	1.16	Writing reports for educational authorities	2.84	1.26	Conducting/chairing staff meetings	3.88	1.09
8.	Moderating meetings to resolve teacher conflict	3.80	.97	Organising parent information sessions (Parent-Teacher Association meeting)	2.77	1.13	Maintaining contact with old students' association	3.86	1.12
9.	Maintaining contact with old students' association	3.76	1.10	Performing subjects /class allocation with the cooperation of teachers	2.77	1.15	Communicating the school's vision (or mission statement) convincingly	3.82	1.00
10.	Encouraging teachers to try out new teaching methods	3.74	.97	Developing a plan for continuous professional development of staff	2.74	1.05	Moderating meetings to resolve teacher conflict	3.80	.96
11.	Performing subjects /class allocation with the cooperation of teachers	3.73	1.34	Negotiating with representatives of educational authorities	2.68	1.08	Representing the school's interests in meetings with superiors/educational authorities	3.76	1.13

	Practices performed	Mean (Scale 1–5)	SD	Practices perceived as stressful	Mean (Scale 1–5)	SD	Practices enjoyed	Mean (Scale 1–5)	SD
12.	Writing reports for educational authorities	3.72	1.12	Developing the school's vision (mission statement)	2.65	1.09	Negotiating with representatives of educational authorities	3.75	1.11
13.	Conducting/chairing staff meetings	3.70	1.16	Communicating the school's vision (or mission statement) convincingly	2.64	1.01	Giving feedback to parents and students' council about evaluation results	3.73	1.12
14.	Conducting school evaluations	3.66	1.10	Encouraging teachers to try out new teaching methods	2.62	1.12	Evaluating/assessing teachers' lesson notes	3.72	1.19
15.	Evaluating/assessing teachers' lesson notes.	3.58	1.29	Giving feedback to parents and students' council about evaluation results	2.61	1.09	Developing the school's vision (mission statement)	3.71	1.13
16.	Developing the school's vision (mission statement)	3.58	1.24	Maintaining contact with old students' association	2.57	1.14	Conducting school evaluations	3.68	1.11
17.	Representing the school's interests in meetings with superiors/educational authorities	3.57	1.23	Initiating teamwork	2.46	1.03	Developing a plan for continuous professional development of staff	3.65	1.04
18.	Developing a plan for continuous professional development of staff	3.55	1.12	Representing the school's interests in meetings with superiors/educational authorities	2.45	1.14	Performing subjects /class allocation with the cooperation of teachers	3.65	1.22
19.	Negotiating with representatives of educational authorities	3.55	1.19	Cooperating with the school management team	2.38	1.18	Building partnerships with other schools	3.63	1.23
20.	Cooperating with organisations (e.g. NGOs), companies and associations	3.52	1.22	Cooperating with organisations (e.g. NGOs), companies and associations	2.28	1.08	Cooperating with organisations (e.g. NGOs), companies and associations	3.52	1.22
21.	Building partnerships with other schools	3.51	1.23	Conducting/chairing staff meetings	2.27	1.05	Organising parent information sessions	3.51	1.19
22.	Organising parent information sessions	3.44	1.21	Building partnerships with other schools	2.20	1.04	Writing reports for educational authorities	3.50	1.25

*Grand mean of practices performed = 3.76; **Grand mean of practices stressful= 2.68 ***Grand mean of practices enjoyed = 3.79

A closer look at the findings showed that some practices that ranked high under practices performed were also perceived as stressful (ranked high under the perceived stress) and enjoyed. For example, 'enforcing the agreed code of conduct related to interactions in the school' and 'taking care of individual students if they have problems' were often performed and enjoyed, though they caused somewhat stress. In sum, the results showed that the school heads enjoy performing the practices 'often' even though they are 'somewhat' stressful. See Table 5.

4.2. Factors that affect school heads' practices, job stress and satisfaction

As discussed in relation to RQ 1, school leaders enjoy performing the practices, although they also perceive them as being stressful. With RQ 2 we focused on determining which factors affect or influence the performance of the school leaders' practices, job stress and job satisfaction. Specifically, the study investigated the impact of demographic (age, position, gender) and school (category of school and school type) factors on the practices, job stress and job satisfaction of the school leaders, with the results showing the most significant ones. First, position (i.e. substantive head or deputy head) significantly impacted performing practices. A change in status from deputy head to substantive head reduces the level of performing practices ($\beta = -0.25$, $p<0.001$). The implication here is that deputy heads perform practices more (often/always) than substantive heads. Secondly, regarding the factors that affect job stress, the findings indicated that this was impacted significantly by age, type of school and the school category. In terms of the age of the school leaders, the results showed that an increase in age reduces the level of job stress ($\beta = -0.23$, $p<0.01$). The meaning here is that younger school leaders experience higher stress levels than older leaders. With regards to the type of school, the results revealed a change from a day school to a boarding school increases the job stress level for school leaders ($\beta = 0.24$, $p<0.01$). The implication is that school leaders in boarding schools experience higher stress levels than in day schools. With respect to the category of school, the results showed that school leaders in the higher category experience higher stress levels than those in the lower category ($\beta = 0.16$, $p<0.05$). Lastly, regarding job satisfaction, the age and position of the school leaders were significant. The results showed that an increase in age reduced job satisfaction in performing the practices ($\beta = -0.15$, $p<0.05$), which implies that older school leaders are less satisfied with the job than the younger ones. And regarding the position, the findings showed that a change in status (i.e. from deputy head to substantive head) reduces the job satisfaction derived from performing practices ($\beta = -0.17$, $p<0.05$). This result implies deputy heads experience higher job satisfaction in performing their practices than the substantive heads.

Article II revealed some personal and school factors that affect job satisfaction, stress and performing practices. Position and age impacted job satisfaction, while age affected job stress. Also, the type of school influenced job stress and performing practices, while the school category impacted the school heads' job stress. Table 6 presents the results.

Table 6. The regression table showing the significant factors

	Practices β	**Job Stress β**	**Job Satisfaction β**
Position	–0.25***	–	–0.17*
Age	–	–0.23**	–0.15*
Type of School	–	0.24**	–
School Category	–	0.16*	–
R2	0.07	0.13	0.04
Adj.R2	0.06	0.11	0.03

***p<.001, ** p<.01, * p<.05. Note: Standardised beta values are presented

4.3. Performing reform-related practices and the stress factors involved

The Ministry of Education, Ghana, published the Education Strategic Plan 2018–2030 which outlined 12 reform areas to address weaknesses in the country's education sector. The reforms are expected to improve education in the country and to achieve the United Nations' Sustainable Development Goal 4 (SDG 4) to improve learning outcomes, especially at the pre-tertiary level. The reform aims to introduce a free fee for secondary-level education at the secondary level, expand physical infrastructure, improve quality, and promote skill development and equity (MoE, ESP 2018–2030). Research question three aims to assess the frequency with which school heads perform reform-related practices, the stress involved and the factors that affect both the performance and stress.

The study revealed how school heads perform practices relating to implementing reform and the stress level experienced in performing such practices. The findings showed that most school heads 'always' perform reform practices. However, a significant proportion reported that reform-related tasks were 'somewhat' stressful.

Next, RQ 3 sought to determine which demographic variables (e.g. age and gender) and school variable (school type and track type) affected implementing reforms and the perceived stress among the school leaders. The result regarding performing reform practices revealed age as a significant negative predictor (B = –.06, Wald = 5.26, P < .05), meaning that there is a predicted decrease of .06 in the log odds of school heads scoring higher on implementing reforms. It thus implies that scoring higher was more likely to decrease with an increase in age – younger school heads are more likely to perform reform implementation practices than older heads. See Table 7.

Table 7. Parameter estimates: implementing reform practices against demographic and school variables

		Estimate	Std. Error	Wald	df	Sig
Threshold	(Performing _Reform implementation_level = 1.00)	–6.42	1.44	20.04	1	.000
	(Performing _Reform implementation_level = 2.00)	–4.40	1.38	10.17	1	.001
Location	Tracking type	–.14	.36	.16	1	.691
	Gender	–.71	.39	3.37	1	.067
	Age	**–.06**	**.03**	**5.26**	**1**	**.002**
	School_type	–.19	.54	.13	1	.724

The author assessed the influence of gender, age, tracking type and school type on perceived job stress in implementing reforms. The findings showed school type as the significant predictor of perceived stress in implementing reforms (B = 1.06, Wald = 5.48, P < .05), which means the log odds of being in a higher stress category was 1.06 points higher for school heads in boarding schools than for school heads in day schools. The findings imply that school heads in boarding schools are more likely to suffer more job stress than their colleagues in day schools. See Table 8.

Table 8. Parameter estimates: Perceived stress level in implementing reforms against demographic and school factors

		Estimate	Std. Error	Wald	df	Sig
Threshold	(Level of stress in implementation Reform = 1.00)	–2.62	1.17	4.99	1	.03
	(Level of stress in implementation Reform = 2.00)	.25	1.16	.05	1	.83
Location	Tracking type	–.06	.30	.04	1	.85
	Gender	–.52	.35	2.12	1	.15
	Age	–.02	.02	.87	1	.35
	School_type	**1.06**	**.45**	**5.45**	**1**	**.02**

4.4. Meaning of a quality school, practices performed and factors that affect school heads in ensuring school quality

The last study addressed the research question four on determining how school heads perceive school quality and determine the available resources at the personal level that supports or restrains the practices of school heads. The author conducted an in-depth interview with heads (headmasters / headmistresses) as participants to find how they understand school quality, what practices they perform to achieve school quality, the stress involved, and the job resources that help them

to perform such practices. The results were categorised into four thematic areas based on the study's objectives – understanding what constitutes a quality school, practices performed to ensure school quality, stress factors involved in improving school quality, and job resources in improving school quality – which were used to address the specific research questions.

How heads understand a quality school

Here, the narrative about the heads' understanding of a quality school was categorised into student development, resource availability and school management and organisation. The meaning is that the heads perceive a quality school to mean student development, availability of resources and prudent school management and organisation. For instance, regarding student development, the heads explained a quality school to mean the academic performance of students, the usefulness of the students after school and the students' motivation. One of the heads mentioned that "when we say a school is of quality, we quickly consider students' academic performance. That is where your mind will go first before you think of anything else" (Mr. Gustav). Clearly, to this head (and others who expressed the same view), a quality school is one where students perform well academically. Also, a quality school was considered as a school where there are enough physical and human resources. For the physical resources, the availability and quantity of textbooks, learning and teaching materials and school infrastructure are key ingredients of a quality school. The heads also mentioned the qualification of teachers, their competence and positive attitude to work as human resources required in a school to describe it as a quality school. In sum, this was what one headmistress said: "my understanding of a quality school is a school with all the components needed for teaching and learning. [… A] school should have the needed infrastructure, the needed quality staff, the supporting areas of learning like a library, adequate dormitories, adequate classrooms, adequate furniture for it to be called a good school" (Ms. Chelsea). Lastly, the heads perceive quality schools as having good management and organisation. The narrative of the heads showed that a quality school implied a school with a small number of students and class size, high-quality examinations, a variety of extracurricular activities and a well-organised learning climate. Referring to a school's population, one headmaster said: "my best description of a quality school is one with the least population, a small population. Those are schools I am looking at as quality, not necessarily the structures available, but the small class size" (Mr. Richmond).

Based on the narrative, the heads have shown that one single factor could not epitomise what a quality school is. In essence, many factors come to play to make a school a quality school. In this study, based on the narrative of the heads, the author concluded that a quality school is a school with qualified staff, adequate teaching and learning materials, reasonable and proper infrastructure, students with high academic performance and good management and administration in a conducive climate. Table 9 presents the overview of school heads' understanding of quality school.

Table 9. Overview of heads' understanding of a quality school

Main theme	Results	Extract
Student development	Academic performance	*´When we say a school is of quality, we quickly consider students' academic performance. That is where your mind will go first before we think of anything else´. (Mr. Gustav)*
	Usefulness of the graduates	*'So for a school to be called a quality one, we also want to look … outside the school; in the sense that when you produce 200 students, we need to follow up and see how many of them have gained full employment? How useful are your students in the community and the nation and the world at large? That is what I see as quality'. (Mr. Joyland)* *'And the school graduates, do they get job placement? Do they proceed to a higher level of education? If yes, then you are providing quality education'.* (Mr. Gustav)
	Students' mo tivation	*'If you are talking of quality education, the level of ambition of the students is key. If the students do not see themselves out there in the future as rising, then they downplay quality. They will not aspire. The level of aspiration, for that matter, their ambition will be very low. So competition among students in class will already be very low, and that will affect quality education in terms of outcomes'. (Ms. Elsie)*
Resource availability	Access to textbooks	*'If every student gets a textbook, it means the student has access to quality education and the school is a quality school, but where the number of textbooks is less than the students' enrolment, we will have a problem'. (Ms. Elsie)*
	Learning and teaching mat erials	*'…teaching and learning materials should be available' (Ms. Seyram)* *'…teachers should have adequate teaching and learning materials'. (Mr. Nuku)*
	School infrastructure /school facilities	*'My understanding of a quality school is a school that has all the components needed for teaching and learning in place. [… A] school should have the needed infrastructure, the needed quality staff, the supporting areas of learning like a library, adequate dormitories, adequate classrooms, adequate furniture for it to be called a good school'.* (Ms. Chelsea)
	Qualified teachers	*'So quality in terms of facilities, quality in terms of teaching, teacher qualification, and quality in terms of teachers' commitment to preparing adequately to come and teach'. (Mr. Nuku)*
	Competence (content and pedagogical knowledge)	*'a quality school has competent teachers with content and pedagogical knowledge*'. (Mr. Francis)
	Positive attitude of teachers to teach	*'for a quality school, the teacher is regular at school, committed to the work and dedicated; when you have such staff then you don't have a problem'. (Mr. Francis)*

Table 9. Continuation

Main theme	Results	Extract
School management and organisation	Population and class size	*'My best description of a quality school is one with the least population, a small population. Those are schools I am looking at as quality, not necessarily the structures available, but the small class size'.* (Mr. Richmond)
	Quality of examinations/ assessment	*'[…] Examinations are conducted in a serene atmosphere, where students do not copy or attempt to smuggle foreign materials into the classroom. If these are not happening, you have a quality school'.* (Mr. Gustav)
	Extracurricular activities	*'Another thing is out-of-school activities, such as debates and games. All these together describe a school as a quality one'.* (Mr. Joyland)
	Organised learning environment	*'[…] the general learning atmosphere in the school counts. If the general learning atmosphere is bad, you cannot achieve high [academic performance]'.* (Mr. Joseph)

Practices performed to achieve school quality

Following the heads' narrative on their understanding of a quality school, the study further investigates the practices the heads perform to ensure the quality of their respective schools. From the results of Article IV (RQ 4), it was discovered that the practices that the heads perform to enhance school quality relate to staff development, students' development, allocation of teachers to classes and supervision, provision of resources and school management activities. For staff development, the results showed that the heads support teachers for promotion, organise in-service training for the teachers, and encourage peer sharing among the teachers. In terms of student development, the heads performed two main activities: organising extra classes or private studies and practical skills development lessons for the students to ensure good learning outcomes. The results presented in Table 10 show that in terms of teaching, the heads allocate teachers to classes, monitor their class attendance, and supervise their general conduct in the school, especially regarding teaching. The heads also ensure that resources are available for teachers and students. Therefore, they provide teaching and learning materials, request teachers to fill vacant places and 'fight' for infrastructure improvement or expansion in their schools. Then, in terms of school management and administration, the results showed that the heads ensure that the tenets of the school vision and mission are strictly implemented, school discipline is maintained, and extracurricular activities are organised for the students. See Table 10 for the results outlining the specific practices the heads perform to achieve school quality.

Table 10. Overview of practices performed to achieve school quality

Main theme	Results	Extract
Staff development	Support teachers for promotion/professional development	*'I helped them [teachers] to go for their promotions to higher levels to enhance their quality'. (Mr. Dominic)* *'The other thing I tried doing is to support my teachers to keep abreast with the system; and so daily, any policy that comes up, I make sure my teachers are informed'.* (Mr. Godwin)
	In-service training	*'… Then for the teachers, because of the lack of personnel in the system … we have in-service training. For example, next academic year a mathematics expert will be here [in the school] to take the maths department and the students for one week'.* (Mr. Richmond)
	Peer sharing	*'Those with experience meet at a department level – share ideas and their experiences with their colleagues. To make up for the defects or the pitfalls in the system'. (Mr. Richmond)*
Student development	Organising extra classes/private studies	*'We organise morning classes every Saturday...evening studies Mondays to Fridays, and I assign teachers on duty to supervise'.* (Mr. Johnson)
	Practical skills development	*'We also do a lot of practical work … there is block work after classes. Those offering Electricity go to a workshop (outside school) for training'. (Mr. Joseph)*
Allocation of teachers to classes and supervision	Teacher supervision	*'As Head, to have a quality school, apart from posting the teachers to the various departments and ensuring that they are working, you must go to the classrooms to supervise whatever they are doing. If you sit in the office thinking that your teachers are working hard in the classroom, you might be disappointed. Therefore, you need to go around checking. So from time to time, I leave my office to check how teaching and learning are going'. (Mr. Joyland)*
	Monitoring school and class attendance of teachers	*'We check teachers' attendance every day anytime school is in session. Attendance to school and classes. I, with the two assistant headmasters – academic and administration – do the monitoring'. (Mr. Johnson)*
Provision of resources	Teaching and learning materials	*'So as a headmaster, what I am supposed to do is to give my teachers the best resources. So I provide my teachers with the resources they need in terms of teaching-learning materials'. (Mr. Richard)*
	Requesting teachers to fill vacant positions	*'I continue to apply for new teachers' (Mr. Joseph)*
	Infrastructure development/following up on projects	*'The first one is infrastructure … unfortunately, there is not much we can do about infrastructure other than calling the stakeholders, chasing the contractor and sometimes going to Accra (Headquarters). So once you get at least the classroom infrastructure, then the problem is being solved'. (Mr. Joseph).*

Table 10. Continuation

Main theme	Results	Extract
School management activities	Developing vision and mission for the school	*'When I came, I did not get a clear vision of this school. So in consultation with the other stakeholders, I developed a vision and mission for the school'.* (Mr. Godwin)
	School discipline	*'For us, we are working on discipline because without discipline, results may not be so good'. (Mr. Joseph)*
	Organising competitions (e.g., quizzes, debates)	*'At least once every semester, we organise a quiz competition as well as Science and Math's Quiz and Debate among students'. (Mr. Johnson)*
	Performing sporting activities	*'we have a cadet group, which is the leading cadet group in the whole country. We also have school teams- football and other games like hockey'. (Mr. Nunana)*

Stressful practices in achieving school quality

Here, the practices stressful to the heads are categorised into four themes: supervision, lack of support, lack of resources and bureaucracy. For supervision, the results showed that supervising teaching and students are stressful. Also, maintaining discipline among the students is stressful. For example, one head indicated that because teachers live outside the school, monitoring students to maintain discipline after school hours is difficult (See Table 11). Regarding lack of support and lack of resources, the results showed that the non-cooperation of some teachers to support the heads to administer schools was a source of stress to the heads. Also, inadequate funding and the shortage of learning and teaching materials threaten the heads. The other practice that the heads find stressful is related to administration. The result showed that the bureaucracy involved in transferring teachers to the schools delays the process and is stressful to them. The last one is the organisation of meetings. Most often, the meeting invitations are at short notice, which is a source of worry to them as it affects their planned activities for that particular day. Table 11 presents an overview of the stressful practices performed to ensure school quality.

Table 11. Overview of stress factors in achieving school quality

Main theme	Result	Extract
Supervision	Supervising teaching and students	*'When you are dealing with supervision of teaching, it varies from one teacher to the other, depending on their reaction to your monitoring. But, generally, I can say that the supervision of teaching is stressful'.* (Mr. Dominic)
	Maintaining discipline among students	*'It is stressful as teachers do not have bungalows on campus to stay after school to monitor students to maintain discipline'. (Mr. Joseph)*

Table 11. Continuation

Main theme	Result	Extract
Lack of support	Non-cooperation of teachers	*'It is stressful when teachers are not cooperating'. (Mr. Joseph)*
Lack of resources	Inadequate funding	*'… Of course, they are stressful, stressful in the sense that some are financially intensive, and the finances are not there. So every day I think about what I must do to get some money. Thinking makes me exhausted'.* (Mr. Francis)
	Inadequate learning and teaching materials	*'… the resources, the materials are not there. So there is a lot of pressure on me to get the necessary materials the students need to work with. You end up stressing yourself and doing more than required'. (Mr. Nunana)*
Bureaucracy	Delay in transferring teachers	*'… At times you can get the teacher who is willing to come [to the school], but when it comes to the transfer issues … it is stressful'.* (Ms. Seyram)
	The improper organisation of meetings	*'… meetings; you need to be attending meetings. Some you are aware of; others you are just not aware of. You will just be called that you should come for a meeting. And that is not your plan for the day or the week, but you have to leave unprepared. It is stressful'. (Mr. Godwin)*

Job resources (support factors) in achieving school quality

Lastly, Article IV investigates how helpful personal resources are to the heads in performing tasks to ensure the quality of their schools. Job resources refer to elements that support employees in reducing job demands and enhancing efficiency (Schaufeli, 2017). In this context, job resources refer to the personal variables that support the heads to perform tasks related to improving school quality effectively and overcoming the job demands. The results, as presented in Table 12, showed that the heads identified their academic qualifications, experience and rank as the resources that underscore their performance of practices relating to school quality. Specifically, with regards to how relevant academic qualifications are, the results showed that they enable the heads to analyse issues before making decisions critically. Most heads hold second degrees in educational administration and related programmes. Again, regarding the quality of examinations, the results showed that due to the heads' academic backgrounds, they could validate test items for examination purposes in the schools. From the results, experience gained from previous roles supports heads in performing practices to ensure school quality. For example, experiences from earlier roles before becoming a substantive school head help the heads to supervise teachers, maintain discipline, create a positive school climate, and enhance teachers' skills (see Table 12).

Closely related to experience is their present rank in the Ghana Education Service. The maximum number of years working in the Education Service

recorded in the data was 38 years. This implied the heads had arisen through the career paths to attain a head position. The results showed that rising through the ranks helps the heads acquire the necessary experience supporting them to function as heads. According to one headmistress "…Then rankwise, since I have gone through the mill. From assistant superintendent through to Deputy Director. I know what it takes to teach. I know what it takes to head for the school's benefit". See Table 12, which provides an overview of job resources and how they impacted improving school quality.

Table 12. Overview of job resources in achieving school quality

Main theme	Results	Extract
Academic qualifications	Critical analysis of issues	*'It also helps in analysing issues. Someone who has written a thesis before will not just make a hasty statement; he would want to find out why, what, and how of the way out. So my academic qualifications have been beneficial because I learned a lot from psychology and educational administration'. (Mr. Richmond)*
	Validation of assessment items	*'I will, yes, for the academic issues because of my knowledge in psychology and education when, for example, exam questions are brought to my attention, I can assess the items and advise on their appropriateness – why the items are skewed towards one domain, why no practical topics and the like?'. (Mr. Richmond)*
Experience	Supervision of teachers	*'[…] as Assistant Director, supervision, in my previous role, I liaised with circuit supervisors to supervise teaching and learning in the schools. Checking regular attendance of heads, teachers, lateness, absenteeism, and lackadaisical attitudes. That experience is helping me here very well*'. (Mr. Gustav)
	Maintaining discipline	*'… from the housemistress level, you have direct contact with the students, so, you know, student behaviour, and then it guides you in terms of their welfare, their disciplinary issues, their academic issues'. (Ms. Seyram)*
	Creating a positive school climate	*'[…] I am also a counsellor, so I combine my counselling and leadership skills. As of today, I will say my staff is one of the unified staff among others. Both teaching and non-teaching staff are very united staff. Initially, when I came, the staff was not like this. There were divisions here and there, but with my leadership knowledge, we are now united. So it [experience] is helping'. (Mr. Johnson)*
	Building the capacity of teachers	*'Sometimes, when you are working with teachers who are housemasters, because I was once a housemaster, all the things, all the experiences I gathered usually I used them to educate them, brief them to support them to do their work very well. The same thing applies to our heads of department and the Guidance and Counselling Coordinator. So, in short, the backgrounds are helping'. (Mr. Nunana)*
Rank	Path to gaining experience	*'… Then rankwise, since I have gone through the mill. From assistant superintendent through to Deputy Director. I know what it takes to teach. I know what it takes to head for the benefit of the school'. (Ms. Chelsea).*

5. DISCUSSION

This doctoral thesis has sought to determine the practices school heads perform in providing leadership for their schools and ensuring school quality. The first aim was achieved by analysing the questionnaire designed to measure practices performed by the school leaders. Here, the practices performed, those enjoyed and reported as stressful, were highlighted. The second aim sought to identify the factors responsible for job stress and job satisfaction in everyday practice. As reform is part of the school improvement process and is performed by school leaders, the thesis' third focus was on implementing reform in schools. The aim was achieved by analysing the responses of the school leaders on how often they perform practices related to implementing reforms and how stressful the process is. The final aim was to identify the specific practices that school heads perform and the resources that support them to achieve school quality. The results indicate significant findings that contribute to knowledge in school leadership practices.

In the following section, the results of this thesis are discussed in connection with the available previous empirical findings. The section concludes with the thesis' limitations and recommendations for future studies and the study's practical and theoretical implications.

5.1. Actual practices school heads perform

The literature shows that education is delivered within structural systems that are influenced by cultural, social and organisational factors (Liddicoat et al., 2018) and, by extension, determine the action of actors or agents in the education delivery chain (Jane & Barker, 2016). Previous research on practices lumped all principals together (primary and secondary) and concluded that practices are not defined (Huber, 2004; 2007); and that heads tend to perform practices they feel less stressed about and dislike or perform less those that they perceive as stressful (Huber et al., 2017). Like elsewhere, school heads in Ghana's education system are expected to perform certain practices (Esia-Donkoh, 2014). However, whether these practices are performed or not is another issue. In this thesis, ***Article I*** (RQ 1) thus sought to determine actual practices that school leaders in senior high schools performed, those they enjoyed and those they reported to be stressful. The results showed that 22 core practices were being performed by the school leaders and grouped under the following themes: teaching roles, administrative and management roles and counselling and communal roles. With regards to the frequency of performing the practices and how enjoyable or stressful they are, the results showed that most school leaders 'often' or 'always' perform the practices; and enjoy performing them even though they 'cause a little stress' or are 'somewhat stressful' to perform. In contrast to Huber et al. (2013), who reported 58 practices under nine themes, school leaders in this study mostly perform these 22 practices grouped under three themes. However, each of the 22 practices are

associated with all the nine components earlier proposed by Huber et al. (2013). The findings implied that school leaders' day-to-day practices focused on teaching, administration, and counselling activities. Examples of the specific practices performed showed that the activities associated with counselling / communal roles were those most performed: initiating teamwork, enforcing the agreed code of conduct, taking care of individual students if they have problems, and cooperating with the school management team. Performing these practices shows that collaboration or working together as a team is an essential feature for teachers and is also required in management (Siiman et al., 2020). However, the finding contradicts Huber et al. (2013). They found that school leaders mostly perform activities closely connected with teaching and education (e.g. teaching in a class, talking with students, exchanging ideas with colleagues, and pursuing one's professional development), as they were perceived as only slightly stressful. It is observed that while the senior high school heads in Ghana focus more on counselling-related activities, the focus in other countries is teaching-related activities. This confirms that the organisational structure of the school system, cultural influences (Liddicoat et al., 2018) and the motivation of the agents in the education delivery process (Bandura, 2001; Datnow, 2012) influence the kind of practices performed (Bourdieu, 1977).

5.2. Factors affecting practices performed, job stress and job satisfaction

Article II (RQ 2) investigated the factors that affect school leaders' performance of practices, job stress and job satisfaction. Generally, school leadership is considered a stressful enterprise, albeit with a positive level of job satisfaction (Darmody, 2016; Steward, 2014; Wang et al., 2018). Previous studies have attempted to outline some of the factors contributing to job stress and satisfaction. It is known through the work of Elomaa et al. (2021), for example, that workload, interpersonal conflict, internal pressure, and lack of financial and general resources causes stress among Finnish school principals. In contrast, Darmody and Smyth (2011; 2016) found that job stress among principals in Ireland was due to the dual roles of the heads, age, gender, years of experience as school head, type of school, and the school's location. Similar results were also found by Dadaczynski and Paulus (2016), who reported that type of school and age affect the job stress of school principals.

Regarding job satisfaction, factors such as workload (Pollock et al., 2014) and personal variables, namely age, gender and work experience, have been shown to influence the job satisfaction of school leaders (Darmody & Smyth, 2016; Sodoma & Else, 2009). Unlike these previous studies, this thesis sampled senior high school leaders to determine which factors in the school system and personal variables affect the performance of practices, job stress and job satisfaction of the school leaders. The school system variables include the type of school, category

of school and the tracking type, while the personal variables are age, gender and position of the school leaders.

In this thesis, it was found that the majority of the school leaders are satisfied performing the practices. However, the position held (i.e. substantive school head or assistant school head) negatively affected the performance of practices. Also, the school leaders' age and position negatively affected their job satisfaction. With respect to job stress, the age of the school leader, the school type (boarding or day), and the school's classification had an impact. Findings concerning the effect of age on job stress implied that as school leaders advance in age, they suffer less job stress. This result supported the findings of Dadaczynski and Paulus (2016) that job stress was lower for older principals, but they differed from the findings of Darmody and Smyth (2016), who found the opposite. This result could, in part, be attributed to the hierarchical nature of school leadership and management and cultural influences in Ghana. Leadership in the schools is arranged through seniority; culturally, too, individuals in a higher position or who are older wield some delegated powers. School heads are senior to the assistant school heads, who are more active and thus perform most of the school's day-to-day activities.

Consequently, the assistant school heads may perform most of the practices, thereby reducing the performance of the substantive school head and contributing to their lower job stress. Also, progressing to a higher professional rank partly depends on the years in Education Service. For example, attaining the qualifying rank for headship requires a minimum of 16 to 24 years of experience, depending on the entry level. Thus, the accumulation of work experience over the years and its application to resolve day-to-day challenges could also account for the low stress level among the heads. Another reason could be the requirement for a recommendation from the school head to complete the promotion application process. Assistant school heads or other staff in a secondary school in Ghana need the head to sign the promotion application document. Therefore, to remain in the good books of the head, the lower rank staff endeavour to perform practices even though they might be stressful. These reasons explain the negative beta value of position on practices, where assistant heads perform practices more often than the substantive school heads. The findings revealed that school type and classification reported positive beta values with job stress. The result is in line with the findings of Dadaczynski and Paulus (2016), who reported a similar outcome. The implication here is that school leaders in boarding and higher-ranked schools suffer more job stress than school leaders in day and lower-ranked schools. Besides the higher enrolment in boarding and higher-ranked schools, school leaders had to deal with more administrative demands and student indiscipline, which invariably increased their job stress (Salifu & Agbenyega, 2012; Wang et al., 2018).

Lastly, the results in ***Article II*** (RQ 3) revealed the factors that influenced the job satisfaction of school leaders. Job satisfaction determines the positive approach of principals to performing their day-to-day activities (Wang et al. 2018). The findings show that an increase in age and a rise in position (from Assistant

Head to substantive Head) negatively impacts ('reduces') the job satisfaction of the school head. This result was contrary to Darmody and Smyth (2016), who found that age does not vary the level of job satisfaction among primary school principals. The significance of this result is that, among school leaders in Ghana, age negatively affects job satisfaction and that younger school leaders and/or assistant heads experience higher job stress, perform practices more often, and experience higher job satisfaction.

In comparison, older school leaders experience less job stress and perform practices less often but have lower job satisfaction. The dynamics of the daily routine in schools could explain this outcome. Given the organisational structure of the schools, the assistant heads are primarily involved in performing routine daily activities. They are the link between the school head and the student body. Therefore, they have more issues coming to their attention daily than the heads, thus accounting for their high frequency of performing practices and the increased job stress level. It is also possible that the cultural values shaping the performance of practices and the individuals' capacity or agency to perform (Priestley et al., 2015) could account for such an outcome.

5.3. Implementing reforms, the job stress factors

Following research questions 1 and 2, *RQ 3 (Article III)* sought to determine whether school heads perform practices related to implementing reforms and explored the factors that influence performing such practices and the perceived stress involved in the process. The result showed that most heads 'always' performed reform-related practices. Secondly, on the perceived job stress involved in implementing reforms, the findings showed that the majority perceived implementing reforms as 'causing somewhat stress' and 'causing great stress'. These results seem to agree with Esia-Donkoh (2014) that primary school heads perform practices directed at the general management of schools but with challenges. Further, the perceived stressfulness of implementing reforms confirmed prior findings of Darmody and Smyth (2016), Juma and Simatwa (2016) and Denecker (2019); for example, that school heads experienced moderate to high levels of stress in performing their practices.

The findings further showed that the age of the school leader had a statistically significant impact on performing reform-related practices. Specifically, the findings revealed that age was negative, implying that younger heads were more likely to perform reform practices than older heads. The findings show that school leaders in double-track schools were more likely to implement reforms than in single-track schools, while heads in day school reportedly performed reform practices more than in boarding schools. The tracking system (shift system) is new at the senior high level in Ghana. The policy was introduced due to increased enrolment and inadequate classroom space resulting from the Free Senior High school policy (FSHS, 2017). Therefore, the finding that school heads in double-track schools implement reforms more than their counterparts in single-track

schools reflects the reality. The school leaders were able to implement the reforms because that might have been the best solution at the time to manage the increase in student enrolment.

Regarding the stress involved in implementing reforms, the findings showed that only school type was statistically significant among the variables examined, agreeing with Borg and Riding (1991), who indicated that school type and size influenced stress levels. Therefore, the finding that heads in boarding schools experienced more stress when implementing reforms than those in day schools had support in the literature. The result was not surprising because, generally, boarding schools tend to have a higher enrolment of students, with more teaching and non-teaching staff, all of which are under the leadership of the school head. Consequently, implementing reforms in this context would not be the same as in a day school where the numbers are comparatively smaller. By extension, this argument (i.e. higher job stress among heads in boarding schools) explains why school leaders in day schools perform reform-related practices more than school leaders in boarding schools.

Article III (RQ 3) revealed that successful implementation of reforms at the school level depends on the principals' age. Another finding was that the type of school contributes to the job stress experienced in implementing the reform. Given that young heads were more likely to implement reforms and that the type of school influences the implementation due to job stress, school boards and other stakeholders in appointing school heads should consider this finding to decide on a school type – school head fit. When a perfect match is selected, such a school head would probably be more resilient in handling job stress in a boarding school or large schools (for example), thereby overcoming the job stress involved in implementing reforms.

5.4. Ensuring school quality, the practices, stressors and resources

The satisfactory improvement in school quality to achieve the most favourable outcomes for students depends on school heads' performance and their relationship with other stakeholders. According to Hallinger and Heck (2010), school leaders build students' capacity and general school improvement. In addition, Juharyanto et al. (2020) indicated that the role of school heads is crucial in ensuring school quality. However, the literature suggests that there are varying opinions on what quality is and, for that matter, what a quality school is (Ankomah et al., 2005). Therefore, the focus of RQ 4 *(Article IV) was on* understanding what a quality school is (quality education) and determining the practices that school heads perform to ensure the quality of their schools and the available resources that support or restrain school heads' practices.

First, the results show how the school heads perceive quality schools. A quality school was perceived to mean total student development, availability of resources,

and prudent school management and organisation. Student development entails students' academic performance and usefulness to themselves and society. While the resources are about the adequacy of the teaching and learning materials for use in the school and the teachers' quality, the management and organisation part refers to the general leadership process in the school and the school climate. Comparatively, this description of a quality school encapsulates the definition of UNICEF (2000) and the features of a quality school outlined by Eze (2009) as including quality learners, quality learning environments, quality content, and quality outcomes. Given this understanding of a quality school, how do the school heads achieve it? Here, the focus was on the practices that the school heads perform to achieve school quality or improve on it. The findings showed that the school heads perform practices related to the professional development of the teachers and the academic development of students. Other practices performed were supervision of teachers, providing learning and teaching resources, creating the right atmosphere for learning and teaching to thrive, and organising extracurricular activities in the school. This finding coincided with that obtained by Spillane and Sun (2020) and Juharyanto et al. (2020), for example, who identified activities such as participating in extracurricular events, promoting positive interpersonal relationships with stakeholders and ensuring infrastructural development of the school, among others. In addition, the school heads indicated that they encourage peer sharing, where experienced teachers share ideas with colleagues who might be deficient in one methodological area.

Further, the findings revealed the stressful practices involved in improving school quality. Specifically, the school heads mentioned supervision, teachers' non-cooperation in supervising student activities after regular study hours, lack of money and textbooks, and challenges with bureaucracy. The findings on lack of resources (e.g. money) confirmed the result of Elomaa et al. (2021) that inadequate financing is a source of stress for school heads. In addition, challenges with supervision, teachers' attitudes and bureaucracy reported in the current study were similar to the results of Mahfouz et al. (2020) and Wadesango et al. (2015). Finally, the results revealed that the academic qualifications, experience, and professional rank of school heads supported coping with the stress involved in developing school quality. The findings were similar to those of Valentine and Prater (2011), who maintained that level of education of school heads is essential as it significantly affects the practices performed. In Ghana, school heads who hold master's degrees in education-related curricula apply such knowledge and the experience gained from previous positions as they progress along the career path to their current practices. The implication is that the academic qualifications and experience acquired over the years serves to increase resilience when handling stressful practices (Lazaridou & Beka, 2015; Netuveli et al. 2008).

5.5. Conclusions

Improving the quality of education is at the heart of school leadership. As school heads perform various practices to ensure the academic success and general development of students and the professional development of teachers, stress resulting from age, school type, and school classification impacts their performance and satisfaction (Bedi et al., 2021; Darmody 2016; Elomaa et al., 2021). This doctoral thesis has covered four scientific articles to address four research questions. In ***Article I*** (RQ 1), the practices of school heads, grouped under three themes – teaching roles, administrative and management roles, and counselling or communal roles – were outlined. In ***Article II*** (RQ 2), the findings highlighted the factors that influence job stress, job satisfaction, and performance of practices by the school heads. It was found that age, type of school (boarding or day), and the school's grading influenced their job stress; position (i.e. head or assistant head) and age influenced their job satisfaction; and position affected the practices they performed. The results from ***Article III*** (RQ 3), highlighted how school heads implement school reforms and the resulting stress. It was revealed that, although implementing reforms is stressful, the school heads nevertheless perform such practices. The results further showed that younger heads are more likely to perform reform practices than older heads, while leaders in boarding schools are more likely to suffer stress in implementing reforms than those in day schools. Lastly, ***Article IV*** (RQ 4), highlighted the practices related to school quality and the stress and support factors. Further, the thesis made it possible to single out the stress factors and practices involved in school management among secondary school heads. It also identified practices for ensuring a quality school and supporting resources in reducing job stress.

5.6. Limitations and further research

This thesis is not without its limitations. The sample was selected using the convenient and purposeful sampling approach**,** which enabled the author to find school leaders who were qualified and willing to be participants. There were participants from every region of the country, though a more proportional representation was the target. However, this does not affect the results as the sample was statistically appropriate and representative of the population. As such, the author is unable to generalise the findings. Overall, the findings are valid and applicable in all educational contexts and not only in countries that share similar educational cultures with Ghana. Future research in the field should consider probability sampling as the way forward. Finally, owing to the long distance the author had to travel to the various schools and the fact that the data collection period coincided with the schools' calendar for examinations and attending conferences, some participants were not reached, and others were unavailable to participate. Despite this, the sample size was more than enough to make a meaningful statistical analysis. A more extended period dedicated to data collection is recommended for future research.

5.7. Implications

The thesis offers the following practical implications that are valuable suggestions to principals and education administrators in countries with a similar education system and for future research:

i. The revelation of core practices performed by school heads ***(Article I)*** was significant. The findings can be the starting point for developing a comprehensive training manual for in-service training for serving school heads and induction training for new school heads. The manual would prepare the school heads to handle adequately the practical issues they might encounter in the day-to-day administration of the schools.

ii. The essence of school leadership and management is to ensure quality education outcomes. Therefore, the findings that assistant heads perform practices more often and experience higher job satisfaction (***Article II***) suggest that their presence would significantly impact the improvement of a school's quality – especially in Estonia, where the teaching workforce is ageing (OECD, 2019). Therefore, in a school leadership mix, including younger personnel would enhance the school's general administration geared towards achieving a desired learning outcome.

iii. School boards or bodies that appoint school heads should consider the applicants' job experience and level of education in their decision-making to ensure a good fit.

iv. Significantly, ***Article IV*** revealed that school heads had a broad understanding of what a quality school is. The awareness that a quality school is defined broadly in terms of high academic achievement, adequate infrastructure, learning and teaching materials, qualified teachers and disciplined students indicates that school leaders pursue quality school improvement irrespective of the available components. The finding should encourage school leaders to be innovative and creative in their leadership activities to ensure the availability of a good mix of resources to improve the quality of their schools. There should also be an equitable distribution of resources to all schools. School facilities, teacher quality, and funding should be distributed proportionally to all schools to ensure quality in all schools and for a healthy school environment for all to operate.

v. Overall, the thesis has made a significant contribution to the literature on school leadership. The age dynamics, the practices performed by the school leaders, and the effect of school category on job stress are new additions to the literature relating to education in Ghana.

SUMMARY IN ESTONIAN

Koolijuhtide tegevus kooli kvaliteedi tagamisel ja sellest tulenevad stressitegurid: Ghana koolijuhtide uuring

Sissejuhatus

Väitekirjas uuritakse Ghana koolijuhtide täidetavaid tööülesandeid, nendega seotud tööstressi ja -rahulolu ning tegureid, mis mõjutavad koolijuhtide tööstressi ja töö tulemuslikkust.

Koolijuhtimist käsitletakse kui üht olulist tegurit kooliarenduses üle maailma ja seega kvaliteetse hariduse tagajat (Fullan, 2007; OECD, 2020). Direktor täidab koolis keskset rolli õppeasutuse juhtimise ja administreerimise kujundajana ning teda toetavad selles tegevuses õppejuhid (koos vaadelduna kui koolijuhid). Koolijuhti peetakse haridussüsteemi tugisambaks ja oluliseks mõjutajaks kooli efektiivsuse tagamisel (Esia-Donkoh, 2014). Ootused koolijuhtidele on väljunud traditsioonilise administreerimise raamidest ning sisaldavad nüüd meeskonna juhtimist, õpetamist, võrgustikutööd ning suhtlust huvigruppidega (OECD, 2020).

Erinevalt teiste valdkondade juhtidest on koolijuhtide tööülesanded puudulikult defineeritud (Huber, 2004, 2007) ja nende tööd peetakse stressirohkeks (Darmody & Smyth, 2016; Elomaa *et al.*, 2021; Juma & Simatwa, 2016). Elo *et al.* (2003) järgi on stress olukord, kus tuntakse end pinges, närvis või mures olevat, samas kui tööstress väljendab inimese tunnet, et tal ei ole piisavalt ressursse, vastamaks töösurvele ja sellega seotud väljakutsetele töökeskkonnas (Curbow *et al.*, 2000; WHO, 2004). Koolijuhtidega tehtud uuringud on keskendunud rohkem juhtimise kvaliteedile, selle tulemuslikkuse ja tõhususe parandamisele (Huber, 2016; Wahlstrom *et al.*, 2010) ning koolijuhtide töökoormuse vähendamisele (Bedi & Kukemelk, 2018). Sellega seonduvad Yambo *et al.* (2014), Wadesango *et al.* (2015) ning Mbibi ja Oluchi (2013) järeldused, mille kohaselt on koolijuhtide töökoormus ja ajasurve olulised stressiallikad. Siiski ei osuta nad koolijuhtide tööülesannetele, mis otseselt suurendavad töökoormust ja mille jaoks on aega ebapiisavalt ning mis võiks seega põhjustada tööstressi.

Huber *et al.* (2016) tuvastasid Saksamaa, Austria ja Šveitsi koolijuhtide uuringus, et stressirohkeks peetavad tööülesanded on koolijuhtide seas kõige ebameeldivamad ja neid täidetakse harvem. Seevastu tegevusi, mida juhid pidasid vähem stressirohkeks, hinnati meeldivaks ja neid sooritati sageli. Tulemused näitavad, et koolijuhid kaaluvad tööülesannete täitmisel stressi mõju enda tervisele. Senini on aga vähe teada, kuidas eri tegurite dünaamika toimib Ghana haridussüsteemis.

Iga haridussüsteemi esmane eesmärk ja seda ellu viiva koolijuhtimise ülesanne on tagada hea hariduse andmine õppeasutustes. Samas puudub huvigruppidel ühtne arusaam heast haridusest (Ankomah *et al.*, 2005; Dare, 2005). Seetõttu täidavad koolijuhid kooli kvaliteedi parandamisel eri rolle (Huber, 2016).

Esitatud taustast tulenevalt uuritakse siinses väitekirjas koolijuhtide tööalaseid toiminguid (tööülesandeid), tööstressi ja tööga rahulolu tsentraliseeritud haridussüsteemis, kui nad lähtuvad kooliarenduses koolijuhtimisest. Selleks sõnastati järgmised uurimisküsimused.

1. Milliseid tööalaseid toiminguid koolijuhid igapäevaselt sooritavad, milliseid neist sooritatakse hea meelega ning millised põhjustavad stressi?
2. Kuidas koolijuhtide isiklikud eripärad ja koolisüsteemi iseärasused mõjutavad nende tööalaseid toiminguid, tööstressi ning tööga rahulolu?
3. Kui hästi koolijuhid täidavad kooliuuendusele suunatud ülesandeid, kui stressirohked on need ülesanded ja millised faktorid mõjutavad nende tööülesannete täitmist?
4. Kuidas koolijuhid mõistavad kooli kvaliteeti, milliseid tööalaseid toiminguid nad sooritavad ja millised ressursid soodustavad või takistavad kooliuuenduse läbiviimist?

Metoodika ja analüüs

Doktoritöö eesmärk on analüüsida koolijuhtide toimingute profiili, stressitegureid, tööga rahulolu ja ressursse, mis toetavad koolijuhte kooli kvaliteedi parandamisel. Eesmärgi saavutamiseks viidi vastavalt uurimisküsimustele läbi neli uuringut, milles osalesid läbilõikestrateegia alusel välja valitud koolijuhid Ghana keskkoolidest. Uuringutes kasutati nii kvantitatiivseid kui ka kvalitatiivseid meetodeid.

Valimi moodustasid Ghana keskkooli juhid (nii direktorid kui ka õppejuhid). Kokku osales esimese, teise ja kolmanda artikli aluseks olevates uuringutes 195 uuritavat (79% mehed ja 21% naised). Neljanda uuringu (kvalitatiivse uuringu) jaoks valiti Ghana Volta piirkonnast välja 14 koolijuhti (11 meest ja 3 naist) ning intervjueeriti neid.

Esimeses uuringus osalejad vastasid Huberi *et al.* (2013) ning Kukemelgi ja Miku (2015) kohandatud koolijuhtide tööülesannete küsimustikule. Teises uuringus keskenduti koolijuhtide tööülesannetele (Bedi & Kukemelk, 2020), tööülesannete põhjustatud tööstressile (Parker & DeCotiis, 1983) ning tööga rahulolule (Wang *et al.*, 2018). Esimese, teise ja kolmanda uuringu andmed koguti küsimustikega. Neljandas uuringus kasutati andmete kogumise vahendina intervjuud. Esimese, teise ja kolmanda uuringuga kogutud andmeid analüüsiti faktoranalüüsi, kinnitava faktoranalüüsi, kirjeldava statistika, regressioon- ja korrelatsioonanalüüsi abil. Neljandas uuringus kasutati kvalitatiivset sisuanalüüsi.

Tulemused ja arutelu

Esimeses uuringus käsitleti koolijuhtide tööalaseid toiminguid, mida on neil vaja sageli täita; uuriti, millised toimingud on meeldivad ja millised põhjustavad stressi ning kuidas nende sooritamine mõjutab koolijuhi stressitaset. Uuringu tulemusena eristusid 22 tööalast tegevust, mis liigitusid kolme teema alla:

õpetamine, haldus ja juhtimine ning nõustamine ja kommunikatsioon. See erineb oluliselt Huberi *et al.* (2013) tulemustest, kus esildus 58 tegevust, mis rühmitati üheksa teema alla. Seega näitas uuring, et koolijuhtide igapäevased kohustused Ghanas on ennekõike seotud õpetamise, juhtimise ja nõustamisega. Lisaks selgus esimesest uuringust, et kuigi mitmed tööülesanded põhjustasid koolijuhtidele stressi, olid nad siiski rahul nende täitmisega. Ka see erineb Huberi *et al.* (2017) uuringust, mis näitas, et direktorid võivad mõnest stressirohkest ülesandest loobuda. Täiendav analüüs kinnitas, et meeldivaid tööülesandeid täideti esmajärjekorras. Tööalaste toimingute lähem uurimine tõi esile, et kõige sagedamini sooritati toiminguid, mis on seotud nõustamise ja kommunikatiivsete rollidega: meeskonnatöö algatamine, suhtlusreeglite jõustamine, probleemsete õpilaste eest hoolitsemine ja koostöö kooli juhtkonnaga. Selliste tööalaste toimingute sooritamine näitab, et koostöö või töötamine meeskonnana, mis on õpetajate tavalised töövormid, on olulised ka juhtimises (Siiman *et al.*, 2020).

Teine uuring keskendus faktoritele, mis põhjustasid koolijuhtidel tugevat tööstressi ja vähest tööga rahulolu (kuid ka tööga rahulolu). Uuring näitas, et ametikoht (direktor või direktori asetäitja) mõjutas koolijuhtide tööülesandeid ning nendega seotud rahulolu, mis omakorda seondusid koolijuhi ametikoha ja vanusega. Samas mõjutasid koolijuhi vanus, kooli tüüp (päevakool või internaatkool) ja kooli klassifikatsioon Ghana riiklikus süsteemis koolijuhtide rahulolu tööga. Koolijuhi täidetavaid tööülesandeid peeti üldiselt stressirohkeks, kuigi tööga rahulolu hinnati positiivseks. Ühtlasi ilmnes uuringust, et vanemad koolijuhid kannatasid vähem tööstressi pärast. Tulemus ühtib Dadaczynski ja Pauluse (2016) uuringu järeldustega, mille kohaselt on tööstress väiksem vanematel koolijuhtidel, kuid see on vastuolus Darmody ja Smythi (2016) uuringu tulemustega. See järeldus võib osaliselt olla tingitud koolijuhtimise hierarhilisest olemusest ning kultuurilistest iseärasustest Ghanas. Juhtimine koolis sõltub tööstaažist ja ka tavast, et juhtpositsioonidel on vanemad inimesed. Direktorid on üldiselt vanemad kui õppejuhid, kes on aktiivsemad ja sooritavad enamiku juhtimisega seotud igapäevastest toimingutest.

Kolmas uuring keskendus reformide (uuenduste) elluviimisele koolis ja sellest tulenevale stressile. Tulemused näitavad, et koolijuhid üldiselt täidavad reformimisega seotud tööülesandeid, ehkki need osutusid stressirohkeks. Need tulemused on sarnased Esia-Donkoh' (2014) tulemustega, mille kohaselt täidavad põhikoolide juhid koolijuhtimise üldise uuendamise funktsioone, kuid teevad seda raskustega. Kooliuuenduste elluviimise stressirohkus langeb kokku Darmody ja Smythi (2016), Juma ja Simatwa (2016) ning Deneckeri (2019) tulemustega, mille järgi kogevad koolijuhid oma tööülesannete täitmisel mõõdukat või tugevat stressi.

Neljanda uuringu fookus oli suunatud hea kooli mõistele ja koolijuhtide tööülesannetele kooli kvaliteedi parendamisel. Tulemused näitavad, et hea kooli mõiste hõlmab täies mahus õpilaste arengut, piisavalt ressursse ning head koolikliimat, mis võimaldavad õpilastel õppida paremini ning ühiskonnal seeläbi kasu saada. Hea kooli kirjeldus on sarnane UNICEF-i (2000) definitsiooniga ning Eze

(2009) arusaamadega heast koolist, kus oluliseks peetakse häid õppijaid, toetavat õpikeskkonda, asjalikku õppesisu ning häid õpitulemusi.

Uuringu tulemused toovad ühtlasi esile koolijuhtide tööülesanded, mis soodustasid kooliarendust, ning faktorid, mis mõjutasid tööstressi. Koolijuhid panustasid meeskonna professionaalsele arengule, õpilaste akadeemilistele tulemustele ja tegevustele, mis olid seotud õpetajate supervisiooniga, eraldades selleks vahendeid ning kujundades õppimiseks ja õpetamiseks sobiva õhustiku. Samas on õpetajate supervisioon, nende mittekaasatöötamine, finantside ja õppevahendite nappus ning bürokraatia peamised stressiallikad hea kooli kujundamisel. Koolijuhte toetasid koolistressiga toimetulekul nende akadeemilise hariduse kvalifikatsioon, kogemused ning ametijärk. See tulemus on sarnane Valentine'i ja Prateri (2011) tulemustega, mille kohaselt on koolijuhi haridustase oluline tööülesannete täitmisel. Ghana haridusvaldkonna magistrikraadiga koolijuhtidel on tööülesannete edukaks täitmiseks olemas vajalikud teadmised ning eelmistest ametitest saadud kogemused. Saab järeldada, et akadeemiline kvalifikatsioon ning aastate jooksul omandatud kogemused toimisid stressirohkete tööülesannete korral rahustavate faktoritena oma kooli arendamisel (Lazaridou & Beka, 2015; Netuveli *et al.*, 2008).

Piirangud, soovitused ja peamised järeldused

Piiranguna tuleb välja tuua tõik, et kvantitatiivsetes uuringutes kasutati läbilõikestrateegiat, mistõttu pole tulemused üldistatavad. Samas on tulemused valiidsed ja neid saab rakendada mistahes hariduskontekstis. Tulevastes uuringutes tuleb valimile siiski rohkem tähelepanu pöörata.

Kokkuvõtteks andis töö ülevaate koolijuhtide tööülesannete eelistustest, neid mõjutavatest stressiteguritest ja koolijuhtide rollist kooliarenduses. Koolijuhtide eelistatud tööülesanded keskendusid kolmele teemale: õpetamine, juhtimine ja nõustamine. Koolijuhtide täidetud tööülesanded hõlmavad õpetamise ja õppimise edendamist, õpilaste heaolu, õpetajate arengut ja kooli kui õppiva kogukonna kujundamist. Tööülesannete täitmine oli stressirohke (Darmody & Smyth, 2016; Elomaa *et al.*, 2021), kuid tegutsemise käigus saavutatud rahulolu kujunes motivatsiooniks, mis vähendas stressi (Bedi & Kukemelk, 2020; Fernet *et al.*, 2010; Lam & Gurland, 2008). Samas aitasid akadeemilised kvalifikatsioonid ja haridussüsteemist saadud kogemused (nt eelmised rollid koolis) koolijuhtidel edukalt tegeleda stressi tekitavate tööülesannetega. Väitekirjast järeldub, et õpetajate supervisioon, ressursside nappus ja haridusbürokraatia on koolijuhtidele kooli arendamisel peamisteks stressiallikateks.

Dissertatsioonil on mitmekülgne tähtsus ja praktiline väärtus haridusuuringute kontekstis. Ghana koolijuhi roll ja faktorid, mis mõjutavad koolijuhi heaolu koolis, on uus teadmine valdkonnas. Tänu väitekirjale on koolijuhtidel nüüd teaduslikud tõendid selle kohta, et tööülesannete jagamine asetäitjatega (õppejuhtidega) vähendab nende stressi ning et asetäitjad täidavad antud tööülesandeid parema meelega. Koolipidajad saavad uusi koolijuhte määrates arvestada vanuse ja tööstressi dünaamikat. Kuna vanemad koolijuhid kogevad vähem stressi kui

nooremad, siis koolijuhi ja tema asetäitja karakteristikuid kooli tüübiga sobivalt kombineerides on võimalik saavutada meeskonnas väga hea tööstressi tasakaal. Tõendid, et õppejuhid ja nooremad direktorid kogevad rohkem tööstressi, tekitavad vajaduse selliste haridusjuhtide järele, keda on ette valmistatud jääma töö-ülesannete täitmisel rahulikuks. Samuti on vajalik ressursside võrdväärne jagamine koolidele. Koolihooneid, kvalifitseeritud õpetajaid ning finantse peab proportsionaalselt jaguma kõikidele koolidele, et tagada kooli kvaliteedi paranemine ja hea töökeskkond kogu töötajaskonnale. Dissertatsiooni põhjal võib koolijuhte julgustada olema uuenduslikud ja loomingulised, et tagada eri ressursside hea tasakaal ja parandada seeläbi hariduse kvaliteeti koolis.

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APPENDICES

Appendix 1. Quantitative research instruments

University of Tartu, Estonia

Faculty of Social Sciences,
Institute of Educational Science
Jacobi 5, 51005 Tartu.
Estonia

Research Questionnaire
Senior High Schoool Heads & Assistants – Ghana

European Union
European Regional
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Invitation

Dear Headmaster / Deputy Headmaster,

I am a student at the Institute of Educational Science, University of Tartu, Estonia. As part of the requirement for the award of the degree, I am conducting a research on School Heads job stress and factors influencing it. I would be most grateful if you could complete this questionnaire regarding your job as Head (or Assistant) as honestly as possible. I urge you to answer all the questions as you can. It should take about 30 minutes in completing it.

Please, if you agree to participate, read and sign the information and consent form below.

Thank you.

Innocent Kwame Bedi

(Researcher)

Information and Consent Form

The general objective of the study is to have empirical understanding of the job preferences of school heads and inherent job stress and related issues. The benefit is that scientific evidence will be gathered to influence policy in improving quality of school leadership and work conditions of school leaders locally and for international comparison of school leadership functions. There is no risk involved in participating as all scores will be kept anonymous and not used by a third party.

Be assured that your responses will be used exclusively and strictly for academic purposes. In view of this your personal identity is not required. Also, the name of the school is not required anywhere in the study. Participation in this survey is voluntary and you are at liberty to refuse participation.

Your participation is however, very important and greatly appreciated. The results of the study will be made public for you to access.

Should you have any questions about this research and its conduct, you may contact me (+233 244579632 / +233207803350).

Thank you.

Consent: I have read this statement and agree to participate in the study under the conditions presented.

…….

Respondent

*Estonian Code of Conduct for Research Integrity, Tartu (October, 2017)

Instruments

Please, respond to the following questions:

Section 1: School and Respondent information

Please respond to the following questions by ticking the boxes or writing your responses in the spaces provided

1.	Region		Municipal /District		Town	
2.	Type of School	Public Day □	Public Boarding & Day □	Private □	Double Tracking? Yes □ No □	
3.	Classification of School	A □	B □	C □	Other / No grading □	
4.	Sex of Respondent	Male □		Female □		
5.	Position of Respondent	Head □	Deputy Head (1) □	Deputy Head (2) □		
		Deputy Head (other) specify				
6.	Your age (in years), please	Please write here	Marital Status	Please write here		
7.	Rank (in G.E.S)	Director I □	Director II □	Deputy Director □	Assistant Director I □	Assistant Director II □
8.	Number of years in Education Service	Please, write here				
9.	Number of years as Head / Deputy Head	Please, write here				
10.	Students Enrolment data 2018 /2019	Total Boys ……	Total Girls ……	Total Boarding ……	Total Day ……..	
11.	No. of Staff	Total Teaching ……	Total Non – teaching ……			

Section 2: Activities School Heads perform and level of enjoying performance

Please, in the table below are list of **activities / practices**. Please, you are kindly requested to make **TWO** responses to each item in the table. **TICK / WRITE** the number that corresponds to your choice in the appropriate cell using the **KEY** provided below. Thank you.

Frequency of performing activity:

1=Never Performed 2 = Seldom Performed 3 = Sometimes Performed 4 = Often Performed 5 = Always Performed

Level of enjoying performance:

1= Not enjoyed at all 2=Enjoyed a little 3= Somewhat enjoyed 4= Enjoyed 5=Enjoy very much

1. To what extent do you **PERFORM** and **ENJOY** the following activities?

Ref. No.	Theme / Activity	Frequency of Performing Activity						Level of Enjoying Performance of Activity				
AE	**Development of Teaching Practice**	1	2	3	4	5		1	2	3	4	5
AE1	Planning academic calendar for the school											
AE2	Performing activities /class allocation with the cooperation of teachers.											
AE3	Evaluating/assessing teacher's lesson notes.											
AE4	Encouraging teachers to try out new teaching methods											
AE5	Critically reflecting on teaching methods together with the teachers											
BE	**Education / Guidance & Counselling**											
BE6	Enforcing the agreed code of conduct related to interactions in the school											
BE7	Ensuring school / class attendance											
BE8	Taking care of individual students if they have problems											
BE9	Providing Career guidance to students											
BE10	Discussing educational matters with parents (including information on State Policies on Education)											
BE11	Mediating between teachers and parents when conflicts arise											
CE	**Human Resource Management and Staff Development**											
CE12	Conducting Termly appraisal meetings											
CE13	Having interaction with non-teaching staff											
CE14	Advising teachers on their work											
CE15	Conducting meetings with the Assistants and the School Leadership Team / Management Committee											

Ref. No.	Theme / Activity	Frequency of Performing Activity						Level of Enjoying Performance of Activity				
CE16	Assessing teachers' performance											
CE17	Preparing staff development plan e.g. in – service training											
CE18	Supporting teaching and non – teaching staff in difficult situations											
CE	**Human Resource Management and staff development**											
CE19	Moderating meetings to resolve teacher conflict											
CE20	Recommending Professional Development Courses for staff											
DE	**Organisation and Administration**											
DE21	Organising to maintain school buildings											
DE22	Communicating information (letters, emails, memos, reports for School Board, G.E.S., Student Council, Parents' representatives)											
DE23	Preparing School budget											
DE24	Providing data on school (e.g. furniture qty., classroom space, students and teachers data etc.)											
DE25	Organisational planning (staffing, timetables, resources, rosters, staff replacements)											
DE26	Sharing important information with stakeholders (e.g. G.E.S., teachers, students)											
DE27	Writing reports for educational authorities											
DE28	Organising parent information sessions (Parent Teacher Association meeting)											
EE	**Quality assurance**											
EE29	Conducting school evaluations											
EE30	Analysing evaluation results											
EE31	Being accountable for school performance											
EE32	Giving feedback to the staff about external evaluations											
EE33	Giving feedback to parents and students' council about evaluation results											
FE	**Quality development**											
FE34	Developing the School Vision (Mission statement)											
FE35	Contributing to the school development plan											
FE36	Cooperating with the School Management team											

Ref. No.	Theme / Activity	Frequency of Performing Activity						Level of Enjoying Performance of Activity				
FE37	Defining strategic aims for school development											
FE38	Inducing (influencing) internal agreements											
FE	**Quality development**											
FE39	Initiating School improvement processes											
FE40	Implementing school reforms											
FE41	Developing a plan for continuous professional development of staff											
FE42	Communicating the school's vision (or mission statement)convincingly											
GE	**Representation**											
GE43	Representing the school at official internal and external events											
GE44	Giving speeches at school events											
GE45	Negotiating with representatives of educational authorities											
GE46	Welcoming guests to the school and being host											
GE47	Presenting the school in the media (newspapers, radio, TV etc.)											
GE48	Representing the school's interests in meetings with superiors/educational authorities											
HE	**Cooperation with external partners**											
HE49	Maintaining good working relation with PTA executives											
HE50	Participating in activities of Conference of Heads											
HE51	Building partnerships with other schools											
HE52	Cooperating with organizations(e.g. NGOs), companies and associations											
HE53	Fundraising (raising additional financial resources) for the school											
HE54	Maintaining contact with Old Students' Association											
IE	**Collaboration within the school**											
IE55	Initiating teamwork											
IE56	Promoting a cooperative culture											
IE57	Cooperating with project teams											
IE58	Conducting / chairing staff meetings											
IE59	Stimulating interdisciplinary projects with teachers											

Section 3: Activities School heads find Stressful

Please, in the table below are list of activities / functions. Please tick / write the number that corresponds to your choice in the appropriate box. Thank you

2. To what extent do you feel **STRESSED** in performing the following activities?

Ref. No.	Theme / Activity	Causes No stress	Causes Little stress	Causes Some-what stress	Causes Stress	Causes Great stress
AS	**Development of Teaching Practice**	**1**	**2**	**3**	**4**	**5**
AS1	Planning academic calendar for the school					
AS2	Performing activities /class allocation with the cooperation of teachers.					
AS3	Evaluating/assessing teacher's output (or Lesson notes)					
AS4	Encouraging teachers to try out new teaching methods					
AS5	Critically reflecting on teaching methods together with the teachers					
BS	**Education / Guidance & Counselling**					
BS6	Enforcing the agreed code of conduct related to interactions in the school					
BS7	Ensuring school / class attendance					
BS8	Taking care of individual students if they have problems					
BS9	Providing Career guidance to students					
BS10	Discussing educational matters with parents (information on State Policies on Education)					
BS11	Mediating between teachers and parents when conflicts arise					
CS	**Human Resource Management and staff development**					
CS12	Conducting Termly appraisal meetings					
CS13	Having interaction with non-teaching staff					
CS14	Advising teachers on their work					
CS15	Conducting meetings with the Assistants and the School Leadership Team / Management Committee					
CS16	Assessing teachers' performance					
CS17	Preparing staff development plan e.g. in – service training					
CS18	Supporting teaching and non – teaching staff in difficult situations					

Ref. No.	Theme / Activity	Causes No stress	Causes Little stress	Causes Some-what stress	Causes Stress	Causes Great stress
CS19	Moderating meetings to resolve teacher conflict					
CS20	Recommending Professional Development Courses for staff					
DS	**Organisation and Administration**	**1**	**2**	**3**	**4**	**5**
DS21	Organising to maintain school buildings					
DS22	Communicating information (letters, emails, memos, reports for School Board, G.E.S., Student Council, Parents' representatives)					
DS23	Preparing School budget					
DS24	Providing data on school (e.g. furniture qty., classroom space, students and teachers data etc.)					
DS25	Organisational planning (staffing, timetables, resources, rosters, staff replacements)					
DS26	Sharing important information with stakeholders (e.g. G.E.S., teachers, students)					
DS27	Writing reports for educational authorities					
DS28	Organising parent information sessions (Parent Teacher Association meeting)					
ES	**Quality assurance**					
ES29	Conducting school evaluations					
ES30	Analysing evaluation results					
ES31	Being accountable for school performance					
ES32	Giving feedback to the staff about external evaluations					
ES33	Giving feedback to parents and students' council about evaluation results					
FS	**Quality development**					
FS34	Developing the School Vision (Mission statement)					
FS35	Contributing to the school development plan					
FS36	Cooperating with the School Management team					
FS37	Defining strategic aims for school development					
FS38	Inducing (Influencing) internal agreements					
FS39	Initiating School improvement processes					

Ref. No.	Theme / Activity	Causes No stress	Causes Little stress	Causes Some-what stress	Causes Stress	Causes Great stress
FS40	Implementing school reforms					
FS	**Quality Development**					
FS41	Developing a plan for continuous professional development of staff					
FS42	Communicating the school's vision (or Mission statement) convincingly					
GS	**Representation**	**1**	**2**	**3**	**4**	**5**
GS43	Representing the school at official internal and external events					
GS44	Giving speeches at school events					
GS45	Negotiating with representatives of educational authorities					
GS46	Welcoming guests to the school and being host					
GS47	Presenting the school in the media (newspapers, radio, TV etc.)					
GS48	Representing the school's interests in meetings with superiors/educational authorities					
HS	**Cooperation with external partners**					
HS49	Maintaining good working relation with PTA executives					
HS50	Participating in activities of Conference of Heads					
HS51	Building partnerships with other schools					
HS52	Cooperating with organizations (e.g. NGOs), companies and associations					
HS53	Fundraising (raising additional financial resources) for the school					
HS54	Maintaining contact with Old Students' Association					
IS	**Collaboration within the school**					
IS55	Initiating teamwork					
IS56	Promoting a cooperative culture					
IS57	Cooperating with project teams					
IS58	Conducting / chairing staff meetings					
IS59	Stimulating interdisciplinary projects with teachers					

Section 4: Job Stress

3. To what extent do you agree or disagree with the following statements? **Please tick the appropriate box that corresponds to your choice. Thank you.**

No.	Statements	**Strongly disagree (1)**	**Disagree (2)**	**Neither agree nor disagree (3)**	**Agree (4)**	**Strongly agree (5)**
S1.	Working here makes it hard to spend enough time with my family					
S2.	I spend so much time at work; I hardly have time to relax.					
S3.	Working here leaves little time for other activities					
S4.	I frequently get the feeling I am married to the school					
S5.	I have too much work and too little time to do it					
S6.	I dread the telephone ringing at home because the call might be school – related					
S7.	I feel like I never have a day off					
S8.	Too many colleagues at my level in other schools get burned out by job demands					

Section 5: Well-being and Job Satisfaction

4. **To what extent do you agree or disagree with the following statements about YOU and YOUR WORK? Please tick the appropriate box that corresponds to your choice. Thank you.**

No.	Statements	Strongly disagree 1	Disagree 2	Neither agree nor disagree 3	Agree 4	Strongly agree 5
JS1	My school is a good place to work					
JS2	I have a choice in deciding what I do at work (school)					
JS3	I never seem to have enough time to get my work done					
JS4	I can decide when to take a break during my working day					
JS5	I feel pressured to work long hours					
JS6	I can make my own decisions about how I do my work					
JS7	The pace of my work is too fast					
JS8	I know how to get my job done					
JS9	I have the appropriate resources to do my job					
JS10	My job makes a difference in the school community					
JS11.	Most of the time I feel satisfied with my job.					
JS12.	I feel responsible for making this school successful.					
JS13.	If I had to do it again, I would remain a teacher rather than become a Head.					
JS14.	If I had a choice, I would work in another industry/sector other than education.					
JS15.	My success or failure as a Head is due primarily to factors beyond my control.					
JS16.	I have adequate time for teacher evaluation.					
JS17.	I have received appropriate training by my employer to enable me to fulfill my responsibilities.					

No.	Statements	**Strongly disagree**	**Disagree**	**Neither agree nor disagree**	**Agree**	**Strongly agree**
		1	**2**	**3**	**4**	**5**
JS18.	I have been too busy dealing with managerial tasks to give instructional issues the attention they deserve.					
JS19.	I wouldn't want to work in any other school.					
JS20.	I would recommend this school to parents/guardians seeking guidance on school selection for their child.					

The end

Thank you.

Appendix 2. Interview guide

University of Tartu
Institute of Education
Interview Guide

(Headmasters / Headmistresses only)

Main interview (after completing Daily log)

Opening

Exchange of pleasantries / Introduction / Seek permission to record the interview, etc.

Introduction:

Thank you for accepting to participate in this study. This is the last part of the Diary you completed. I would anonymise your responses and use them only for research / academic purposes. So please, respond as objectively as possible. Thank you.

Part 1 – Resource availability and Demands

Q1. Please describe your career path toward becoming a Head

- Process of becoming a head / how did you become a head?
  - Qualifications (academic and professional)
  - Previous related experience

Part 2.0 – Understanding Quality School

Q2. What is your perception of a Quality school /what is a quality school/what makes a school a quality one?

Q3. What activities/events/programs/practices would you say lead to the development of School quality

Q4. Which of these activities do you perform? (a reference to Q3.)

Part 3 – Nature of activities perform regarding school quality improvement

Q5. Do you find these activities stressful to perform? Please name the activities if yes. (Which of these activities is less stressful to execute (a reference to Q4. if no) and why?.

– What factors (activities) can you identify as sources of stress for you in performing the activities in your school? (Q4.)

Part 4 – Support factors

Q6. What resources support you / do you rely on / are relevant is your performance? *in which way?

– professional Rank, qualification, work experience etc

Q7. How are these resources (Q6., name them) shaping your delivery as Head?

– Would you say that you have enough resources (e.g. qualification, experience, skills, etc.) to make you more comfortable performing your duties? If yes, please name the resources and briefly tell how relevant they are to your work.

Part 5 – Debriefing

As you observed, the questions relate to your personal experiences in performing practices as Head of this institution. The study is an academic project investigating school heads' Practices, Job stress, and related factors in ensuring school quality.

Thank you.

Background information: School and Personal Details

(Details provided are for academic use only. No third party would have access to the information.)

1.	Description of school	Public Mission ☐	Public Community ☐	Day SHS	Day & Boarding ☐			
2.	Location of school(Town) ……	District/Municipality ……		Urban ☐	Suburban ☐	Rural ☐		
3.	No. of years as Head (present school)	Write here		4. No. of years serving in GES	Write here			
5.	Gender (tick)	Male ☐	Female ☐	6. School enrolment	Write here			
7.	Your present Rank	Write here		8. No. of schools previously served as Head (former schools, if any)	Write here No…… Yrs……			
9.	Other positions in which you served (in Education/Church/Community/CHASS							

ACKNOWLEDGEMENTS

I give glory and honour to God almighty for this outstanding achievement in my family's history. Next, I express my most profound appreciation and gratitude to my primary Supervisor, Hasso Kukemelk, PhD, in the first place for accepting me to supervise my doctoral studies. It is a privilege to study under his feet. He provided guidance, support, and insight into my research and had been more than a father and an excellent host to me. I am equally indebted to Associate Professor Emanuele Bardone, PhD, my co-supervisor. His addition provided additional support to me. This achievement would not have been possible without the assistance of Prof. Ben Honyenuga, PhD (Vice-Chancellor, Ho Technical University, Ghana) who was the Host Supervisor during the data collection period in Ghana. I am grateful to you all my supervisors for your support. I also thank the leadership of the Institute of Education. Prof. Äli Leijen, PhD, Prof. Margus Pädaste, PhD, Prof. Miia Rannikmäe, Prof. Evelyn Kiive, PhD, Krista Loogma, PhD and the Doctoral Defence Committee for their guidance in shaping this dissertation.

Many thanks to all the school heads who participated in the study and to Mr Richmond Edem Kpotosu (Ghana Education Service, Volta Region) for the tremendous support.

Travelling to Estonia would not have started without the support of my good friends and family. I express my gratitude to Seji Saji, Patrick Assiamah, Samlafo John-Doe, Torgbui Tali II (King Noah Tali), Rev. Kwaku Aaron Amanor, Johnny Arthur-Andor, PhD, John-Bosco Kpapu, Agbenyo Godwin Ndor, Nanevi Jonathan, Azumah Joseph and Prof. James Agbodzakey, PhD. I am equally indebted to Gabriel F.K. Wotordzo and the Holy Spirit College of Education, Ho, Ghana.

Significantly, I owe tons of gratitude to Isaac Nana Akuffo, PhD, for recommending the University of Tartu to me and for his immense support during my PhD journey. To Anneli Adamson, whose assistance predates my doctoral journey, I say aitäh. I am also sincerely grateful to my colleagues Laura Kirss, Dr Joseph Charles Grannum, Gerli Silm, PhD, Külli Kallas, Tapashi Binte, PhD and Wilson Otchie, PhD for their contributions.

Many thanks also go to my wife, my parents, my siblings and my children for the inspiration, prayers and well wishes. The same gratitude goes to Most Rev. Emmanuel Kofi Fianu, SVD (Catholic Bishop of Ho Diocese, Ghana), Rev. Fr. Godslove Agbeko Yevu, Eric Delle, PhD, Mr Asem Gustav, Mr Feli Richard, Mr Anthony Akordor, Mr Stephen Dzorkpata, Mr Salakpi Stephen, Mr Kofi Torku and Mr Paul Mallet for their encouragement.

Special thanks to my uncles Harry Nyaledzigbor, Gilbert Nyaledzigbor, PhD, Trinity Yevoo and all my aunties for their contributions to my education.

Lastly, I am thankful to the government and the people of the Republic of Estonia, and the University of Tartu, for the scholarship and the warm hospitality.

I dedicate this achievement to the memory of Emmanuel Ewe, Constance Kwabla Alorbu and Stanley Yao Nyaledzigbor.

PUBLICATIONS

CURRICULUM VITAE

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Education

2018–…	PhD Candidate, Tartu University, Institute of Education, Estonia
2008–2010	MPhil, Psychology, University of Ghana
2003–2006	BA Psychology with Economics, University of Ghana
1998–2000	Diploma in Statistics, University of Ghana
1993–1996	Teachers' Certificate 'A', St. Francis College of Education, Ghana
Nov. 1996	General Certificate of Education, Advanced Level
1988–1993	General Certificate of Education, Ordinary Level, Abor Secondary School, Abor

Professional experience

Feb.–Jun. 2020	Assistant Lecturer (Communicating Science), University of Tartu, Estonia
2010–2018	Statistics & Research Officer, Catholic Education Unit, Volta Region, Ghana
2009–2018	University of Ghana, Distance Learning Centre (Part-time tutor, Psychology, Research Methods and Statistics)
2010–2014	Field officer and Census report analyst, Ghana Statistical Service, Volta Region (Contract)
2000–2003	Mathematics and ICT Tutor, Osino Presbyterian Senior High School, Eastern Region, Ghana
2006–2008	Mathematics Tutor, Sakumono Complex 'A' Junior High School, Sakumono, Tema
1996–1998	Mathematics Tutor, Klenormadi Junior High School, Ketu North District.

Supervision of thesis experience

Supervised one masters level thesis in the field of Educational Technology. One other to be completed in the 2022/23 academic year.

Research interest

School Leadership Practices and Management; Job stress and Work conditions; Relationship and Mental health

Publications

Bedi, I.K., & Kukemelk, H. (2020). School Heads' Practices Defined. *Journal of Educational and Social Research,* 10(5),187–199

Bedi, I. K., Kukemelk, H., & Bardone, E. (2021). Practices, personal and school factors that influenced school heads' job stress and satisfaction. *European Journal of Educational Research,* 10(1), 51–62. https://doi.org/10.12973/eu-jer.10.1.51

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Bedi, I.K., & Kukemelk, H. (2018). School Principals and Job Stress: The Silent Dismissal Agent and Forgotten Pill in the United Nations Sustainable Development Goal 4. *US-China Education Review B*, 8 (8), 357–364. doi:10. 17265/2161-6248/2018.08.004.

Amedome, N.A., & Bedi, I.K. (2018). The Effects of Religion and Locus of Control on Perception of Mental Illness. *Journal of Religion and Health,* 58 (2), 653–665.10.1007/s10943-018-0658-3.

Amedome, N. S., Bedi, I. K., & Manyeyo, G. (2018). Exploring Students' Assessment of Psychological Services in Technical Universities in Ghana for Improved Quality Education. Journal of Education, Society and Behavioural Science, 25 (2), 1–9.10.9734/JESBS/2018/41646.

Bedi, I. K. (2014). Influence of Sex-Role Orientation, Marital Power and Religiosity on Marital Satisfaction: A study among Public Servants in Ghana. Research journali's Journal of Sociology, 2 (5), 1–18.

Book Chapter

Bedi, I.K., Amanor, A.K., & Amedome, S.N (2021). 'Evaluation of the state of Mental Health in Ghana: The policy, practice and education' in Ali Farazmand (Ed), Global Encyclopedia of Public Administration, Public Policy, and Governance, Springer Nature Switzerland AG.

Analytical Report

Bedi, I. K., & Kpedekpo, K. K., (2014). 2010 Population & Housing Census: District Analytical Report – Ho Municipal in Gaisie S.K and Amewu, Chris (Eds), Ghana Statistical Service, Accra. Available at www2.statsghana.gov. gh/docfiles/2010_District_Report/Volta/HO%20MUNICIPAL.pdf

Conference Presentations

Providing leadership in schools: School heads daily practices and its job stress. Presented at the 2022 Conference of Minority Public Administrators (COMPA) conference held virtually from 2 – 5 March 2022.

Reducing unemployment, acquiring entrepreneurial skills and promoting quality outcomes in Ghana schools: is the Common Core Curriculum the antidote? Presented at the Conference of Minority Public Administrators (COMPA) Conference, 2021, held virtually from 24–28 February 2021.

Formulating educational reforms versus implementation: A study among Ghanaian school heads. Presented at Conference of Minority Public Administrators (COMPA) 2020 Conference from February 26–29, 2020, at Peachtree City, GA, Atlanta United States

School Principal's functions and its resulting job stress in the context of Ghana. Presented at the World Education Leadership Symposium (WELS) 2019, hosted by the IBB of the PH Zug from September 25th – 27th, 2019, in Zug. Available at: WELS.EduLead.net

Special Courses and Workshops

Nov. 2021	DiCoTe project conference held at the University of Graz, Austria from 10.11.–14.11. 2021
May 2021	IETN PhD Course in 'Authentic Leadership' held online on May 3–7, 2021, hosted and certified by LUT University, Finland.
May 2021	Attended the Erasmus+ KA2 project "Making Technology Meaningful" online workshop "May the Digital Pedagogy Be With You" on the 27th, 28th, and 31st of May 2021.
January 2020	Introduction to Multilevel Modelling Workshop held from January 7–9 at the Centre for Multilevel Modelling, Bristol University, UK.

Award received

2020	Received the Best Paper Award, Conference of Minority Public Administrators 2020 conference held from 26–29 February 2020 at Peachtree City, GA, United States
2019	Received a citation in recognition of dedicated service to the Catholic Diocese of Ho Laity Council on 04.08.2019

Professional Organization Membership

1996–2020	Ghana National Association of Teachers (GNAT)

Leadership Positions held

2013–2017	Secretary, Catholic Diocese of Ho Laity Council, V/R, Ghana
2014–2017	Secretary, Catholic Diocese of Ho Catholic Men Association, V/R, Ghana
2005–2006	President, University of Ghana Association of Psychology Students (UNIGAPS)
2005–2006	Publications Committee Member, Commonwealth Hall, University of Ghana
2004–2005	Deputy Secretary, Ghana National Association of Teachers on Campus (GNATOC)

1995–1996	St. Martin's Hall Deputy Prefect (Commander), St. Francis College of Education, Hohoe, Ghana
1992–1993	Assistant School Prefect, Abor Senior High School, Abor

Voluntary Services
Conference of Minority Public Administrators (COMPA) virtual conference – Zoom Technical support team member, 2021 and 2022 conferences.

Hobbies
Watching African and action movies, football and admiring nature

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2018–…	Doktoriõpe haridusteadustes, Tartu Ülikool
2008–2010	Psühholoogia Magister, Ghana Ülikool
2003–2006	Bakalaureus psühholoogias koos majandusega, Ghana Ülikool
1998–2000	Diplom statistikas, Ghana Ülikool
1993–1996	Õpetaja kutsetunnistus 'A', St. Francis Hariduskolledž, Hohoe
Nov. 1996	Üldkeskhariduse tunnistus, Kõrgem tase
1988–1993	Üldkeskhariduse tunnistus, Tavaline tase, Abori Keskkool

Tööalane tegevus

Veebruar – juuni. 2020 Kommunikatsiooni nooremlektor, Tartu Ülikool, Eesti

2010–2018	Uuringute ja statistika analüütik, Katolike Koolide haridusosakond, Volta-Ghana
2009–2018	Ghana Ülikool, Distantsõppe Keskus, tuutor (Psühholoogia, uurimismeetodid ja statistika)
2010–2014	Census aruande analüütik, Ghana Statistikaamet, Volta piirkond
2000–2003	Matemaatika ja IKT tuutor, Osino Presbyterian Keskkool, Ida Regioon
2006–2008	Matemaatika tuutor, Sakumono Complex 'A' Põhikool, Sakumono, Tema
1996–1998	Matemaatika tuutor, Klenormadi Põhikool, Ketu Põhja piirkond.

Magistritööde juhendamine

Edukalt juhendatud üks magistritöö haridustehnoloogias ning teine magistritöö praegu juhendamisel (planeeritud kaitsta 2023).

Uurimisvaldkonnad

Koolijuhtimine; tööstress ja töötingimused; inimsuhted ja vaimne tervis

Publikatsioonid

Bedi, I.K., & Kukemelk, H. (2020). School Heads' Practices Defined. *Journal of Educational and Social Research,* 10(5),187–199

Bedi, I. K., Kukemelk, H., & Bardone, E. (2021). Practices, personal and school factors that influenced school heads' job stress and satisfaction. *European Journal of Educational Research,* 10(1), 51–62. https://doi.org/10.12973/eu-jer.10.1.51

Bedi, I.K., & Kukemelk, H. (2021). Influence of age and school type on reform practices performed by school heads. *Mediterranean Journal of Social Sciences,* 12(5), 82–89. https://doi.org/10.36941/mjss-2021-0046

Bedi, I. K., Kukemelk, H., & Bardone, E. (2022). Developing Quality Schools: A Content Analysis of School Heads' Practices, Stressors, and Support Factors. Manuscript submitted for publication.

Bedi, I.K., & Kukemelk, H. (2018). School Principals and Job Stress: The Silent Dismissal Agent and Forgotten Pill in the United Nations Sustainable Development Goal 4. *US-China Education Review B*, 8 (8), 357–364. doi:10. 17265/2161-6248/2018.08.004.

Amedome, N.A., & Bedi, I.K. (2018). The Effects of Religion and Locus of Control on Perception of Mental Illness. *Journal of Religion and Health,* 58 (2), 653–665.10.1007/s10943-018-0658-3.

Amedome, N. S., Bedi, I. K., & Manyeyo, G. (2018). Exploring Students' Assessment of Psychological Services in Technical Universities in Ghana for Improved Quality Education. Journal of Education, Society and Behavioural Science, 25 (2), 1–9.10.9734/JESBS/2018/41646.

Bedi, I. K. (2014). Influence of Sex-Role Orientation, Marital Power and Religiosity on Marital Satisfaction: A study among Public Servants in Ghana. Research journali's Journal of Sociology, 2 (5), 1–18.

Raamatu peatükid

Bedi, I.K., Amanor, A.K., & Amedome, S.N (2021). 'Evaluation of the state of Mental Health in Ghana: The policy, practice and education' in Ali Farazmand (Ed), Global Encyclopedia of Public Administration, Public Policy, and Governance, Springer Nature Switzerland AG.

Statistiline aruanne

Bedi, I. K., & Kpedekpo, K. K., (2014). 2010 Population & Housing Census: District Analytical Report – Ho Municipal in Gaisie S.K and Amewu, Chris (Eds), Ghana Statistical Service, Accra. Available at www2.statsghana.gov. gh/docfiles/2010_District_Report/Volta/HO%20MUNICIPAL.pdf

Konverentsi ettekanded

Juhtimine koolis: koolijuhtide igapäevased tööülesanded ning sellega kaasnev tööstress. Vähemuste avaliku halduse administraatorite (COMPA) konverentsil virtuaalselt 2.– 5. märts 2022.

Tööpuuduse vähendamine, ettevõtluse oskuste omandamine ja kvaliteetsete õpitulemuste edendamine Ghana koolis: kas ühisõppekava on vastumürk? Vähemuste avaliku halduse administraatorite (COMPA) konverentsil virtuaalselt 24.–28. veebruar 2021.

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Ghana koolidirektorite tööülesanded ja tööstress. Maailma Haridusjuhtimise Sümpoosium (WELS) Zugi Pedagoogika Kõrgkool, 25.– 27. september 2019, Zug, Šveits. Allalaaditav: WELS.EduLead.net

Erikursused ja töötoad

Nov. 2021 DiCoTe projekti konverents, Grazi Ülikool, Austria 10 – 14 november 2021

May 2021 IETN PhD kursus 'Autentne juhtimine', online 3.–7. mai 2021, korraldatud Lappeenranta Tehnoloogia Ülikooli poolt, Soome.

May 2021 Osaletud Erasmus+ KA2 projekti „Muutes tehnoloogiat tähenduslikuks" online töötoas „Kas digitaalpedagoogika võiks olla sinuga koos" 27., 28. ja 31. mai 2021.

January 2020 „Sissejuhatus multitasandilisse modelleerimisse" Multitasandilise Modelleerimise Keskus, Bristoli Ülikool, Suurbritannia, 7.–9. jaanuar 2020.

Tunnustused

Parima ettekande auhind. Vähemuste avaliku halduse administraatorite (COMPA) konverentsil, 26.–29. veebruar 2020 Peachtree, GA, Ameerika Ühendriigid

Aukiri Ho Laity Katoliku Piiskopkonna Nõukogu poolt pühendumuse eest teenistuses 04.08.2019

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Vabatahtlik teenistus

Vähemuste avaliku halduse administraatorite (COMPA) virtuaalne konverents – Zoom'i tehnilise toe meeskonna liige, 2021 ja 2022 konverentsid.

Hobid

Aafrika ja märulifilmide vaatamine, jalgpall ning looduse imetlemine.

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