Factors Influencing Participation of Pastoral Nomadic Fulani Children in Primary Education in Ghana

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Abstract:

This paper seeks to throw light on the factors affecting nomadic pastoralists' children's education in Ghana. There has been little empirical research in Ghana on nomadic pastoralist education. This study was conducted in the Northeast region in an attempt to unpack the complex dynamics of culture, society, livelihoods, and region as barriers to nomads' formal education. The study employed interviews, observations, and focus group discussions with students, including dropouts, parents, teachers, and Regional Education authorities, to understand the challenges confronting nomadic pastoralists' access to education. Using the 4-A's framework of accessibility, availability, acceptability, adaptability, and added affordability as the fifth variable. The study found that all the 5-A's posed challenges to their access to education, in addition to cultural and religious values such as early marriage, protection of pastoral values, and poverty account for their inability to attend school.

Keywords: Nomadic pastoral Fulani, formal education, cultural values, Northeast region, Poverty.

Introduction:

Research on the education of pastoral nomadic communities has focused on Mali, Niger, Nigeria, Ethiopia, Kenya, and Tanzania. There are virtually no empirical studies in Ghana although Ghana has a significant nomadic population. A further search in Google Scholar for studies relating to nomadic children's education in Ghana from August 2024 to 2020 revealed no direct or related studies. The only studies close to the subject matter are those generally on migrant children's education by [1] but not specifically on nomadic children's education. This paper aims to direct the research attention to this neglected area and to deepen the understanding of the complex intersections of society, culture, and the pastoral nomadic Fulani children's education in Ghana. This study is important not only because there are limited empirical studies in Ghana but also, more importantly, because the study contributes to the scholarly discourse from the side of Ghana relative to other parts of the global south. Moreover, this study seeks to unpack the effects of the complex intersections between society and culture on the education of pastoral Fulani children in Ghana. It thus contributes to the ongoing discourse on climate change, marginalization, and the future of pastoral nomads.

One of the unique characteristics of nomadic communities in Ghana is that nearly 90% of them

are of Fulani ethnic extraction. They are migrants from Ghana's neighboring countries such as Burkina Faso, Mali, Niger, Northern Nigeria, Guinea, Senegal, and Chad [2]. Moreover, nearly 30% are second or third-generation migrants [3]. Their movement into Ghana is influenced by climate change's impact on their livelihoods (cattle) and the desire to get better pastures and grazing fields for their cattle. Others migrated to Ghana to look for opportunities to be hired as herders by Ghanaians [4]. The relatively free and abundant pastures, water, and pastoral infrastructure in Ghana attracted them to Ghana, in the early 1940s [5]. Due to climate change and the Sahelian draughts in the 1980s, pastures and water to feed their cattle have increasingly become competitive, because of scarcity and prolonged dry seasons, compelling them to embark on transhumance and permanent migration of nomads into Ghana. In the last decade, the activities of Boko Haram, ISIS, and other terrorist activities, further pushed most of the nomads into Ghana to seek for safer and more peaceful environment. Apart from climate change and terrorists induced migration of nomads into Ghana, many governments in West Africa have serious challenges in providing better and equal opportunities for their citizens' economic, social, and cultural development. This further pushed most nomads to leave their countries of origin to seek better opportunities in Ghana [3]. With little or no formal education, this is critical for the nomads who have limited job opportunities outside the agriculture and livestock sectors. This is exacerbated by the inadequacy or poor rain patterns, threats of desertification, and the absence of decent welfare systems in most of the countries where the nomads come from. Consequently, nomads in Ghana are poorly integrated and are largely found in the peripheries, partly due to their pastoral culture, which requires them to be in the bushes closer to the pasture. Issues regarding their integration and adaptions are not given serious attention due to their isolation, nomads often live on the peripheries, inaccessible to schools, health facilities, and electricity. Most of them are peripatetic pastoralists [6].

This paper addresses several interlocking critical questions: what are the societal and cultural factors affecting the schooling of pastoral nomads in the northeast region? How do the conditions in schools affect their schooling? The next sections deal with literature on nomads' education and their movement to Ghana, then a theoretical framework drawing from [7] 4-A's framework. The research methodology follows and finally the findings, discussions, and conclusions.

The Nomadic Pastoralist:

Nomadic pastoralists are traditionally livestock breeders who earn their lives partially or fully from rearing animals. They predominantly inhabit countries in West and Central Africa, with an estimated population of 25 million people. Nomads are coterminous with the Fulani ethnic group and constitute about 25 million scattered in 11 countries, including Burkina Faso, Cameroon, Chad, Gambia, Guinea, Mali, Mauritania, Niger, Nigeria, Senegal, and Sudan [8]. The terminology used to refer to the Fulani people varies depending on the geographical area. "Fulani" is a Hausa term that is predominantly used in English-speaking countries, while the French and the Germans adopted the Wolof term "Peul" (or Pheul). Other terms include "Bororo" to refer to Fulani cattle herders, and "Fulani Sire" to refer to town Fulani or the Hausa term "Fulani Gida. More recently, the Fulbe /Pulaar (sg. Pullo) has been used by different people [8].

In Ghana, many pastoral Fulani populations are scattered across the country. The 1948 Population Census in Ghana reported that the population of nomadic pastoral Fulani was 20,000. This number increased to 25,000 and 30,000 in the Population and Housing Census of 1960 and 2000, respectively [9]. The 2020 Population and Housing Census did not provide precise figures on the pastoral Fulani population present in Ghana. Their figures were combined with those of other nationalities from the Economic Community of West African States (ECOWAS) countries, resulting in a rough estimate of 270,838 [10].

Nomadic Education in Africa:

In Ghana, Pastoral nomadic children have been disadvantaged in terms of access to formal education, because the education system in Ghana sites schools in urban areas and major villages. Even in countries such as Nigeria, where the nomadic population stood at 15.3 million, nomadic children are marginalized regarding access to formal education [11].

Literature on nomadic education in Ghana is scanty. What is closer to this is a study by [12] on the inclusion and agency of children of migrant backgrounds in Ghanaian schools. Their analysis highlights the systematic exclusion of migrant children in basic schools in Ghana and the detrimental impact it has on the academic performance of both migrant students and all students. They further emphasize relational agency among migrant students who align with those who share similar backgrounds to overcome their educational challenges. In another study on children, language, and access to education in Africa Kyeroko and Faas [13] found that, due to language constraints, students from the Francophone countries were usually put in the lower classes.

Like many other nations with substantial pastoral communities, Sudan, Ethiopia, Mali, Niger, Nigeria, Kenya, and Tanzania, issues of low school attendance and graduation rates among nomadic youngsters are highlighted in the literature [14]. Studies in Kenya, Sudan, Ethiopia, Mali, Niger, Nigeria, and Tanzania, show that most pastoralists would have loved the contemporary educational system, but the outcome of the detrimental compromise that parents and children have to make between children receiving formal education and the challenges with availability of schools, acceptability, adaptability, and affordability. The acquisition of knowledge, integrated within the social structures of pastoral existence, is essential for the growth and progress of a child [15, 16, 17 and 17 and 14.

In Somalia, where the nomadic population is about 70%, studies show providing nomads with education in the traditional manner posed challenges as the educational system was urban-based with schools situated only in towns or major villages [16]. In Sudan and Mali, Oxfam supports the creation of mobile schools for pastoralist children, whereby learners combine formal education with livelihood skills [17].

Acquiring formal education is critical for a pastoral economy as they can gain skills necessary for the development of livestock husbandry in Nigeria [16 and 17]. Studies in Kenya by Birch et al. [18] indicate that pastoralists have ceased to oppose the concept of formal schooling, as was customary two decades ago. Both children and adults have currently developed a comprehensive understanding of the significance of education and are highly motivated to acquire knowledge.

Although formal schooling serves many functions, pastoralists dread it because it isolates children from their families, broader social context, and cultural heritage [19]. It is obtained at the expense of the informal education that takes place in houses and camps [20]. Similarly, [21] found that the main obstacles to providing education to pastoralists arise from their opposition to this compulsory separation rather than from a fundamental rejection of formal learning. Nomadic pastoralists have informal ways of passing knowledge to their children residing in the camps that are beneficial to developing their social and economic skills, their cultural beliefs and traditional values frown at Western education [19].

Alternative means of providing education for Pastoral Children: Mobile schools, Mobile education, and E-learning as options:

In countries such as Ethiopia, Kenya, Nigeria, Mali, Sudan, and Tanzania where the population of nomads is larger, various strategies such as mobile schools, mobile education, e-learning, and distance learning are used to provide education for them. Some of these programmes are carried out by NGOs, and faith-based organizations in collaboration with the governments [15].

Mobile learning refers to the process of accessing educational content utilizing any mobile or wireless device [22]. Mobile learning promotes adaptability and facilitates relevant lifelong

learning, without being limited by any age restriction of the student. Mobile learning is provided remotely using mobile devices and is not limited by certain physical infrastructures, timeframes, or geographical locations. In most institutions, especially those of higher education, new technologies such as information communication technology (ICT) and e-learning have emerged as the primary driving forces.

E-learning is a comprehensive concept that refers to the use of electronic technology to obtain and enhance knowledge that directly influences attitude and behavior modification. It includes several pedagogical techniques and approaches. E-learning enables learners to acquire knowledge from any location and at any time, provided they have the necessary technology on hand to facilitate the learning process [23]. E-learning refers to the utilization of Internet technologies to augment academic knowledge and improve performance. This educational approach is alternatively referred to as web-based learning, online teaching and learning, computer assisted instruction, and internet-based teaching and learning [24]. Computer assisted learning facilitates the delivery of multimedia packages for educational purposes. E-learning is the use of technology to facilitate teaching and learning. These technologies may be within the control of teachers, learners, and their supporters. The interplay between these participants generates and reproduces e-learning procedures and applications, as well as individual and group behaviors that facilitate the learning processes. According to Jonassen et al. [25], technologies are now acknowledged and characterised as cognitive instruments. Online learning enables learners to acquire knowledge from any location and at any time, provided they have the necessary technology to facilitate the learning process. The digital content can be accessed over the internet, CD-ROM, or network, and include films, virtual environments, texts, and animations [25].

E-learning has gained momentum as a widely adopted and innovative method of teaching and learning in educational institutions across the globe. In recent times, e-learning is gained popularity among learners due to its ability to integrate their learning experience with the progress of information technology [26]. Information and Communication Technology (ICT) technologies offer a clear benefit to e-learning by completely transforming all elements of the learning process. Moreover, [27] suggest that institutions should embrace the use of ICT in education since these technologies have been demonstrated as instruments that facilitate and improve the teaching and learning process in several ways, such as offering worldwide access to learning resources.

The implementation of e-learning in Kenyan educational institutions, particularly among the nomadic and pastoral populations, presents a multitude of obstacles that must be surmounted. Salmon [28] argues that prioritizing training on the technical aspects of the e-learning system is just the initial stage towards achieving success. The true difficulty is in training for modifications in pedagogistic practices. Blinco et al. [29] argue that the success of e-learning depends on the essential condition that both teachers and students have sufficient technical abilities to use e-learning technologies optimally. According to [30], the widespread adoption of e-learning in most rural schools in Kenya is still in its early stages. This is mostly due to numerous obstacles associated with the implementation and development of infrastructure. These challenges encompass a wide range of technological, organizational, and educational issues.

In Kenya, the United States AID, the World Bank, and other NGOs support mobile education that seeks to enhance educational opportunities by offering socially, religiously, and culturally suitable fundamental education to children who may otherwise face challenges in accessing formal education [31]. In Kenya, an NGO called the Arid Lands Resource Management Project (ALRMP) and the Kenyan Ministry of Education assessed the mobile schools and concluded they have played a crucial role in enabling children to transition to the formal education system [32]. Although not all

nomadic children will undergo a transition, the operation of mobile schools guarantees that the majority of children get fundamental pre-primary and elementary education.

To resolve this, the Kenyan government came out with a policy known as the National Nomadic Policy in 2010 [33]. It provided a beacon of hope for the educational opportunities available to the nomadic and pastoralist communities in Kenya. This policy aims to tackle a range of concerns related to nomadic schooling. The policy stipulates that the government should formulate measures and activities that will not only be advantageous to the children but also to the entire community [33]. The policy further recommends that the government would need to establish educational curriculums that align with the nomadic calendar, which is organized according to seasons, and also take into consideration, issues of climatic change and the patterns of nomadic livelihoods [34]. The government is expected to employ informal methods that are tailored to the pastoralists' local setting. This will enable nomadic pastoralist tribes to independently oversee their learning processes and incorporate formal education into their respective indigenous customs and social

structures. This presents an opportunity to create a curriculum that acknowledges the importance of indigenous knowledge. This curriculum will be complemented by culturally sensitive educational resources and will also facilitate the acquisition of cognitive information for the learners. Prorammes should encompass the implementation of distance learning, home-based learning, mobile schools, affordable boarding primary schools, mobile education, and e-learning.

Tomaševki's theoretical framework: availability, accessibility, acceptability, adaptability, and Affordably:

This paper draws from the 4-A's framework by [7], as a means of analysing the factors affecting the education of nomadic children in Ghana. The present study employs the 4-A's framework and utilizes the toolbox technique to modify and add the most pertinent indicators that apply to the specific condition being investigated. The sub-indicators of availability, accessibility, acceptability, and adaptability are most pertinent to this study, have been chosen and modified to include a fifth indicator i.e. affordability for analysis [7], and are summarised in Figure 1 below.
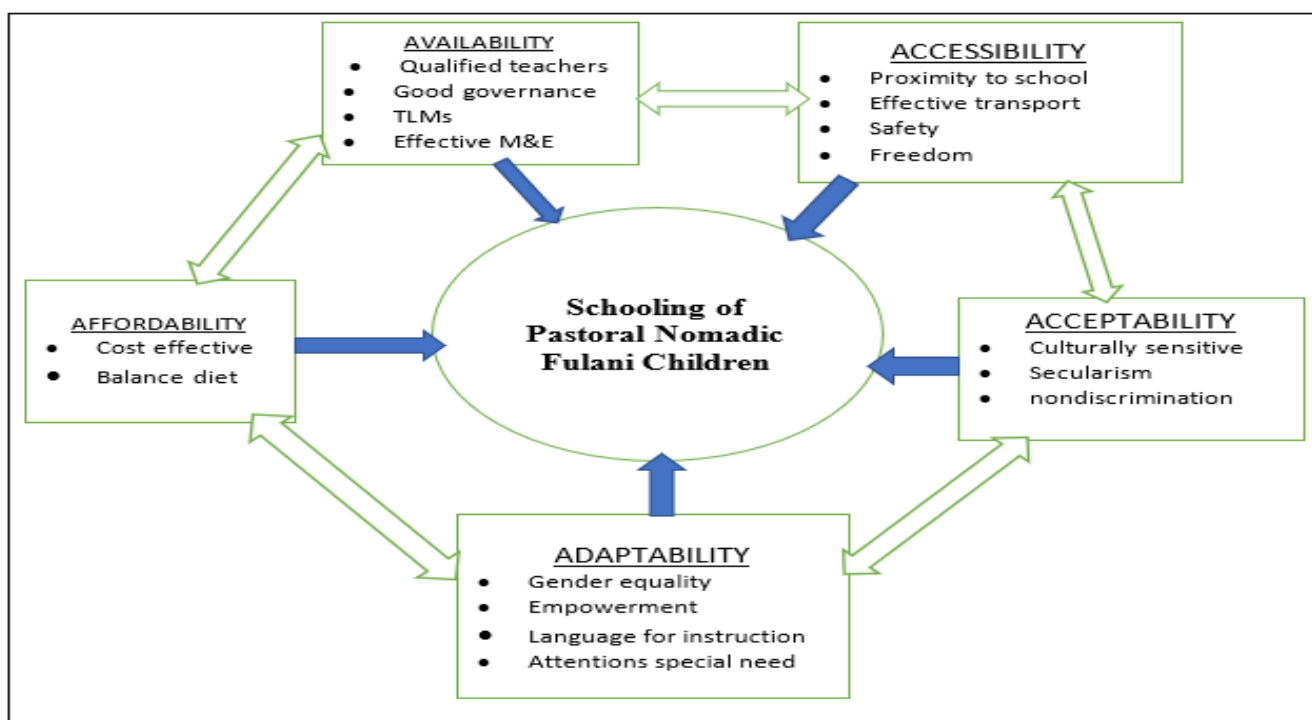

Figure 1: The 5-A's framework
Source: Tomaševki (2001) with modification by the author,

1. *Availability*: The concept of availability pertains to the provision and dissemination of education services, together with the existence of sufficiently qualified teachers, an effective education governance system, availability of teaching and learning materials (TLMs), and effective monitoring and evaluation systems. Education equity refers to the principle of guaranteeing that necessary education resources, including teaching and learning materials, qualified teachers, and competent management personnel, are easily available and fairly allocated across different groups. The concept of availability encompasses the provision of suitable education infrastructure, which includes facilities and technology, and the inclusion of marginalized children with special needs.

2. *Accessibility*: This pertains to the level of convenience with which persons can get education services. The concept of accessibility includes elements such as the proximity to schools, the range of transportation choices, and the presence of professional teachers or qualified teachers. Furthermore, it encompasses the guarantee of physical and financial accessibility of education or school services for individuals with impairments or from underprivileged communities. Accessibility must also cover issues of safety from home to school, safety in school, and freedom from intimidation, discrimination, and bullying from students, administrators, and teachers.

3. *Acceptability* mandates that the form and content of education, including curricula and teaching methods, must be acceptable to both learners and parents. This acceptance must align with the educational objectives and standards. Applying acceptability as a criterion, the educational content should be pertinent to the existing circumstances of the individuals that the education system aims to impact. Educational systems should be impartial and culturally attuned, taking into consideration the multitude of beliefs held by individuals concerned. Students in educational institutions should not be compelled to endorse any religious or ideological perspectives. It is imperative to confront stereotyping, name-calling, bullying, labelling, and other manifestations of discrimination [7]. Effective teaching approaches should prioritize the student and consider the diverse cultures present in the classroom. Within multicultural classrooms, teachers should not only mirror the perspectives of the prevailing culture but also encompass the perspectives of other cultures.

4. Adaptability: The principle of adaptability asserts that education can adapt to the changing demands of society and actively address disparities, such as gender discrimination. Furthermore, it can be customized to fit particular circumstances at the local. The adaptability of the education system is crucial in ensuring that education conforms to the requirements of all individuals concerned. While adaptation permits the implementation of some educational requirements, educators should also seek opportunities to empower marginalized groups who may face limitations imposed by the social framework.

The teaching methodologies, language of instruction, the school enrolment, and attitude to pastoral children should be modified to accommodate the specific requirements of the learners. Accommodating the variations in social class, such as age, gender, migrant status, ethnicity, culture, language, and others, are crucial elements of adaptability. An essential aspect of flexible educational systems is the implementation of a supplementary support system rather than a universal answer. The degree to which teachers modify instructional approaches to accommodate diverse age groups and multicultural classrooms acts as a determinant in assessing the extent of support networks accessible for bilingual pupils. Adaptability necessitates educators to take initiative in offering solutions not just to students facing apparent difficulties inside the educational institutions, but also devote equal attention to those that are not readily apparent. The previously examined research [35] demonstrates that certain

migrant students experience adverse effects from grade retention, language difficulties, invisibility, or being marginalized in a classroom setting. The degree of proactivity shown by schools in responding to the identified issues provides insight into the adaptability of the system.

5. Affordability: Affordability pertains to the economic feasibility of education services. Education service affordability refers to the process of ensuring that the expenses associated with education services, such as school uniforms, books, healthy and nutritious meals, and school fees, are within the financial capacity of individuals and families.

This theoretical framework enables a self-reflection on the feasibility of the mechanisms articulated in education for all. Research focusing on the education for the marginalised groups should go beyond the indigenous people to include less apparent groups and the peripatetic. This disaggregation is crucial as it is imperative to include all marginalized groups, irrespective of their numerical representation. Being enumerated is the initial stage towards receiving assistance from marginalization. The framework facilitated our evaluation of the processes and identification of several stakeholders, such as teachers and administrators, who are not just motivated by government initiatives to promote integration in schools.

Methodology:

This study was conducted in the West Mamprusi Municipal in the northeast region of Ghana in two phases and the objects for the study were, children (students) of nomads in school and dropped out of school, their parents, and families of nomads who have children of school going age and teachers in schools where children of nomadic pastoral children attend. The first phase was from February 2022 to May 2022. The researcher used a snowball approach to identify children (students) of nomads' backgrounds who were in school and dropped out of school, their parents and families, as well as the schools they attended. We identified 25 students, 17 parents, and 10 schools they were attending. The schools they attended were public Primary and

Junior High schools. We also identified 7 dropped out students and their families as well as the schools they were attending.

To gather data from the respondents, we used semi-structured interview guides to conduct interviews with the students, their parents/families, and teachers. In the first phase, we were able to conduct interviews with 20 students (13 males and 7 females), 10 parents/families, and 7 teachers (5 males and 2 females). We also made observations in the classroom seating arrangement, teaching methods, and outside-class interaction with their teachers and colleagues, as well as their level of confidence and assertiveness. At their homes, we observed and asked questions regarding the number of children in a room, the home settings, and the household daily chores. In the schools, we inspected attendance registers and checked school records for their performance. We picked the telephone numbers of all those we interviewed and made follow-up calls on issues we did not clearly understand.

After analyzing the data, we realized that there were gaps we needed to follow up to fill, collect more details, and clarify issues. This necessitated the second phase. The second phase lasted for only two months, from 14th October to 12th December 2022. Unlike the first phase, this phase coincided with the rainy season. Nomadic activities vary from each season. We made some clarifications following our previous interviews and identified and interviewed an additional 6 students (4 males and 2 females), 8 parents/families, and 5 teachers (3 males and 2 females). We also did school and home-level observations.

As indicated earlier, the methods of data collection included semi-structured interviews. The number of interviews was established by determining the point of saturation associated with each participant. In all, the data collection took six months in two phases.

At the end of the study, we had 26 (17 male and 9 female students) fully interviewed. Out of this figure, 9 (3 male and 6 female students) were dropped out of school. The study also covered 18

parents/families. Out of this, 7 had their children dropped out of school. Finally, the study covered 12 teachers (8 males and 4 females). The schools, they attended were 10 in number and were all public schools (7 primary and 3 Junior High schools). The two senior high schools were semi-boarding, one of them was in a boarding house, while the other one was a day student. Analysis of the responses from the interviews was done using the conceptual framework variables. All interviews were taped recorded with the explicit consent of the participants and thereafter transcribed. This contributed to the assurance of data quality. All recorded interviews were promptly transcribed. Initial codes were generated to associate certain queries with crucial literature and ideas, thus, establishing their significance. Semantic codes conveying comparable meanings and concepts were consolidated.

5. Findings:
5.1 Availability of schools to nomadic children:

In the study area, nearly 95% of settlements with a population of 500 and above have basic schools.

This ensures that children between the ages of 6 years do not trek more than two km to access primary education. In terms of availability, there are enough basic schools in the region. Yidana, the northeast regional Public Relation Officer explained that:

Schools are located within a reasonable distance throughout the region for all students of schooling age to attend without stress. In communities whose populations cannot support schools, the government has established wing schools or if two or more communities are closer to each other within 2 km, the government put up schools in between them to engender availability to children. Nomadic children are just not interested in going to school. The boys are interested in flowing cattle, while the girls sell milk around. Some will start school and before long, they drop out.

Interviews with parents of the nomads revealed that their children are not interested in going to school. Those who enroll in school, often drop out at the primary school level.

Table 1: Public Schools in the North-East Region

Name of Districts	Basic Schools		Basic Total	Second Cycle		SHS/TVET Total
	Primary	JHS		SHS	TVET	
West Mamprusi	82	57	**139**	4	1	**5**
East Mamprusi	71	28	**99**	4	1	**5**
Bunkpurugu/ Nakpanduri	74	34	**108**	4	0	**4**
Mamprugu Moaduri	34	20	**54**	1	0	**1**
Yunyoo/Nasuan	47	14	**61**	2	0	**2**
Chereponi	63	25	**88**	1	0	**1**
Total	**371**	**178**	**549**	**16**	**2**	**18**

Source: North East Regional Education Office

Qualified teachers: In the past decade, the universities and colleges in Ghana have introduced distance, sandwich, weekends, and access courses. These have revolutionized not only the teaching

sector but also empowered the human resource capacities of many institutions. Hitherto, teachers desirous of furthering their education had to either wait or take leaves of absence to enable them to

complete their course. With the introduction of these innovative programmes, most untrained teachers took the opportunity to build their capacity and become trained teachers without necessarily taking leave to further their education. To further make teaching effective and professional, the National Teaching Council (NTC)[1] introduced the Ghana Teacher Licensure Examination (GTLE), to qualify teachers as professionals to be recognized to teach in public schools. The objective of the Licensing Examination is to allow competent teachers to get a professional license and to determine if candidates satisfy the requirements of the National Teachers' Standards on professional knowledge, practice, values, and attitudes essential for effective delivery in schools. The GTLE was introduced by the government of Ghana in 2019, and legally supported by Act 778, the Education Act of 2008. However, the first teacher licensure test was held in September 2018. To be eligible to take part in the examinations, the candidate must have a Bachelor of Education Degree or a Postgraduate Diploma in Education.

With the above policies and measures in place, the Northeast Regional Education Public Relation Officer explained that all the public schools in the region are stocked with professional teachers who are capable of handling all manner of students including nomadic students and other migrant children.

Good governance in schools is quintessential to encouraging and motivating nomadic students and other migrant students to participate effectively in learning. The ability to handle nomadic children professionally is an indication of culturally responsive school leadership and pedagogy [36]. The study found that, in the classrooms, teachers try their best to be professional and culturally sensitive to the needs of nomadic students. However, outside the classroom environment, other local students unleash untold harassment, bullying, name-calling, and insults on the nomadic students, which demoralizes them from attending school. As explained by Masahudi, "I dropped out of school not because I was not good in class, but because the Mamprusi boys were molesting the Fulani. Some of the teachers from time to time would make derogatory remarks about the Fulani and our colleagues would use that to tease and mock us". This means the school environment was not completely safer for the nomadic children. Therefore, school leadership must make provisions within the school environment that accommodate the needs of all children [13].

The study found that both school authorities and Ghana Education Service Circuit Supervisors carry out regular monitoring and supervision. This focuses mainly on teacher attendance, performance, and delivery in class. They hardly focus on individual student needs and problems, including attendance and follow-ups on students who regularly absent themselves from school. Regular absenteeism is a sign of gradual withdrawal from school, which most of the Fulani children exhibit and eventually drop out. There is, therefore, a need for monitoring and evaluation to be extended to individual student needs to detect early warning signs of withdrawal. The monitoring can also be extended to cover the appropriateness of teaching and learning materials (TLMs) used in class and whether they are culturally sensitive to nomadic and other migrant students.

5.2 Accessibility of Schools to nomad children:

In Ghana, education is not restricted to only citizens. Education is accessible to all people who have an interest. Although there are 371 primary schools in the region, most nomadic families cannot still access the schools because of their settlement pattern that keeps them far away from the schools.

One of the key factors contributing to poor attendance at school or nonenrolment in schools is distance. Pastoral nomads often prefer settling on

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[1] The Education Regulatory Bodies Act 2020 (ACT 1023) mandates the National Teaching Council to oversee and make regulations for the teaching profession in Ghana. As part of the Council's regulatory responsibilities, it is required to administer examinations for licensing individuals who wish to become teachers.

the outskirts of the villages or in the bushes, where their cattle can have access to grazing fields and water without interference from vehicles, motorbikes, and human activities, as witnessed in the towns and villages. Even where they are located, their houses are distanced from each other. The Fulani informants told us that they settle apart from each other because they farm around their hats. They also need more space to keep the cattle away from their crops. They also do so to prevent their poultry and smaller ruminants from mixing with those of their neighbours.

The spatial distance or geographical locations also account for the poor attitude of Fulani children who are enrolled in school to attend regularly. For children of school-going age, meandering through the bushes and crossing streams in bushy terrains and narrow paths to access school daily, especially in the rainy season, is very tedious. Blaming distance on their failure to attend schools, one of the pastoralists, Nashiru, explained that:

I sent three of my children to school and they all dropped out. First, I sent Isaak, and he dropped out, I sent Masahudi, and he dropped out, and sent their sister, Zainab, she too dropped out. They are not interested in going to school. They started by going late to school, and sometimes they would leave for school but would not get to the school, and when I left for the bush with the cattle they came back home. I applied force, but it did not yield the desired results.

Follow-up interviews with Masahudi, the school dropout, revealed that he dropped out because the distance from their house to the school was about 3 km and it was difficult for him to cover daily. He claimed that as a child, walking to and from the school daily through the bushes was terrifying. His father did not have a bicycle or a motorbike to send him daily to school. This finding supports the study of [37] that in Ethiopia, the long distances between school and home are a barrier to the provision of and participation in primary education. Long distance exposes students, especially females, to other hazards. Masahudi further detailed that it was tough to get up in the morning to bathe with cool water in the open space, eat cool leftover food, or

go to school on an empty stomach because they could not set fire in their hats to heat water or food.

Most nomadic students, both in school and dropped out, explained that their greatest challenge was the distance from their settlements to their schools. They indicated that they do not have bicycles or any reliable means of transportation. It contributes to their frequent lateness to school. This means they frequently miss the early morning classes and sometimes examinations scheduled for the morning. According to them, it contributes to their poor performance and withdrawal from school.

Unlike in Kenya, Nigeria, Mali, Tanzania, and Ethiopia where there are mobile schools for pastoral children [38], there is no mobile primary school in Ghana. There are also no boarding primary schools in the North East region to ease the burden of children traveling long distances to access schools. This is contrary to the case of Kenya where are low-cost boarding primary schools for monadic children [39]. In Kenya again, studies show that Mobile schools allow children to stay at home to carry on with their domestic chores and at the same time get access to education. The challenge of mobile schools lies in their inherent difficulty in terms of staffing, management, and monitoring. However, the dispersion of households can lead to the movement of students within and outside the educational system, which can have adverse effects on a classroom-based teaching approach that relies on consistent attendance levels. Practically, the majority of mobile schools do not cater to households with relatively high mobility [40]. Studies conducted by the Kenya Ministry of Education, Science, and Technology (MOESTK) in 2008, revealed that boarding and mobile schools, and the fixed schools for classes, have failed to achieve the intended result. Notwithstanding the significant allocation of resources towards infrastructure and teachers, only around one-third of boys in pastoral districts are enrolled, while the gross enrollment statistics for girls are halved [41].

Safety issues- friendship and interactions with other students are limited. On the blind side of the school authorities, nomadic students face serious

challenges from their indigenous student colleagues. The nomadic students indicated that they often feel lonely in school because their numbers are very negligible to form associations. As explained by Sule, a school dropped out:

Sometimes the big boys would pretend to be nice to you to take advantage of you and swindle your money, pens, erasers, and books. I was the only Fulani boy in the whole school. I had no option but to associate myself with the Mamprusi boys. One of the big boys, Fuseini, used to take my money away from me.

The above experience of Sule explains the level of freedom and safety nomadic students are exposed to in the schools. Issues of stereotyping and bullying frequently run through the responses of the nomadic students, both in school and dropped out. At their level, nomadic students suffer emotional and psychological abuse at the hands of their indigenous colleagues. They do not feel at home in school and may find it hard to concentrate and learn.

5.3 Acceptability of the school environment:

For most nomadic children, the school environment was their first contact with the world outside their immediate families. That was the beginning of their secondary socialization process. The school environment was not only new to the nomadic children, but also, the teachers who served as their new parents, and their fellow students, who represented their brothers and sisters, were all new and terrifying to them. The fear of the unknown, griped the new entrants as they found themselves in a complete environment. Culturally sensitive leadership in school would now influence and determine whether they would stay in school or leave [36]. Unlike their families, these secondary socialization agents have different attitudes and caring. The school environment also has different rules and behavior patterns. This requires culturally responsive, not only in the pedagogy but also in the entire school leadership [36] and environment to accommodate the nomadic children.

In shape contrast to the findings of [36] in Ireland, the admission requirement for new pupils is based on the 'sibling rule' (72.7%). However, this criterion does not apply to a child who has an older sibling attending a school in the northeast region. In most of the schools in the northeast region, the study found that nomadic children did not only have their siblings in the schools but also did not have children of nomadic background in the entire school. This deprives them of the feeling at home or a home away from home, as they do not have close relatives to keep in company at school. to relatives in school. We observed that in schools where they were alone, they moved alone during break time or stayed back in class.

Another factor that creates discomfort for nomadic children in schools, especially the nomadic girls, is the non-availability or poor conditions of places of convenience (urinary and toilet facilities). This makes it very discomforting for the Fulani who have a strong moral cultural value known as '*pulaaku*'. According to [42], *pulaaku* is a moral code of behaviour or principles that govern the appropriate behaviour of the Fulani ethnic group. The notion of pulaaku can be seen as a collection of actions, behaviours, or attitudes that manifest in various aspects of life, including language, privacy, and human interactions [43]. Pulaaku, as defined by Saleh Momale, includes qualities such as shyness (*semteende*), *munyal* which denotes patience, tolerance or perseverance, self-esteem, and self-respect. Furthermore, it encompasses courage, profound compassion or affection, sagacity, and diligent effort. Therefore, every Fulani nomad is required to adhere to the principles of this comprehensive moral value [44]. One Fulani parent expressed concern that the fundamental principles of moral values and identity may be undermined if they engage with others who are not native Fulani. Hence, it is considered an integral aspect of Islamic principles, as any unwholesome attitude or behavior is subject to rejection and is taught explicitly in formal education [11].

Discrimination, according to the nomadic children, was not meted out to them by the teachers, but mostly by their colleagues, who often abuse them and call them names like 'monkeys' or 'thieves' and 'bush boys', and despise them for being

smelling with milk. Zainab, a student who dropped out explained, 'For me, the school environment was terrifying, and I felt my parents did not like me by sending me to school, I was always alone as there was no Fulani girl in the schools to interact with'.

Another factor that creates accessibility change is frequent and seasonal migration. Most nomadic families are not stationed in one place. They embark on seasonal migration in search of pasture. They often take their children of school-going age along.

5.4 Adaptability:

The Fulani, who have a firm belief in *pulaaku*, attach great importance to matters of privacy and gender segregation. The *semteende* (shyness) exhibited by the Fulani appeared to be incongruous with their experiences in educational institutions. All the elementary schools where the fieldwork was carried out were coeducational. Students occupied communal desks. In some schools, three or four pupils use a desk designated for two students. The classroom layout offered an uncomfortable environment for the female students. Furthermore, *semteende* also extends to their privacy. Obtaining permission from their teachers to go and attend nature's call causes the girls to feel uneasy. The teaching methods in the schools where the study was carried out showed a restriction in flexibility, as teachers seldom employed inclusive and interactive approaches. This result supports the conclusion of [1] about the integration of marginalised pupils in Ghanaian schools. They noted that the teaching methods used did not meet the criteria of acceptability since they were often not focused on the needs of the learners. Educators at the research schools asserted that the large class sizes hinder the ability to provide personalized attention to each student. Consequently, pupils with exceptional needs, including nomadic children, are excluded from inclusive teaching and learning activities.

Finally, the language of instruction for the lower primary is predominantly in the local language which the young nomadic students find difficult to attend. Masahudi, one of the dropout students, explained that one of the challenges he encountered in his lower primary was that the language of instruction was in Mampruli, which he did not quite understand. He could not follow the lessons and was performing badly in class. This finding corroborates that of [1] that the language deficit accounts for the repetition of class or grade retention of many migrant candidates.

5.5 Affordability:

Ghana has implemented a system of basic education that is largely free and legally supported by Article 25 of the 1992 Constitution of Ghana, which mandates the provision of free compulsory universal basic education (FCUBE). To implement the constitutional provisions, the government has implemented several measures such as providing free school uniforms, capitation grants, free exercise books, free student food upon school attendance [45], and free pupil school sandals [46]. Notwithstanding, the provision of school meals, complimentary exercise books, school uniforms, and sandals does not extend to all public schools. In his statement, Mr. Samuel, the headmaster of Wungu Primary A, emphasized that the social interventions implemented by the government lack reliability. Furthermore, the school capitation funds are consistently in arrears. Therefore, parents and pupils are unable to depend on them. Despite students not being required to pay school fees, school officials nevertheless engage in the sale of admission forms, assess admission costs, and impose Parents Association charges on all new students.

Although Ghana implements, free basic and secondary education, there are still a lot of cost elements to parents. For poor nomadic families, daily feeding, the cost of transportation to school, school uniforms, books, sandals, and even soap to regularly wash the school uniforms are challenges. This finding supports the work of [37] in Ethiopia that the low economic status of pastoralists was one of the barriers to children's participation in primary education. Similarly, [19] in conducting nomadic education needs assessment in Sokoto State, Nigeria also indicated poverty as one of the major

factors preventing nomads from attending school. These recurring expenditures coupled with the opportunity cost of educating the child and losing his service as a herd boy are not inured to the benefit of nomadic families now and in the future. One of the respondents at Nava, Afa Osman recounted that:

Pastoral nomadic work requires a lot of manpower. We need strong hands to take care of the cattle and do farming activities. The opportunity cost of sending our children to school is not only the money we spend on their education, but also we lose their services at home, and we cannot be sure whether their education will be beneficial to the family in the future. The nomadic children who tried and were sent to school in the past were not helpful. They either dropped out or ran to the cities.

5.6 Other socio-cultural factors:

The study further found that the nomadic community lacks role models and educated people who will inspire them and whom they would like to copy and wish to be like. Interviews with the nomadic students revealed that they have challenges getting support to do their homework or getting motivation or encouragement, as there are no role models in their communities. Most Fulani parents also explain that when they go to hospitals and see the doctors and the nurses, they want their children would also be like that, but they lack role models in their communities to motivate their children. He added that most of them drop out before they reach Senior High School. The findings corroborate that of Usman's [47] study, which indicates that in many arid-semi regions or nomadic pastoral communities, children desire education. However, the absence of suitable teachers, predominantly female for girls and male for boys, to serve as role models poses a significant challenge. The identification of suitable teachers to consult and motivate these children is a matter of concern.

The study further found that most nomadic girls marry early, some as early as 15 and 16 years [10]. Nomads are predominantly Muslims who believe that girls should marry immediately after attaining

puberty. As explained by Issaka, a prominent nomad in Walewale that:

Muslim girls must marry immediately after they attain puberty. If your daughter menstruates twice or thrice in your house and you don't marry her off and she fornicates, it is you the father God will punish on the day of judgment.

It is partly on this basis that nomads' girls marry early. This supports the findings of Mbaruku and Otieno [47] in Tanzania that, child marriage, initiation, and ignorance, lack of parental education are among the leading causes of nomadic students' absenteeism in schools. They feel that education will delay their marriage and they not only commit fornication but may eventually marry non-Fulani which will go against the tenets of *pulaaku*. This is exacerbated by the absence of role models in their communities to motivate them.

Finally, nomadic Fulani girls, cherish selling cow milk in the markets or hawking in towns closer to their settlement. With this, they get regular income, which they prefer to attending school. One of the girls at Wungu indicated that she dropped out because she realized schooling was a punishment. "While my friends were selling milk and *waagazi* (cheese) making money and buying nice things for themselves, I was in school suffering."

Nomads like socialization and marketplaces serve as points of convergence to meet other nomads interact with them and share information. Afa Issaka explains that it is quite normal for a Fulani to travel long distances just to meet new people or friends to share ideas and information. Through that, the young men and women get their partners. Perhaps this could explain why the girls like selling milk around and dropping out of school.

Discussions and Conclusions:

The study is the first empirical exploration of the factors hindering nomadic children's education in Ghana. It is part of wider studies that focus on farmer-herder relations in Ghana. The particular studies, with little modification, employ the 4-A's framework by [7] which highlights availability, acceptability, accessibility, and adaptability as part of the rights to education for all. The study extends

these to cover issues of affordably and other sociocultural factors to analyse the dynamics of attaining formal education by nomadic children in Ghana.

The paper found several factors facing militating against nomadic children's education. These include access to schools, acceptable and adoptable school environments, including teaching methodology and classroom arrangement, and issues of affordability. Other challenges bordered on sociocultural factors, including early marriage, trading in milk, and seasonal transhumance.

The study found limited evidence of availability as there are 549 basic schools across the region. The challenge is rather accessibility because of their settlement pattern, usually on the outskirts or in the bushes. With poor road networks, long distances from the school, and a lack of proper means of transportation, nomadic children found it difficult to regularly attend school. The effect is negative on their attendance, adaptation, integration, and performance.

The article highlights the effects of geographical location creating spatial inaccessibility. The challenge of daily commuting, through the bushes on footpaths across streams is a herculean task for small children under 10 years. It leads to their frequent absenteeism, lateness, poor performance, and poor integration into the school system. Unlike the cases in Kenya, Tanzania, Nigeria, and Ethiopia where there are mobile schools for nomadic children [15] there is none in the situation of Ghana. Elsewhere in Kenya, there are boarding schools at the primary to admit children whose parents can afford them. In the study area, there are none, even if there were boarding primary schools, the nomadic parents could not afford, due to poverty [15].

The schools are receptive to all manner of children. Admissions into schools where the fieldwork was conducted are not based on sibling criteria unlike in Ireland [36], so nomadic children were accepted without a condition. However, the stereotyping, bullying, name-calling, and intimidation from other students make the school environment unwelcoming [34]. It is difficult for nomadic children who may be alone in the schools without their siblings or children of a nomadic background. Other factors that make adaption difficult are the classroom seating arrangement (sitting in pairs), teaching not based on learner-centred, and poor or lack of unary and toilet facilities makes it uncomfortable for nomadic girls with strong *pulaaku* cultural values.

Availability does not necessarily mean affordability. Basic schools are available in the study area but are not affordable to most nomadic families. Apart from the opportunity cost of losing the services of the herd boys when they are enrolled in school, nomadic parents also endure other costs of education such as books, sandals, uniforms, daily feeding, and the cost of transportation means a lot for parents who do not earn regular income.

Amid the challenges, most nomadic families want to educate their children. They feel that the future of pastoralism is blurred because of climate change and its attendant negative consequences, such as frequent farmer-herder conflict, decreasing pasture and water sources for cattle, and cattle rustling.

Recommendation:

Given the high demand for formal education, the government can introduce online classes via radio. This should be supported by mobile teachers and primaries in literacy and numeracy that could be used to explain to the children in culturally and religiously suitable ways. This will prove fundamental education to children who may otherwise face challenges in accessing formal education. The mobile teachers can meet the students once or twice a week to teach them. This can go on until they can read and write. By age 10 or 12, they would be grown enough to be transitioned into the formal schools. Depending on their ability, they can join either primary 4 or 5 and continue their education. At this age, they would be mentally and psychologically prepared to cope with the challenges in the school environment.

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