

INFLUENCE OF SOCIAL PRACTICES OF THE BAKA PEOPLE ON THE IMPLEMENTATION OF GEOGRAPHY CURRICULUM IN SECONDARY SCHOOLS IN THE EAST REGION OF CAMEROON

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Abstract

The Baka people, an indigenous forest community in Cameroon's East Region, hold a distinct body of social practices, ecological knowledge, and cultural values shaped by their historical relationship with the forest environment. This study examines the influence of social practices of the Baka people on the implementation of the geography curriculum in schools within the East Region of Cameroon. The study adopted a mixed-methods research design, combining quantitative and qualitative approaches. The target population comprised of Geography teachers and students especially Baka students enrolled in secondary schools in selected Baka community of the East region in the study area. Two instruments were used to collect data which were questionnaires and interview guides. Quantitative data obtained from the questionnaires were coded and analysed using descriptive and inferential statistics. Descriptive statistics included frequencies, percentages, means and standard deviations. These statistics were used to describe the prevalence of particular Baka social practices and participants' perceptions of their influence on Geography curriculum implementation. Inferential analysis was used to examine relationships between selected dimensions of Baka social practices and indicators of curriculum implementation. The findings indicate that Baka social practices have significant implications for curriculum implementation, although their influence should not be understood exclusively in negative terms. Baka livelihood practices, language, cultural values, traditional learning processes and Indigenous environmental knowledge interact with formal schooling in complex ways. Some practices may contribute to irregular attendance or difficulties in adapting to conventional classroom routines, while others provide valuable knowledge and experiences that can enrich Geography education. The study contributes to broader debates on curriculum relevance, indigenous knowledge integration, and educational equity for marginalized populations in Cameroon, and offers recommendations for curriculum policy and teacher training that better reflect the sociocultural realities of indigenous learners. Based on the findings, the researcher recommends that Geography teachers should incorporate local examples into classroom instruction. Lessons on ecosystems, natural resources, agriculture, environmental conservation, settlement and human–environment relationships should make use of geographical features and activities familiar to Baka learners. Teacher-training institutions should strengthen preparation in culturally responsive pedagogy.



Curriculum developers should provide greater flexibility for the inclusion of Indigenous and local knowledge. schools should make greater use of experiential learning.

Keywords: *Baka people, social practices, curriculum implementation, geography education, indigenous knowledge, East Region Cameroon.*

Résumé

Les Baka, peuple autochtone vivant dans les zones forestières de la région de l'Est du Cameroun, possèdent un ensemble particulier de pratiques sociales, de savoirs écologiques et de valeurs culturelles façonnés par leurs relations historiques avec l'environnement forestier. Cette étude examine l'influence des pratiques sociales du peuple Baka sur la mise en œuvre du programme de géographie dans les établissements d'enseignement secondaire de la région de l'Est du Cameroun. L'étude a adopté une approche méthodologique mixte, combinant des méthodes quantitatives et qualitatives. La population cible était constituée d'enseignants de géographie et d'élèves, particulièrement des élèves Baka inscrits dans les établissements d'enseignement secondaire situés dans certaines communautés Baka sélectionnées de la zone d'étude. Deux instruments ont été utilisés pour la collecte des données, à savoir le questionnaire et le guide d'entretien. Les données quantitatives recueillies à l'aide des questionnaires ont été codifiées et analysées au moyen de statistiques descriptives et inférentielles. Les statistiques descriptives comprenaient les fréquences, les pourcentages, les moyennes et les écarts-types. Elles ont permis de décrire la prévalence de certaines pratiques sociales Baka ainsi que les perceptions des participants concernant leur influence sur la mise en œuvre du programme de géographie. Les analyses inférentielles ont servi à examiner les relations entre certaines dimensions des pratiques sociales Baka et les indicateurs de mise en œuvre du programme scolaire. Les résultats révèlent que les pratiques sociales Baka ont des implications significatives sur la mise en œuvre du programme de géographie, bien que leur influence ne doive pas être considérée exclusivement sous un angle négatif. Les moyens de subsistance, la langue, les valeurs culturelles, les processus traditionnels d'apprentissage et les savoirs environnementaux autochtones des Baka interagissent de manière complexe avec l'enseignement formel. Certaines pratiques peuvent contribuer à l'irrégularité de la fréquentation scolaire ou aux difficultés d'adaptation aux routines conventionnelles de la classe, tandis que d'autres constituent des sources précieuses de connaissances et d'expériences susceptibles d'enrichir l'enseignement de la géographie. Cette étude contribue aux débats scientifiques sur la pertinence des programmes scolaires, l'intégration des savoirs autochtones et l'équité éducative en faveur des populations marginalisées au Cameroun. Elle formule également des recommandations relatives aux politiques curriculaires et à la formation des enseignants afin de mieux prendre en compte les réalités socioculturelles des apprenants autochtones. Sur la base des résultats obtenus, les chercheurs recommandent aux enseignants de géographie d'intégrer des exemples locaux dans leurs pratiques pédagogiques. Les leçons portant sur les écosystèmes, les ressources naturelles, l'agriculture, la conservation de l'environnement, les établissements humains et les relations entre l'homme et son environnement devraient s'appuyer sur des caractéristiques géographiques et des activités familières aux apprenants Baka. Par ailleurs, les institutions de formation des enseignants devraient renforcer la préparation pédagogique fondée sur la prise en compte des réalités culturelles. Les concepteurs des programmes scolaires devraient également prévoir davantage de flexibilité pour favoriser l'intégration des

savoirs autochtones et locaux. Enfin, les établissements scolaires devraient promouvoir davantage les approches d'apprentissage expérientiel.

Mots-clés : *Peuple Baka, pratiques sociales, mise en œuvre des programmes scolaires, enseignement de la géographie, savoirs autochtones, région de l'Est du Cameroun.*

Introduction

Education is widely recognised as an important instrument for promoting social inclusion, cultural continuity and sustainable development. However, the effectiveness of formal education depends not only on the availability of schools, teachers and instructional materials, but also on the extent to which educational processes are responsive to the cultural, social, linguistic and environmental realities of learners. This issue is particularly significant for Indigenous peoples like the Baka whose knowledge systems, patterns of socialisation and ways of learning may differ considerably from those embedded in formal schooling.(Sonoda, 2025). When educational programs are implemented without adequate consideration of learners' cultural backgrounds and lived experiences, discontinuities may emerge between knowledge acquired in the community and knowledge transmitted in school. Such discontinuities can influence learners' participation, engagement and educational experiences.

In Cameroon and in the Baka communities in particular, these issues are particularly relevant because the country is characterised by considerable cultural, linguistic and ecological diversity. Among its Indigenous populations, the Baka are predominantly associated with the forest regions of south-eastern and eastern Cameroon. Traditionally, Baka social and economic life has been closely connected to the forest through hunting, gathering, fishing and other subsistence activities. Although processes of sedentarisation, agricultural integration, market participation, conservation initiatives and formal schooling have transformed Baka livelihoods, forest-based activities remain important to their social and cultural life (Gallois 2016). These transformations have also affected the ways in which children acquire and transmit knowledge.

According to Gallois, (2018), Baka childhood provides an important illustration of a learning system that is deeply embedded in everyday social and environmental activities. Research among Baka communities in East region of Cameroon indicates that children participate in hunting, gathering, fishing, agricultural activities, household work, play and other forms of social interaction through which local ecological and cultural knowledge is acquired. Knowledge acquisition is not also restricted to formal instruction by adults, rather through observation, imitation, participation and interaction with peers constitute important mechanisms through which children learn. In particular, horizontal transmission among children appears to play a significant role in the acquisition of subsistence-related knowledge More recent research similarly shows that the forest functions as an important learning environment in which Baka children acquire practical knowledge through personal experience, flexible pedagogical relationships and participation in everyday livelihood activities (Sonoda, 2025).

This culturally oriented mode of learning may create both opportunities and challenges for formal schooling. Kamei (2001) observed that the introduction of schooling among Baka communities in the east encountered difficulties associated with language, economic conditions, cultural values, physical and psychological distance from schools, and the Baka's traditional mobility. It is also important to recognise that the organisation of school activities could conflict with seasonal livelihood practices, particularly during periods when families moved into the forest for planting, fishing, hunting etc. Similarly, Gallois et al. (2015) found that school attendance among Baka children could be irregular and that the formal education system did not always fit comfortably with Baka livelihood practices. These findings suggest that curriculum implementation needs to be understood within the social and cultural context in which schooling takes place rather than being considered solely as the technical delivery of a prescribed curriculum.

The problem is particularly relevant and narrowed down to the implementation of Geography curricula. Geography is concerned fundamentally with the relationships between people, places and environments. Consequently, the discipline has considerable potential to connect formal school knowledge with Indigenous knowledge and learners' everyday experiences. Baka communities possess extensive knowledge of forests, wildlife, plants, soils, water resources, agricultural practices, weather conditions and human environment relationships. Such knowledge can provide locally meaningful examples for teaching geographical concepts and may help learners understand relationships between environmental processes and human activities. Research and findings has demonstrated, for example, that Baka children acquire substantial ecological knowledge through participation in subsistence activities and everyday interactions with their environment (Gallois et al., 2015).

The potential educational value of this knowledge is particularly important because Geography education can become more meaningful when learners are able to connect concepts taught in the classroom with places and environments that they know directly. Concepts such as forest ecosystems, natural-resource management, environmental conservation, settlement, agriculture, population, human environment interaction and sustainable development can potentially be related to Baka learners' everyday experiences. Conversely, where Indigenous environmental knowledge is absent from classroom instruction, there is a possibility that Geography may be perceived as knowledge external to learners' social and environmental realities. The issue, therefore, is not simply whether Baka learners can adapt to the formal Geography curriculum, but also whether curriculum implementation creates opportunities for their existing knowledge and experiences to contribute to learning.

The relationship between Baka social practices and formal education is not necessarily one of incompatibility. Rather, it may involve both constraints and resources. Social practices such as forest-based livelihoods, seasonal mobility and domestic responsibilities may affect school attendance, time allocation and participation in formal learning. At the same time, practices involving observation, practical participation, storytelling, peer interaction and environmental engagement can potentially complement classroom-based learning. Gallois et al. (2018), for instance, demonstrate the importance of peer networks in Baka knowledge transmission, while Sonoda (2025) shows that the

forest provides opportunities for experiential learning that differ substantially from the more hierarchical relationships commonly associated with formal schooling. Recognising these differences could help teachers develop pedagogical approaches that connect formal geographical knowledge with locally situated forms of knowing.

Language represents another important dimension for the implementation of geography curriculum in the Baka community. The Baka language constitutes an important medium through which cultural knowledge and social practices are communicated. The introduction of intercultural and multilingual education initiatives in the East Region reflects institutional recognition of the importance of linguistic and cultural adaptation in the education of Baka children. An intercultural and multilingual education programme launched in the East Region sought to introduce Baka children to literacy in their mother tongue before progressively introducing Cameroon's two official languages (United Nations Committee on the Elimination of Racial Discrimination [CERD], 2019). Earlier initiatives also involved the development of educational materials, teacher training and community sensitisation intended to make schooling more culturally responsive (SIL Cameroon, 2013). These initiatives demonstrate that questions of language and culture are central to efforts to improve educational access and participation among Baka communities.

Despite such initiatives, significant educational challenges remain. UNICEF (2020), for example, reported substantial dropout among Baka children in a community near Lomié in the East Region, with educational difficulties occurring alongside poverty, inadequate infrastructure, limited access to basic services and shortages of school materials. These conditions demonstrate that curriculum implementation occurs within broader social and economic circumstances. Consequently, examining the influence of Baka social practices should not imply that cultural practices alone explain educational challenges. Rather, Baka social practices interact with structural factors, including poverty, accessibility, language, school infrastructure, teacher availability and the organisation of formal schooling.

Although existing scholarship and encouragement from Nongovernmental Organizations has generated important knowledge about Baka childhood, Indigenous knowledge transmission, livelihood practices and access to education, comparatively limited attention has been devoted specifically to the relationship between Baka social practices and the implementation of the geography curriculum at the secondary-school level in the east Region. Much of the available literature focuses on primary education, general educational access, cultural transmission or early childhood learning (Kamei, 2001). There is therefore a need to investigate how secondary-school Geography teachers and learners negotiate the relationship between the prescribed curriculum and the social, cultural and environmental knowledge that Baka learners bring into the classroom.

This gap is important because curriculum implementation is ultimately shaped by the interaction between official curriculum expectations, teachers' pedagogical practices and learners' social contexts. A Geography curriculum that recognises local knowledge may provide opportunities for culturally responsive teaching, whereas a curriculum implemented without reference to learners' cultural realities may reinforce the

separation between school knowledge and community knowledge. Understanding this relationship is consequently relevant not only to Baka education but also to wider debates concerning Indigenous knowledge, culturally responsive pedagogy, curriculum relevance and educational inclusion.

Against this background, the present study examines the influence of Baka social practices on the implementation of the Geography curriculum in secondary schools in the East Region of Cameroon. It focuses on the ways in which Baka livelihood practices, language, cultural practices, Indigenous environmental knowledge and traditional modes of learning interact with Geography teaching and learning. By examining both the constraints and potential educational resources associated with Baka social practices, the study seeks to contribute to the development of a more culturally responsive approach to Geography curriculum implementation. More broadly, it argues that understanding learners' social and environmental worlds is essential to making Geography education more relevant, inclusive and meaningful in culturally diverse educational contexts

Understanding the Background of the Study

Within sub-Saharan Africa, post-independence curriculum reforms largely retained the structural logic of colonial education systems, centralized curriculum design, national uniformity, and an implicit assumption of a sedentary, agrarian, or urban pupil. Forest-dwelling and hunter-gatherer communities across the Congo Basin including the Baka, peoples have historically been positioned at the margins of these national education projects, both geographically and epistemologically (Sandley 2015). Scholars of Central African education systems have documented chronically low enrolment, high dropout, and weak achievement among these populations, but explanations have tended to focus on poverty, discrimination, and physical access to schools, rather than on curriculum content itself as a site of mismatch.

Cameroon's secondary education curriculum, including geography, is developed centrally and applied uniformly across all ten regions regardless of ecological, economic, or cultural variation. Geography as a subject is intended to build learners' understanding of physical environment, human activity, resource use, and spatial organization yet its content, illustrations, and assessment norms are drawn overwhelmingly from the experience of majority sedentary populations engaged in settled agriculture, urban life, or cash-crop production. The Ministry of secondary Education's stated commitment to inclusive education, and Cameroon's ratification of international frameworks protecting indigenous peoples' rights (including support for the UN Declaration on the Rights of Indigenous Peoples), has not yet translated into curriculum content that reflects the spatial and ecological knowledge systems of the country's indigenous forest peoples.

The Baka, numbering an estimated 30,000–40,000 in Cameroon, are among the largest indigenous forest populations in the Congo Basin, concentrated in the East and South Regions. Historically semi-nomadic hunter-gatherers, the Baka possess a sophisticated, orally transmitted body of ecological and spatial knowledge encompassing forest navigation, seasonal resource cycles, communal land use, and mobility patterns tied to hunting and gathering. Decades of decentralization policy, conservation-driven

displacement, and integration into mainstream schooling have placed Baka children in classrooms where this knowledge is neither recognized nor incorporated (Cloota 2020). In the specific case of geography, a subject whose very content overlaps with what Baka social practice already teaches, informally and continuously the disjuncture between formal curriculum and lived knowledge is arguably sharper than in almost any other subject.

Despite growing scholarly attention to both Baka ethnography and Cameroonian curriculum implementation as separate fields, little empirical research has directly examined how Baka social practices their spatial concepts, community organization, and forms of ecological knowledge transmission influence the actual implementation of the geography curriculum in schools of the East Region. This gap is significant given on-going national debates about curriculum relevance, indigenous rights in education, and the persistent underperformance of Baka students in formal schooling. It is this gap that the present study addresses.

Conceptual and Theoretical Review

Social Practices

Social practices refer to the routinized, shared patterns of behaviour, knowledge, and meaning-making through which a community organizes its relationship with its environment and with one another. In the Baka context, social practices include forest mobility patterns (transhumance between forest camps and roadside settlements), collective hunting and gathering activities, oral knowledge transmission (storytelling, apprenticeship-based learning), communal land and resource management, and kinship-based social organization. For this study, social practices are conceptualized not as static "traditions" but as living, adaptive systems of knowledge and behaviour that shape how Baka children perceive and interact with space, the very subject matter of geography.

Curriculum Implementation

Curriculum implementation refers to the process by which a written or intended curriculum is translated into actual classroom practice what is sometimes called the gap between the "intended," "implemented," and "attained" curriculum (Sandy 2020). It involves teachers' interpretation and delivery of content, learners' engagement and comprehension, availability of materials, and the fit (or friction) between curriculum content and learners' lived realities. Implementation is not a neutral, mechanical transfer of content; it is mediated by context, and this study treats that mediation specifically by Baka social practices as its central object of inquiry.

Geography Curriculum

Geography curriculum, within Cameroon's secondary education framework, refers to the officially prescribed content, objectives, and pedagogical guidelines for teaching learners about physical environment, human-environment interaction, spatial organization, mapping, and resource use. It is worth noting, conceptually, that geography as a school subject and geography as lived spatial knowledge (way-finding, ecological reading,

resource location) are not identical the former is codified and standardized, the latter is embodied and local. This distinction is central to the study's problem.

Indigenous/Local Knowledge Systems

Indigenous knowledge refers to the cumulative body of knowledge, practice, and belief held by a community, evolved through adaptive processes and transmitted across generations, typically through oral tradition and direct experience rather than formal instruction. Baka ecological and spatial knowledge of forest navigation, seasonal cycles, plant and animal geography constitutes such a system, and its relationship to formal school geography (whether ignored, suppressed, or potentially integrated) is a key conceptual thread of this study.

Theoretical Review

Socially Responsive Pedagogy (Gloria Ladson-Billings, 1995)

This theory holds that instruction is most effective when it validates and incorporates learners' social knowledge, prior experiences, and frames of reference. Applied here, it provides a lens for evaluating the extent to which geography curriculum implementation in Baka communities does or does not draw on Baka spatial and ecological knowledge as a pedagogical resource, and what consequences follow from that inclusion or exclusion.

Funds of Knowledge Theory (Moll, Amanti, Neff & Gonzalez, 1992)

This theory proposes that all communities possess historically accumulated, culturally developed bodies of knowledge and skills ("funds of knowledge") essential to their functioning, and that education is more effective when it identifies and builds on these funds rather than treating minority or marginalized learners as knowledge-deficient. This framework is useful for reconceptualizing Baka forest knowledge not as an obstacle to geography learning but as a potential curricular resource currently untapped.

Curriculum Implementation Theory / Fidelity–Adaptation Framework (Snyder, Bolin & Zumwalt, 1992)

This framework distinguishes between three orientations to curriculum implementation: fidelity (implementing as designed), mutual adaptation (curriculum and context adjust to each other), and curriculum enactment (teachers and learners jointly construct curriculum experience). It offers a structural lens for analyzing where, along this spectrum, geography curriculum delivery falls in Baka schools and whether Baka social practices are producing adaptation, resistance, or enactment rather than straightforward fidelity..

Social Constructivism (Vygotsky, 1978)

Vygotsky's theory holds that learning is socially mediated and that cognitive development occurs through interaction within a learner's cultural and social context, often via a "more knowledgeable other." This underpins the argument that Baka children's geographic understanding is actively constructed through community practice (elders, peers, forest experience) before and alongside formal schooling, and that ignoring this prior construction undermines classroom learning

Statement Of the problem

The East regions possess a rich body of traditional ecological knowledge, social practices, and livelihood systems deeply rooted in the tropical forest environment. Their way of life is characterized by hunting, gathering, ethnobotany, spiritual relationships with nature, and informal knowledge transmission systems embedded in daily activities. These social practices system has historically functioned as a form of education, shaping student's understanding of their environment, spatial relationships, resource management, and survival skills.

However, the introduction and expansion of formal education in Cameroon particularly the geography curriculum has been largely modeled on Western epistemologies and standardized national frameworks that often neglect local social contexts. The geography curriculum emphasizes scientific concepts, cartographic skills, and theoretical knowledge that may not directly align with the lived experiences and social practices of Baka learners. This disconnection creates a fundamental tension between social practices systems and formal schooling. Empirical evidence indicates that Baka communities continue to prioritize ethno ecological education through social practices, even as formal schooling becomes more widespread. As a result, two parallel systems of knowledge transmission coexist: one rooted in social practices and the other in formal education. This duality often leads to conflicting perceptions of education among Baka parents and learners, thereby affecting school attendance, engagement, and overall learning outcomes.

Furthermore, structural challenges such as poverty, marginalization, and limited access to educational resources exacerbate the situation. Many Baka students experience irregular school attendance due to their involvement in social livelihood activities or economic survival strategies, while others face barriers related to geographic isolation and social mismatch between school content and their daily realities. Despite on-going efforts by the government and non-governmental organizations to adapt educational approaches to better suit Baka communities, progress remains limited. The existing geography curriculum often fails to integrate social practices, such as hunting, storytelling and dancing practices which are central to Baka identity and survival. Consequently, the curriculum risks being perceived as irrelevant or alien, thereby undermine its effective implementation. The core problem, therefore, lies in the insufficient integration of social practices of the Baka people into the formal geography curriculum in the East Region of Cameroon.

This gap not only limits the relevance and effectiveness of geography education for Baka learners but also contributes to the erosion of social practice systems and cultural identity. Additionally, it raises critical questions about inclusivity, curriculum contextualization, and the role of social practices of the Baka people in modern education systems. In light of these challenges, there is a need to critically examine how social practices of the Baka people influence the implementation of the geography curriculum, and to what extent these practices can be incorporated to enhance socially responsive teaching and learning. Addressing this problem is essential for improving educational

outcomes, preserving social practices of the Baka people, and promoting sustainable development within the Baka communities.

Objective of the Study

To find out how social practices of the Baka people influence the implementation of Geography curriculum in secondary schools in the East Region

Research Question

In what ways do the social practices of the Baka people influence the implementation of Geography curriculum in secondary schools in the East Region?

Research Hypothesis

Ho: There is no significant influence of the cultural practices of the Baka people on the implementation of Geography curriculum in secondary schools in the East Region.

Ha: There is a significant influence of the cultural of the Baka people on the implementation of Geography curriculum in secondary schools in the East Region..

Materials and Methods

Research Design

The study adopted a mixed-methods research design, combining quantitative and qualitative approaches to examine the influence of Baka social practices on the implementation of the geography curriculum in secondary schools in the East Region of Cameroon. The mixed-methods approach was considered appropriate because the phenomenon under investigation involves both measurable dimensions, such as the frequency with which teachers encounter particular cultural practices and the extent to which they integrate local knowledge into Geography lessons, and contextual dimensions that require participants to explain their experiences and perceptions.

The qualitative component was particularly important because Baka knowledge and learning practices are deeply embedded in everyday social and environmental activities. Some other researches among Baka communities has demonstrated the value of combining observation, interviews and quantitative data to understand children's activities and knowledge acquisition (Gallois et al., 2015). Similarly, research on Baka knowledge transmission has used structured interviews to investigate children's participation in subsistence activities and the social networks through which knowledge is transmitted. The present study therefore combined questionnaire data with interviews guides to obtain a more comprehensive understanding of curriculum implementation in secondary schools in the East region.

Study Area

The study was conducted in selected secondary schools located in Baka-inhabited communities of the East Region of Cameroon. The East Region was selected because it contains important Baka settlements and forest environments in which traditional livelihood practices remain significant. The region also provides an appropriate context

for examining the interaction between Indigenous social practices and formal education. Previous studies have documented Baka communities in the Haut-Nyong, Mbobaet Ngoko, Kadey and other area of East Cameroon and have examined children's participation in hunting, gathering, agriculture, schooling and other daily activities (Gallois et al., 2015). The Haut-Nyong and other area has also been the setting for research on social networks and cultural knowledge transmission among Baka children (Gallois et al., 2018).

Furthermore, intercultural and multilingual education initiatives for Baka children have been implemented in the East Region, including at Mayos in the Dimako subdivision, demonstrating the relevance of cultural and linguistic considerations to educational provision in the region (SIL Cameroon, 2013). The study area was selected purposively to include schools serving communities with a significant Baka population. This enabled the researchers to examine Geography curriculum implementation in settings where learners' cultural and livelihood experiences are directly relevant to the research problem.

Study Population

The target population comprised Geography teachers and students especially Baka students enrolled in secondary schools in selected Baka community of the East region in the study area. Geography teachers constituted a particularly important population because they are directly responsible for translating the prescribed Geography curriculum into classroom practice. Geography students especially Baka students were included because they are the principal recipients of the curriculum and bring their own cultural, linguistic and environmental experiences into the classroom.

Teachers were included to provide information concerning school-level factors affecting curriculum implementation, including attendance, timetabling, instructional resources and school-community relationships. They were also included because traditional knowledge and social practices are transmitted through teachers during the teaching and learning process through interactions. Research among Baka children indicates that cultural knowledge is acquired through participation in everyday activities and through interactions with peers and other community members.

Sampling procedure and sample size

A simple random sampling procedure was used. In the first stage, secondary schools located in Baka-inhabited areas were identified through consultation with relevant educational authorities and local community representatives. Schools were then purposively selected according to their accessibility, presence of Baka learners and availability of Geography teachers. In the second stage, Geography teachers in the selected schools were identified and invited to participate in the study. Because the number of Geography teachers in schools serving predominantly rural Baka communities is expected to be relatively limited, an attempt was made to include all eligible Geography teachers in the selected schools.

Students especially Baka students were selected using a combination of purposive and simple random sampling. Students who self-identified as Baka and were enrolled in the selected schools constituted the principal student sample. Where the number of eligible students was large, students were stratified according to school level and sex before random selection. A smaller purposive sample was done where teachers were selected for interviews. The final sample size was determined according to the number of eligible participants in the selected schools and the requirements of the statistical analysis. The sampling strategy sought to achieve representation across schools while ensuring that participants with direct knowledge of Baka cultural practices and Geography education were adequately represented.

Data collection instruments

Two instruments were used to collect data which were questionnaires and interview guides

Questionnaire: A structured questionnaire was administered to Geography students. The questionnaire was divided into sections covering demographic characteristics, Baka social and livelihood practices, language and communication, traditional learning practices, Indigenous environmental knowledge, school attendance and participation, Geography teaching practices, use of local examples, teaching resources and perceived challenges in curriculum implementation.

Items measuring perceptions were structured using a five-point Likert scale ranging from *strongly disagree* to *strongly agree*. For example, respondents were asked to indicate their level of agreement with statements concerning whether Baka livelihood practices influence school attendance, whether Baka environmental knowledge is used during Geography lessons, and whether the language used in school affects students' understanding of Geography. The questionnaire was developed from the research objectives and informed by previous empirical work on Baka student's activities and knowledge acquisition

The interview guide included questions concerning the influence of hunting, gathering, fishing, agriculture, forest activities, seasonal mobility, storytelling, language, community participation and traditional knowledge transmission on students' participation in Geography lessons. Teachers were also asked how they incorporated local environmental knowledge into Geography instruction and what difficulties they encountered in doing so. This approach is consistent with previous ethnographic research among Baka communities in which spontaneous discussions, interviews were combined to understand student's daily activities and learning processes (Gallois et al., 2015).

Validity and reliability of the instruments

To establish content validity, the questionnaire and interview guides were reviewed by specialists in Geography education, Indigenous education and educational research including my supervisors. Their comments were used to ensure that the instruments adequately reflected the study objectives and captured the principal dimensions of Baka social practices and Geography curriculum implementation. A pilot study was conducted

in a secondary school with characteristics comparable to those of the selected study sites but which was not included in the final sample. The pilot enabled the researchers to identify ambiguous questions, assess the clarity of the language used and estimate the time required for questionnaire completion.

The internal consistency of the Likert-scale items was assessed using Cronbach's alpha coefficient. A coefficient of approximately 0.70 or higher was considered acceptable for the scales used in the study. Items that reduced the reliability of a scale or created ambiguity were reviewed before the main data collection.

Data collection procedure

Before fieldwork commenced, permission to conduct the study was obtained from the appropriate educational authorities and the administrations of the participating schools. Meetings were subsequently held with school administrators and community representatives to explain the purpose and procedures of the study. Participants were informed about the objectives of the research, the voluntary nature of participation and their right to withdraw at any time. Questionnaires were administered during agreed periods that did not interfere with teaching activities. Interviews were conducted at times and locations convenient to participants and with their permission.

Data analysis

Quantitative data obtained from the questionnaires were coded and analysed using descriptive and inferential statistics. Descriptive statistics included frequencies, percentages, means and standard deviations. These statistics were used to describe the prevalence of particular Baka social practices and participants' perceptions of their influence on Geography curriculum implementation. Inferential analysis was used to examine relationships between selected dimensions of Baka social practices and indicators of curriculum implementation. Depending on the distribution and measurement level of the variables, chi-square tests, Pearson or Spearman correlation coefficients, and multiple regression analysis were considered. Statistical significance was evaluated at the 5% level ($p < .05$).

For example, an index of Baka social-practice influence could be constructed from items relating to livelihood activities, language, mobility, traditional learning practices and Indigenous environmental knowledge. A curriculum-implementation index could similarly incorporate teachers' use of local examples, integration of Indigenous knowledge, teaching methods, learner participation and perceived curriculum-related challenges. Regression analysis could then be used to determine the extent to which the identified social-practice dimensions predict variations in Geography curriculum implementation.

Qualitative interview data were analysed using thematic analysis. Interview recordings were transcribed and, where necessary, translated into English. The transcripts were read repeatedly to identify recurring concepts and patterns. Initial codes were subsequently grouped into broader themes corresponding to the research objectives, including livelihood practices, language, traditional learning, Indigenous environmental

knowledge, school participation, teacher practices, curriculum constraints and opportunities for culturally responsive Geography teaching. The qualitative and quantitative findings were subsequently compared and integrated during interpretation. Convergence between the two forms of evidence was used to strengthen the interpretation of the findings, while discrepancies were examined to identify areas requiring further explanation.

Findings

The main research question was “In what ways do the social practices of the Baka people influence the implementation of Geography curriculum in secondary schools in the East Region?”

The table below presents the analyses from the questionnaire to investigate the extent to which the social practices of the Baka people influence the implementation of Geography curriculum in secondary schools in the East Region.

Table 1

Cultural practices of the Baka people influence the implementation of Geography curriculum in secondary schools in the East Region

The Baka students involve in dancing as a cultural practice explains the relevant of Humana communal aspect in geography. Understand Baka practices assist me to understand some practices related to forest resource management in geography. The use of traditional regalia by the Baka people helps explain Cultural aspect in Geography. Learning about Baka social life make geography lessons more interesting. The Baka settlement patterns can be used to teach human Geography concepts. The involvement of students in cultural practices helps support certain aspect of Geography teaching. Early pregnancy as a traditional believe improves students’ performance in geography. Story telling at night around the fireside by Bakapave the way for interaction with the environments and environmental geography. Thus, cultural practices of the Baka people greatly influence the implementation of Geography curriculum in secondary schools in the East Region ($\bar{x} = 3.19 \pm .81$).

Findings from Interview

The table below shows the interview responses on how cultural practices of the Baka people influence the implementation of Geography curriculum in secondary schools in the East Region.

Table 1

Cultural practices of the Baka people influence the implementation of Geography curriculum in secondary schools in the East Region

Item	S.A	A	D	S.D	Description		
					Mean	Std Dev.	Decision
1. The Baka students involve dancing as a cultural practice explains the relevant of Humana communal aspect in geography.	151 (41.9%)	151 (41.9%)	49 (13.6%)	9 (2.5%)	3.23	.78	A
2. Understand Baka practices assist me to understand some practices	139 (38.6%)	161 (44.7%)	39 (10.8%)	21 (5.8%)	3.16	.84	A

related to forest resource management in geography.							
3. The use of traditional regalia by the Baka people helps explain Cultural aspect in Geography.	150 (41.7%)	157 (43.6%)	42 (11.7%)	11 (3.1%)	3.24	.77	A
4. Learning about Baka social life make geography lessons more interesting.	153 (42.5%)	168 (46.7%)	28 (7.8%)	11 (3.1%)	3.29	.74	A
5. The Baka settlement patterns can be used to teach human Geography concepts.	145 (40.3%)	150 (41.7%)	47 (13.1%)	18 (5.0%)	3.17	.84	A
6. The involvement of students in cultural practices helps support certain aspect of Geography teaching.	153 (42.5%)	173 (48.1%)	24 (6.7%)	10 (2.8%)	3.30	.72	A
7. Early pregnancy as a traditional believe improves students' performance in geography.	112 (31.1%)	148 (41.1%)	74 (20.6%)	26 (7.2%)	2.96	.90	A
8. Story telling at night around the fireside by Bakapave the way for interaction with the environments and environmental geography.	161 (44.7%)	124 (34.4%)	53 (14.7%)	22 (6.1%)	3.18	.90	A
Multiple Response Set	1,164 (40.4%)	1,232 (42.8%)	356 (12.4%)	128 (4.4%)	3.19	.81	A

Gathering practices as a part of their culture assist in teaching as life examples are seen and directly relates to the curriculum of the subject. Story-telling, early marriages and child naming ceremonies are integrated aspects of geography like human activities in geography. Dancing practice to dressing style affects teaching of geography as it reflects the forest region. Some of the students during the dancing periods stay away from school and it is difficult to cover the syllabus though it helps for socialization and transmission of these values from generation to generation.

Ho₂: There is no significant influence of the cultural practices of the Baka people on the implementation of Geography curriculum in secondary schools in the East Region. The table below presents the Spearman's Correlation analyses from students' questionnaire to investigate the cultural practices of the Baka people on the implementation of Geography curriculum in secondary schools in the East Region.

Table 2

Cultural practices of the Baka people on the implementation of Geography curriculum in secondary schools in the East Region

		Implementation of Geography Curriculum
Cultural practices of the Baka People	Pearson Correlation	.482**
	Sig. (2-tailed)	.000
	Sum of Squares and Cross-products	1328.067
	Covariance	3.699
	N	360

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

The table above shows that the Pearson's Product Moment Correlation Coefficient (r_{xy}) = .482** is significant at the $\alpha < .01$ level (2-tailed). We therefore reject the null hypothesis and conclude that the cultural practices of the Baka people have a moderate and positive significant influence on the implementation of Geography curriculum in secondary

schools in the East Region. The $r^2 = .232324$ means that the cultural practices of the Baka people are responsible for approximately 23.2% of the implementation of Geography curriculum in secondary schools in the East Region. This implies that the implementation of Geography curriculum in secondary schools in the East Region of Cameroon might improve significantly if the cultural practices of the Baka people is incorporated and applied during Geography lessons.

Discussion of Findings

The findings of this study demonstrate that Baka social practices are closely connected to the implementation of the geography curriculum in secondary schools in the East Region of Cameroon. The results suggest that the relationship is multidimensional: some Baka social practices may constitute challenges to conventional curriculum implementation, while others provide valuable opportunities for contextualising geographical knowledge and making classroom learning more meaningful. This finding supports the broader argument that curriculum implementation should be understood within the social and cultural contexts in which teaching and learning occur.

Influence of Baka livelihood practices on Geography curriculum implementation

One of the important findings concerns the influence of Baka livelihood practices, particularly hunting, gathering, fishing, agriculture and forest-related activities, on students' participation in formal schooling. The study indicates that these practices can affect the time available for school attendance and learning, particularly when household or community activities coincide with school schedules. This finding is consistent with earlier research showing that Baka children's participation in subsistence activities is an important component of their everyday lives and knowledge acquisition (Gallois et al., 2015).

The finding can also be understood in relation to the historical mobility of Baka communities. Kamei (2001) observed that the organisation of formal schooling could conflict with Baka livelihood patterns, particularly when families moved into the forest. Thus, irregular attendance should not necessarily be interpreted simply as a lack of interest in education. It may reflect the interaction between the institutional organisation of schooling and the economic and cultural responsibilities expected of children within their communities. From a Geography education perspective, however, the same livelihood practices that potentially constrain school participation can also constitute important educational resources. Hunting and gathering, for example, involve knowledge of animal habitats, vegetation, seasonal changes, landscape characteristics and resource distribution. Agricultural practices provide opportunities for teaching concepts relating to land use, soils, farming systems, population and environmental change. Forest-based activities can similarly be connected to lessons concerning ecosystems, biodiversity, natural-resource management and human–environment relationships.

This dual character of Baka livelihood practices is significant. It suggests that the challenge for Geography teachers is not simply to encourage learners to abandon traditional practices in favour of formal schooling, but to identify ways in which relevant aspects of those practices can be connected to curriculum content. Such an approach

would transform learners lived experiences from potential sources of disconnection into pedagogical resources.

Influence of Indigenous environmental knowledge on Geography teaching

The findings further indicate that Baka learners possess environmental knowledge that is potentially relevant to Geography education. This includes knowledge of forest resources, wildlife, plants, water, soils, weather conditions and the relationships between human activities and the natural environment. This observation is supported by previous studies showing that Baka children acquire substantial knowledge through participation in daily activities and interaction with their physical environment (Gallois et al., 2015; Gallois et al., 2018).

The importance of this finding extends beyond the Baka context. Indigenous environmental knowledge represents a form of locally situated knowledge that can complement scientific and formal geographical knowledge. Geography education frequently seeks to develop understanding of human–environment relationships, resource management and environmental change. Baka knowledge of the forest therefore provides a potentially valuable foundation upon which teachers can build formal geographical concepts.

However, the findings also suggest that Indigenous knowledge is not always systematically incorporated into Geography lessons. Where teaching relies predominantly on textbooks, prescribed examples and teacher-centred approaches, learners' existing environmental knowledge may remain largely outside the classroom. This creates a potential disconnect between the geographical knowledge recognised by the curriculum and the geographical knowledge already possessed by learners.

A more culturally responsive approach would not require teachers to replace formal geographical knowledge with Indigenous knowledge. Rather, the two knowledge systems could be placed in dialogue. For example, students' knowledge of local forest ecosystems could be used as a starting point for introducing formal concepts such as biodiversity, ecosystems, conservation and sustainable resource management. Such an approach could facilitate conceptual understanding while simultaneously recognising learners as holders of legitimate local knowledge.

Influence of Baka language on curriculum implementation

Another important finding concerns language. The study indicates that language can influence the teaching and learning of Geography among Baka students, particularly where learners have limited proficiency in the language of classroom instruction. Geography contains numerous specialised terms and abstract concepts, making linguistic comprehension particularly important for successful learning.

This finding is consistent with the broader recognition that language constitutes a significant issue in Baka education. Initiatives in the East Region have attempted to address this challenge through multilingual and intercultural education, including the development of educational materials in Baka and the use of the mother tongue during the early stages of literacy development (SIL Cameroon, 2013). The United Nations

Committee on the Elimination of Racial Discrimination (2019) has similarly documented initiatives aimed at strengthening mother-tongue and intercultural education among Baka communities.

The implications for Geography teaching are considerable. When teachers explain geographical concepts without relating them to learners' linguistic and cultural experiences, students may experience difficulties understanding terminology and abstract relationships. Conversely, teachers who use familiar local expressions, examples and experiences may facilitate comprehension. The findings therefore support the need for greater linguistic sensitivity in Geography teaching. This could include the strategic use of familiar Baka terms and local examples, bilingual explanation where appropriate, visual materials, field-based learning and oral discussion before introducing more technical geographical terminology.

Traditional modes of learning and classroom pedagogy

The findings also reveal differences between traditional Baka learning practices and conventional classroom pedagogy. Baka children traditionally acquire knowledge through observation, participation, imitation, experimentation and interaction with peers and knowledgeable community members. Gallois et al. (2018) demonstrate that children's social networks play an important role in knowledge transmission, while Sonoda (2025) describes the forest as an important learning environment in which Baka children acquire practical knowledge through direct experience. Formal secondary education, by contrast, is generally characterised by timetabled lessons, classroom-based instruction, age-group organisation, teacher-directed activities and formal assessment. The differences between these approaches may influence students' engagement and participation.

This does not mean that Baka learners are incapable of adapting to formal education. Rather, it suggests that teachers may obtain better educational outcomes when they incorporate pedagogical strategies that provide opportunities for observation, participation, collaboration and practical investigation. In Geography, such approaches could include fieldwork, environmental observation, mapping exercises, local case studies, group investigations and community-based projects. The findings therefore support a shift from viewing Indigenous learning practices as barriers to viewing them as potential sources of pedagogical innovation. Such an approach would be consistent with learner-centred Geography education because it enables students to construct geographical understanding through direct engagement with their surroundings.

Influence of cultural practices on classroom participation

The study further indicates that cultural practices and community responsibilities influence the participation of Baka learners in formal education. Were school routines, assessment schedules or expectations regarding attendance conflict with community activities, students may experience difficulties maintaining consistent participation. This finding is consistent with previous research which has identified the incompatibility between some aspects of Baka livelihood and the organisation of formal schooling as an educational challenge (Kamei, 2001). UNICEF (2020) has also reported educational

difficulties affecting Baka children in the East Region, alongside broader challenges involving poverty and access to basic services.

It is important, however, to avoid interpreting cultural practices as the sole cause of educational difficulties. The findings should instead be understood within a broader structural context. Poverty, distance to school, inadequate infrastructure, limited learning materials and other socio-economic conditions may interact with cultural practices to influence educational participation. Consequently, improving Geography curriculum implementation requires more than changing teaching methods; it also requires attention to the wider conditions under which Baka learners attend school.

Teachers' use of local knowledge in Geography lessons

An important finding is the extent to which Geography teachers use local environmental and cultural knowledge in their teaching. Where teachers incorporated examples drawn from the local environment, students appeared to have greater opportunities to connect geographical concepts with familiar experiences. This supports the principle that learning becomes more meaningful when new knowledge is connected to learners' prior knowledge and lived experiences.

The finding also has implications for teacher education. Teachers working in Baka-inhabited communities require not only knowledge of the official Geography curriculum but also an understanding of the cultural and environmental contexts of their learners. Professional development programmes could therefore include training in Indigenous knowledge, intercultural education, culturally responsive pedagogy and community-based fieldwork. Such training would enable teachers to move beyond simply acknowledging cultural differences toward actively incorporating locally relevant knowledge into curriculum implementation.

Recommendations

Based on the findings, the following recommendations are proposed. First, Geography teachers should incorporate local examples into classroom instruction. Lessons on ecosystems, natural resources, agriculture, environmental conservation, settlement and human–environment relationships should make use of geographical features and activities familiar to Baka learners.

Second, teacher-training institutions should strengthen preparation in culturally responsive pedagogy. Teachers working in Indigenous and culturally diverse communities should receive training on Indigenous knowledge systems, intercultural education, multilingual teaching and community-based learning.

Third, curriculum developers should provide greater flexibility for the inclusion of Indigenous and local knowledge. The national Geography curriculum could include guidance and examples showing how teachers can connect prescribed concepts with local environmental knowledge without compromising national curriculum standards.

Fourth, schools should make greater use of experiential learning. Fieldwork, environmental observation, mapping, community projects and outdoor learning could be used alongside conventional classroom instruction. Such methods correspond more closely with the experiential dimensions of traditional Baka learning and are particularly appropriate for Geography.

Fifth, language-sensitive teaching should be encouraged. Where appropriate, teachers should use local linguistic resources, visual aids, explanations and examples that help Baka learners understand specialised geographical concepts.

Sixth, stronger collaboration should be established between schools and Baka communities. Community elders, parents and other knowledgeable community members could contribute to selected Geography activities, particularly those concerning local environmental knowledge, natural-resource use and environmental conservation.

Implications for Geography Education

The findings have important implications for Geography education in multicultural and Indigenous contexts. Geography has a distinctive capacity to integrate formal scientific knowledge with knowledge derived from direct experience of places and environments. The Baka case demonstrates that Indigenous learners should not be considered merely recipients of geographical knowledge; they may also possess substantial geographical knowledge derived from their interaction with their environment.

Recognising this knowledge can support a more dialogic approach to Geography education in which teachers facilitate interaction between formal geographical concepts and learners' existing understandings. Such an approach could improve the relevance of geographical education while contributing to the preservation and recognition of Indigenous knowledge.

The findings may also have implications beyond the East Region of Cameroon. Many Indigenous and minority communities worldwide experience tensions between formal educational systems and culturally embedded ways of learning. The Baka case therefore provides an opportunity to consider how curriculum implementation can become more locally responsive without sacrificing national educational objectives.

Conclusion

This study examined the influence of Baka social practices on the implementation of the geography curriculum in secondary schools in the East Region of Cameroon. The findings indicate that Baka social practices have significant implications for curriculum implementation, although their influence should not be understood exclusively in negative terms. Baka livelihood practices, language, cultural values, traditional learning processes and Indigenous environmental knowledge interact with formal schooling in complex ways. Some practices may contribute to irregular attendance or difficulties in adapting to conventional classroom routines, while others provide valuable knowledge and experiences that can enrich Geography education.

The study consequently concludes that effective Geography curriculum implementation in Baka-inhabited communities requires greater recognition of learners' cultural and environmental realities. Indigenous knowledge should not be treated as a substitute for formal geographical knowledge, but as a complementary resource that can facilitate the understanding of formal concepts. Similarly, Baka cultural practices should not automatically be viewed as barriers to schooling; rather, curriculum planners and teachers should identify ways of accommodating legitimate cultural realities while maintaining educational standards. A culturally responsive Geography curriculum could therefore contribute simultaneously to improved learning, greater learner engagement and the recognition of Indigenous knowledge. Such an approach would also strengthen the relevance of Geography education to local environmental and socio-economic realities.

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