

THE EFFECTS OF THE EVICTION OF THE BATWA FROM THEIR INDIGENOUS FOREST HABITAT ON THEIR INDIGENOUS EDUCATION SYSTEM

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ABSTRACT. The main objective of this article is to identify Batwa Indigenous education pedagogy and examine how it was affected by the relocation of the Batwa from their forest habitat to the dominant Bakiga and Bafumbira societies. Using Indigenous research methodology and a relational sampling method, we recruited 240 participants, including elders, parents, and pupils from the Kisoro and Rubanda districts of Uganda. Data were collected using talking circles, and analysed using the thematic approach with the Atlas-ti qualitative software package. The participants identified the importance of their oral tradition, with a focus on storytelling, art, artifacts, songs, and dance as the main pedagogies for the transmission of Batwa customs and culture. The participants also reported that these methods of transmitting customs, culture, knowledge, and skills can no longer be effectively used to educate Batwa children in their displaced context. This suggests that the relocation of the Batwa from their forest habitat disrupted the crucial conditions that facilitated their cultural education, making it untenable in their current context. To bolster the preservation of Batwa customs and culture, we recommend the integration of Batwa Indigenous pedagogies and the creation of minimal conditions for their application in the formal education of Batwa children.

Keywords: Batwa pedagogy, customs and culture, language, Indigenous education, relocation

1. POSITIONALITY STATEMENT

Associate Professor Francis Adyanga Akena is an African scholar from the Acholi Indigenous community of northern Uganda. He earned his PhD in Education from the University of Toronto in 2014, with his doctoral dissertation focusing on the integration of African Indigenous Knowledge (IK) in Uganda's universities. His academic interests center on the preservation, validation and integration of Indigenous knowledge systems within formal education. Since 2020, he has engaged in collaborative research with the Batwa people of Uganda, working respectfully with Batwa children, parents and elders to better understand their educational needs and perspectives. His relationship with the Batwa community is grounded

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in ethical, research-based partnership, with a commitment to amplifying their voices and ensuring cultural sensitivity. Currently serving as Dean of the Faculty of Education at Kabale University, Professor Akena is dedicated to advancing inclusive and accessible education. His vision is to make formal education not only attainable but also culturally relevant for marginalized communities, particularly the Batwa people of Uganda.

Professor Natal Ayiga is a population scientist with a PhD in Population Studies and a Masters degree in Demography. Natal belong to the Madi indigenous community of Northern Uganda. Starting in 2020, Natal has worked with the Batwa Indigenous community of Uganda, who were forcefully displaced from their forest habitat. The displacement destroyed the livelihood system of the Batwa and seriously threatened the very survival of the Batwa as a cultural entity by impeding the transmission of traditional knowledge systems from the older to the younger generation. His research aimed to identify and analyse mechanisms for integrating Batwa indigenous learning systems in the formal education framework as a strategy for cultural preservation and empowerment. This study reflects the broader position on building safeguards to protect and preserve cultural identities as well as ensure their inclusion in empowerment programs.

Prof. Sharon Carnahan is a cisgender white woman from the Midwest in the United States. As a young woman, she spent several years as a single parent on public assistance, and has used that experience to advocate for women and families for the past 40 years. As a founding member of African Families Community United in Florida, she works alongside refugees to achieve their educational goals. After six years of teacher training in Uganda, Dr. Carnahan partnered with Ugandan faculty to provide developmental support in their work with the BATWA.

2. INTRODUCTION

Globally, Indigenous peoples have struggled for recognition of their cultural identity, rights to land, spiritual practices, and education systems (Adyanga & Romm, 2016; Figueroa, 2011; Stephens et al., 2006). In this article, we define Indigenous peoples as those having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other societies now prevailing in those territories, or parts of them (Martinez Cobo, 1986, p. 29). Presently, they are marginalized groups in the societies in which they live and continue to struggle for the preservation of their identity and transmission of their cultures, social institutions, and legal systems to future generations (Martnez Cobo, 1986). Although decades of international sensitization and advocacy to embrace equity and inclusion have created spaces for minority voices, Indigenous people still experience significant discrimination and victimization, characterized by evictions from ancestral land, forced integration into dominant cultures, and cultural suppression (Ames, 2012).

Worldwide, the recognition of Indigenous peoples rights continues to attract less attention than the struggle for recognition of other minority groups such as

Lesbian, Gay, Bisexual, Transgender, Queer and other sexual orientations and gender identities (LGBTQ+), political organizations, and women. One important element is the right to Indigenous education. The failure to recognize and support the practice of an Indigenous education system, including values, skills, spirituality and language, is a violation of their fundamental rights to sustainably preserve their heritage (Thornberry, 2013). While governments have in some cases tried to provide education for Indigenous people, those efforts have seldom integrated their customs and cultures or employed Indigenous education pedagogies relevant for the transmission of those customs and cultures (May & Aikman, 2003; Paquin, 2023). This led to a campaign by Indigenous communities for autonomy in the education of their children (Feldman, 2001), which continues to the present day.

One Indigenous society in Central Africa, the Batwa, is the oldest surviving Indigenous community in the region (Holland, n.d.). The Batwa people were traditionally scattered across the borders of Uganda, Rwanda, and the Democratic Republic of the Congo (Congo-Kinshasa). In Uganda, where their population was estimated at about 6,700 (Uganda Bureau of Statistics, 2017), the Batwa live in the southwestern districts of Bundibugyo, Kisoro, and Rubanda. This region is endowed with a wide range of flora and fauna, from savannah grasslands to high-altitude wetlands and alpine vegetation, which is suitable for sustaining the traditional Batwa livelihood and economy, which depended on hunting and gathering. The regions abundant biodiversity includes the endangered mountain gorillas, making the region a major conservation area (Mukasa, 2012).

In 1991, the government of Uganda implemented a conservation project to protect the mountain gorilla. Consequently, the forested zones covering the entire traditional homeland of the Batwa were turned into a protected area, leading to the establishment of a national park and the forced eviction of the Batwa from their forest habitat. The eviction destroyed the hunting and gathering livelihood system that the Batwa had practiced for centuries and prohibited the Batwa access to the forest, meaning that they would no longer practice their culture, spirituality, and knowledge system, all of which depended on the forest.

3. THE RATIONALE FOR THE PRESENT STUDY

Indigenous education has recently emerged as an issue of great interest to scholars. It is generally agreed by many researchers that Indigenous education and indigeneity are inseparable from spaces occupied by Indigenous populations (Kankpeyeng et al., 2011; Mark & Lyons, 2010). Thus, the drastic change in lifestyle for the Batwa after they were evicted, along with their small numbers and marginalized status, has brought them close to cultural annihilation, as they lost their habitat, their way of life, and the methods for transmitting it to future generations. This is because of the continued suppression of the Batwa identity, language, art, artifacts, songs and dances, spirituality, and traditional education pedagogies. For example, Batwa children are not currently taught in the Indigenous Batwa language, Rutwa, at the initial stages of basic education, as required

by Uganda's education policies. They are taught in Rukiga and in Rufimbira, languages of the dominant Bakiga and Bafumbira, among whom the Batwa have been resettled; those languages are not appropriate for the transmission of Batwa customs and culture. In addition, Batwa children are often harassed on their way to and from school and singled out when they are there (Kokunda et al., 2023; Warrilow, 2008), which can cause them to fail to attain their educational aspirations.

It is therefore important that education, which is a right, becomes a space in which the rights of Indigenous Peoples can be reasserted. We asked the Batwa people to tell us about the current state of education in their culture and how culture was passed on to younger generations. We hypothesize that integrating Batwa Indigenous pedagogies into the formal education system can reassert some Batwa rights, encourage Batwa children to participate in formal education, and contribute to the sustainability of the Batwa identity, customs, and culture. Using an Indigenous research methodology, we examined the effects of evicting the Batwa from the forests on their Indigenous education pedagogy and the transmission of Batwa culture.

4. THEORETICAL FRAMEWORK

We used the indigenous knowledge discursive framework (IKDF), which advances the view that Indigenous people honour their elders and ancestral teachings while interacting with outside people (Adyanga, 2014; Chilisa & Tsheko, 2014). The framework promotes the creation of space in which dominant and Indigenous knowledge systems (IKS) can coexist; it examines how IKS have been theorized in different spaces and applied to conceptualize indigeneity and the search for epistemological equity through the reclamation of identity, knowledge, and politics of embodiment (Dei, 2011). The theory promotes the nurturing of local knowledge for homegrown solutions to local challenges (Adyanga & Romm, 2016; Dei, 2008).

The IKDF reinforces our grasp of ontological, epistemological, and axiological realities to describe and support Indigenous forms of knowledge systems in contrast to dominant knowledge systems. The application of the framework is significant for awakening our collective responsibilities in engendering epistemological pluralism (Ahenakew, 2014). In Uganda's formal education system, the IKDF can be used to validate the Batwa Indigenous education system by identifying Batwa pedagogies and integrating them into the formal education system.

Epistemology is the study of what knowledge is and what it means for someone to know something. It includes knowing that and knowing how, as well as knowledge embodied in a given community's practices. We define Indigenous epistemology as follows: to know something is to locate it in space and time and to consider it holistically as part of an overarching cosmic order in which individual persons, tribal communities, all other animate and inanimate things, and even knowledge itself are interrelated, as proposed by Roberts and Wills (1998, p. 45). Therefore, the use of the IKDF is essential in drawing the connection between

learning by doing in the Batwa context and using their language, customs, and culture as they interact with the dominant Bakiga and Bafumbira communities.

5. STUDY

The study used an Indigenous research methodology, which is grounded in Indigenous ontology, epistemology, and axiology (Chilisa & Tsheko, 2014) and guided by the four principles of relationship, responsibility, reciprocity, and redistribution (Harris & Wasilewski, 2004). The methodology emphasizes involving Indigenous people in the generation of knowledge by using culturally rooted approaches such as talking circles, which are distinct from but have some similarities to focus group discussions, in data collection (Brayboy et al., 2012). This method is especially suitable because it accords with the primary Batwa mode of generating and transmitting knowledge around the fire. The use of talking circles enabled the Batwa to participate in data collection and then in validating and disseminating the findings of the study to their community. Two members of the Batwa community and five non-Batwa who were fluent in Rutwa and English and were graduate students at Kabale University served as research assistants.

Participants included community elders, who are the leaders and custodians of Batwa culture, parents, and school pupils; participants were recruited and selected using the Indigenous relational sampling method, which uses existing relationships and mutual trust as the basis of inclusion (Adyanga & Romm, 2016; Kovach, 2021), enabling participants to recruit other people within their networks, thereby fostering a broader community involvement and enhancing participant ownership of the study. This approach is similar but not identical to snowball sampling.

Once participants were recruited, talking circles were organized in collaboration with the community leaders. The talking circles for community elders and parents were organized in culturally appropriate settings, and those for school children were held on school premises to ensure the learners neutrality and safety. In all cases, the proceedings were moderated by the research assistants using Rutwa, and the data collected were audio recorded to prevent loss of data. The recorded data were transcribed, translated from Rutwa to English, and analyzed thematically using the constant comparative method (Charmaz, 2014; Leech & Onwuegbuzie, 2007) in the Atlas-ti software package.

6. NARRATIVE THEMATIC AREAS

6.1. Oral Traditions. In all Indigenous societies, knowledge was transmitted orally. Storytelling, art, artifacts, songs and dance were the dominant oral methods of transmitting historical knowledge, customs, cultural values, and spiritual beliefs. They were also used to pinpoint an individual's place and connect them to their society. Oral traditions were also used to record important events in Indigenous societies.

Storytelling by elders or parents was identified as one of the most important oral methods of transmitting knowledge to younger members of the Batwa society

in areas like Batwa customs, accepted behaviour, and the skills needed to perform everyday tasks in Batwa culture. From the perspectives of the elders and parents, storytelling was used to pass to younger generations both sacred and secular knowledge systems and was carried out by the patriarch or the elders in homesteads that usually comprised a network of related families settled in a common space. These elders could be regarded as encyclopedias in their communities or homesteads, as one male elder from Kabana, Kisoro district noted:

Stories were told by elders who are the custodians of Batwa customs and culture. They are the ones who know the whole history of the Batwa and were the link between the new and the old.

We also found that, as observed in other Indigenous societies, storytelling takes place in the evenings and usually around a fire, which serves as a sort of classroom for Batwa children. Storytelling addresses the importance of the forest habitat holistically (humans, fauna, and flora), spiritual practices, and the myths that shape the main dimensions of Batwa life. Below are some statements that illustrate storytelling as key to Batwa pedagogy:

We all learned about our past, our ancestors, and their way of life through stories told to us by our elders. (Male elder, Rukyeri, Kisoro district)

When we were young, our parents would tell us about events that took place a long time ago, our spiritual practices and places, including how we were created by God, who gave us the forest in the form of stories. (Female elder, Rwamahano, Rubanda district)

Other important forms of the oral tradition through which knowledge and skills were transmitted include art, artifacts made by the Batwa, songs, and dance. These taught Batwa children about their past and prepared them for adult responsibilities:

Songs and dance constituted [not only] important learning but also entertainment for the Batwa. For example, every successful hunting expedition was celebrated by songs that gave praise to the hunters and different dances by men and women. (Female elder, Kabana village, Kisoro district)

For the Batwa, songs and dancing are not only forms of identity but are also medicines (therapeutic), spiritual expressions, and hope for a better tomorrow. (Male elder, Rwamahana village, Rubanda district)

6.2. Experiential Learning. Learning in most Indigenous societies is practical. Younger generations learn by observing and participating with adults in achieving a desired goal, a process known as apprenticeship learning or pitching in (Rogoff, 2014), in contrast to assembly line or lecture-based instruction, which is frequently used in formal schooling, including the local public schools that Batwa children attend. Parents shape the activity to fit the age of the child, giving younger boys

easier hunting tasks and repeating the activity given to them orally over and over until it is learned, a process known as scaffolding (Wood et al., 1976).

Elders and parents told us that transmitting knowledge and skills from adults to younger members of the Batwa society was done by observation and participation alongside adult members to learn the skills required for survival through a repetitive process. The study identified specific gender-based skills, such as hunting, gathering, cooking, building, and other daily activities of men and women. According to participants in the different sessions, learning by doing is crucial not only for acquiring knowledge and skills but also for modifying old knowledge to fit into the dynamic natural context of the Batwa habitat. This statement by a female elder illustrates how girls were taught to maintain menstrual hygiene:

For us as women, our parents taught us how to manage menstruation practically by using skins. They taught us how to put on skins during menstruation. We could sit on those skins while menstruating. Our parents could use local herbs called ibigaragara to clean the skins. They used other plants like sweet potatoes that they peeled, dried, and used as soap. This is how we were taught to keep clean during menstruation. (Female elder, Rukyeri, Kisoro district)

Gathering foods, medicinal plants, and everyday materials needed for making artifacts and domestic materials like mats was learned by observing and doing. Male and female youth accompanied male and female adults deep in the forest, where they were taught to identify and collect the foods and materials assigned to their gender. For example, the important skills of beekeeping, harvesting honey, and hunting were taught to males because of their importance for survival. A male parent illustrated this learning method as follows:

While in the forest, our parents would make beehives and show us how to use them to trap bees that produce honey. When I was young, my father would make the hives while I observed and later asked me to replicate them. I would then carry the hives to the assigned place to trap bees. The bees would enter the hives, stay there, and make honey inside, which would then be gathered by adults. (Male elder, Rwamahano, Rubanda district)

Another participant reported that

hunting was our occupation, and it was by this hunting that we knew that an adult male was ready for marriage. For us, we taught our children how to hit a target by striking an arrow at an animal for meat. If you fail, no meat for that day. A young boy would be given harder tasks such as catching a tricky animal to see if he would be able to get food for his family in the future. (Male elder, Kanaba, Kisoro district)

Regarding the transmission of knowledge and skills to female youth, a female parent reported that

girls also get knives and go with their mothers to the forest to collect papyrus and some leaves for baskets, mats, and other crafts. As a girl, she is not allowed to be lazy and must follow everything her mother does. She observes and does as required by her mother. Those are things I think my girl is supposed to know. (Female elder, Kanaba, Kisoro district)

Additionally, participants mentioned that learning by doing is important as it allows learners to connect what they have learned orally and by observation to actual activities. In emphasizing this method, two female participants stated the following:

In our culture, anything we teach the children, we demonstrate it practically. The teaching would also require the children to repeat the activity that was given to them orally. In this way, they learn both the conceptual and practical activity that makes them keep improving until the child becomes an adult and an expert in the activity. (Female parent, Rwamahano, Rubanda district)

We made sure that young people learned how to identify and gather food from the forest. This helped our children not to suffer from malnutrition because they would eat meat, honey, sweet potatoes, and wild vegetables and fruits gathered from the forest. (Female parent, Karengyere, Rubanda district)

6.3. Effects of Relocating the Batwa on their Education Pedagogies. Indigenous societies are experiencing significant challenges in ensuring the survival of their customs and cultures. The findings of the present study corroborate the observations of a program by the Cross-Cultural Foundation of Uganda (CCFU) in 2021 that found Indigenous cultures in Uganda are at a greater risk of disappearing because of negative stereotyping, deprivation of land as the basis and the space for transmission of customs and cultures, loss of language, and loss of cultural heritage (CCFU, 2021). Our findings suggest that the Batwa can no longer practice their Indigenous pedagogy because two of the critical elements required for its use as the embodiment of the Batwa livelihood system and ancestral worship as the basis of Batwa spirituality no longer exist in the dominant Bakiga and Bafumbira communities into which they were relocated. This risk of extinction results from a disregard of the time-tested conservation and land use traditions of the Batwa by the Eurocentric notion of conservation that led to the relocation of the Batwa from their forest habitat in 1991.

One negative effect of the forced relocation was the erosion of Batwa Indigenous knowledge transmission methods. As already discussed, the Batwa transmitted knowledge and skills to their young through an oral tradition and learning by observation and doing, in sharp contrast to the public school system and life in the dominant cultures to which they were forced to adjust.

6.4. Disruption of the Oral Tradition. Oral tradition, as an important method of teaching and learning for Batwa children, was eroded after their displacement into the dominant Bakiga and Bafumbira societies, who have a vastly different worldview from that of the Batwa. Traditionally, the Batwa lived in communities in the forest habitat where members were closely associated with and depended on each other under the leadership of elders. In their relocation contexts, the Batwa live in family entities in temporary shelters and are quite migratory because they do not own land of their own. As a result, the sense of communal living and belonging that facilitated all aspects of Batwa life, including inculcating customs and cultures, has been lost. This situation has been aggravated by the structural isolation and exclusion of the Batwa through stereotyping based on their appearance, stature, language, and poverty. The following statements illustrate the effects of the relocation on the Batwa oral tradition:

In the forest, teaching children was done by elders and parents who told them stories by the fire, which you could say was a classroom in the evenings. There would be many children listening to these stories. But now, our way of life and living conditions do not allow that. Even singing and dancing as they used to be cannot be done now because we do not live as a community. (Male elder, Rukyeri village, Kisoro district)

We no longer live together as Batwa communities as it was in the forest many years back. We are now scattered among the Bakiga, some of whom despise our culture, calling us primitive and dirty. (Female parent, Rubanda district)

Nowadays, the Batwa survive by living in temporary houses on land that belongs to non-Batwa people. We move to other places so frequently that we cannot organize as Batwa the way it was in the forest. (Male parent, Kanaba village, Kisoro district)

The changes in the Batwa livelihood system forced by their removal from the forest disrupted the natural flow of Batwa cultural life, which has affected their oral teaching pedagogy. Our findings from the talking circles show that the current livelihood system the Batwa have been forced to adopt cannot support their oral traditions and pedagogy for their customs and cultures. They have no time to concentrate on oral-based transmission because they spend all their time serving as casual workers for the dominant communities into which they were relocated. Others are living in urban or peri-urban areas where simply surviving is an enormous challenge. Additionally, the subjects, objects (flora and fauna), and places (forests, caves, and mountains) on which the oral traditions of storytelling, songs, dance, and spiritual practices were based, were left behind in the forest, to which the Batwa cannot return. Simply put, they can no longer pass their culture on to their children:

We were deprived of the hunting and gathering that provided us with an abundance of food, medicinal plants, and materials for

building shelter, and life was good. These things informed and provided the basics for teaching our children how to live well and be happy. We left those things in the forest, and we cannot get them now. We now must work for other people to live, and that is what our children will learn. (Female elder, Karengyere village, Rubanda district).

We, as a people, have always lived in the forests. Our great-grandfathers lived and hunted in that forest [pointing to a nearby forest], therefore, most of the activity and knowledge that we had were based on daily interaction with the forest. Our relationship with the forest is associated with special knowledge and practices such as animal trapping, collecting wild honey both from trees and under the ground, making fire from dry wood, building materials, and most importantly, the worship of our ancestors. Sadly, relocating to this environment has forced us to abandon most of these practices. (Male elder, Rukyeri village, Kisoro district)

6.5. The Use of Rutwa. The Rutwa language, which is the Batwa instrument of oral teaching and learning, was also despised, especially among children and in schools. The childrens discussions suggested that apart from being taught in Rukiga and Rufumbira (the languages of the dominant Bakiga and Bafumbira, respectively) at school or in English, which the Batwa children cannot use while at home to identify objects and concepts, they were also systematically prevented from using Rutwa freely at school. This has impeded the relevance and usefulness of Rutwa as a language for oral tradition for Batwa children outside the home:

We feel discriminated against at school as Batwa. The teachers teach in Rukiga and English. They despise our language and discourage us from using Rutwa. The Bakiga children despise us whenever we speak Rutwa. (Male pupil, Rwamahana village, Rubanda district)

Despite the benefits of learning multiple languages, the Batwa children are gradually abandoning Rutwa because of the stigma associated with its use. In addition, the elder and parent taking circles suggested that the mistreatment and abuse of their children if they spoke Rutwa at or on their way to or from school impeded the use of Rutwa as a primary language for learning for Batwa children. In addition, children are learning concepts and vocabulary for which there is no ready Rutwa translation. The statement below exemplifies the lamentation of these parents:

Our children have reported being verbally insulted by teachers for speaking Rutwa. Some of them have been insulted for not wearing school uniforms, while others are called dirty and not worthy of coming to school. (Male parent, Rwamahana village, Rubanda district)

In our culture, anything we teach the children, we demonstrate it practically. However, I have noticed that there is a disconnection between the things that my daughter studies at school and how she translates them into real activities when she comes home. For instance, when I ask her what they have learned, she can tell me certain things. The dilemma is that she gives the names of things in English and fails to identify them from our immediate setting. (Female parent, Karengyere village, Rubanda district)

6.6. Disruption of Experiential Learning. Apart from the forest providing space and materials, it also provided the Batwa with the basis on which knowledge and skills were honed through learning by doing, the fundamental method of learning how to live sustainably in the forest and be a useful member of a Batwa community. Education was entwined with the living environment and its abundance. However, the relocation from the forest has completely changed the context in which Batwa children can be taught their customs and cultures, making learning by doing essentially untenable. The Batwa are also rapidly losing their nature-based conservation knowledge and systems, as the custodians of this knowledge are dying off, and their lack of access to the forest and the natural resources there makes the practical transmission of knowledge and skills impossible. The statements below describe why experiential learning cannot be used to teach Batwa children their customs and cultures given their relocation to other communities:

There is no land, there is no forest. The Batwa cannot access the forest where hunting and gathering used to take place for the children to observe and practice with their parents. For example, hunting here is illegal, the plant species we use for medicines are deep in the forest, and the caves where our ancestors worshipped are in the forest. We are not allowed to go to the forest to practice these things and worship. (Male elder, Rukyeri village, Kisoro district)

What we have learned is to beg. The majority of Batwa now earn their livelihood by begging and doing casual labour in the gardens of the Bafumbira and Bakiga. In terms of our livelihoods, art, artifacts, dance, etc., there is nothing for our children to learn from. (Female parent, Rwamahana village, Rubanda district)

We cannot keep our customs and cultures and transmit them to the younger generation because our elders are dying, and we do not have access to our land in the forest. (Male elder, Kisoro district).

7. DISCUSSION OF FINDINGS

Settlement patterns are important in the sustainability of Indigenous societies. The living context provides the backbone for the sustainable transmission of Indigenous knowledge systems, including Indigenous education pedagogies. We

found that while in the forest, the Batwa settled in small, close-knit communities comprising extended families. These family units were powerfully united and depended on each other for support. This suggests that most activities, including raising children and providing their cultural education, were also communal and facilitated by the strong bonds in Batwa homesteads.

The relocation of the Batwa disregarded the importance of maintaining the kinship-based communal settlement pattern, leading to the disruption of the Batwa communal support system, which continues to impede the communal transmission of Batwa customs and culture under the guidance of their elders. A previous study confirms the communal settlement pattern and the strong support systems that promote egalitarianism in the traditional Batwa communities (Lewis, 2000), which made the previously sustainable propagation of the Batwa communities and their customs and culture possible. Reinvigorating the traditional settlement pattern of the Batwa is therefore crucial in ensuring that at least some aspects of Batwa learning systems can be saved from extinction. This requires the resettlement of the Batwa on land designated for them as compensation for the loss of their forest habitat to conservation efforts, as suggested in previous studies (Aiijshakiye, 2021; Satyal et al., 2021). Such an effort could make the Batwa self-sustaining by letting them work for themselves on their land, supporting their communal Indigenous systems, creating a sense of renewed Batwa identity and pride, and reducing the high level of poverty among the Batwa people.

Storytelling is a vital method of transmitting Indigenous knowledge, and Landrum et al. (2019) observed that it is an important pedagogical tool. Despite the paucity of knowledge of the role of storytelling as an Indigenous education pedagogy among the Batwa, we found that storytelling was used for teaching the natural link of the Batwa to their forest habitat and the hunting and gathering that was formerly at the core of their way of life. The importance of storytelling as a method of transmitting historical and spiritual knowledge has been observed in a previous study on Indigenous groups (Palacios et al., 2015). The findings also suggest that the oral tradition of the Batwa that focused on storytelling, art, songs and dance as a method of transmitting Batwa customs and culture is untenable in the current context of the Batwa settlement and livelihood system.

Prior research is consistent with the above findings and suggests that the Batwa, as an Indigenous people in Uganda, are at risk of losing their identity as their customs disappear under the influence of other dominant societies (Mukasa, 2012; Rodriguez, 2021). The risk of extinction of Indigenous groups' language and cultural practices as a result of the influence of dominant cultures and, in some cases, government policies, has been reported by other studies on other Indigenous groups in Africa (Batibo, 2020; Chebanne, 2016; Childs, 2020). It is, therefore, logical to conclude that the relocation of the Batwa from the forest into the dominant cultures of the Bafumbira and Bakiga disrupted the use of oral traditions through storytelling, artifacts, songs and dance as a key aspect of Batwa education pedagogy. It is, therefore, important that Batwa storytelling,

art, artifacts, songs and dances be integrated into the formal school systems where the Batwa children learn, to ensure that their language, customs, and culture do not become extinct.

Observation and experimentation was a major method of transmitting knowledge and skills among Indigenous societies (Cajete, 1997; Urrieta, 2015). This method of teaching and learning by doing or pitching in involves acquiring skills under the guidance of an experienced individual (Henne-Ochoa et al., 2020). Learning by doing was enshrined in the Batwa culture by using the natural forest habitat that provided the resources on which their economic and spiritual livelihood depended. Hunting and gathering required significant knowledge of the local habitat and its fauna and flora. In that regard, observation, identification, and experimentation were important methods of learning.

Previous researchers have noted that observation and continual repetition of tasks are central to Indigenous learning processes (Merculieff & Roderick, 2013) under the instruction of elders who are the repository of knowledge, skills, and wisdom. This type of learning is similar to Vygotskys scaffolding theory, in which he argued that learners would acquire better knowledge and skills by learning from more informed and experienced mentors (Van Der Stuyf, 2002; Verenikina, 2008). We found that teaching and learning among the Batwa were strongly influenced by the concept of relationality, which refers to the process of connecting with members of the community, the natural habitat where they lived, and the spiritual world. All these knowledge processes are based on observation and action. Furthermore, as the Batwa have been forced out of their ancestral habitat, the very nature of the skills necessary for survival has changed, making traditional values, skills, and spirituality less important to the younger generations.

In this regard, the relocation of the Batwa into the dominant Bafumbira and Bakiga communities disrupted the nature-based resources that provided materials that they could use in transmitting their knowledge, customs, and culture. These resources could only be found in the natural forest habitat where the Batwa lived for centuries before their sudden and forced eviction. This observation accords with the view that Indigenous ontologies and epistemologies are based on both the secular and sacred domains (Hoffman, 2013), implying that knowledge is generated and transmitted both practically and spiritually, which is consistent with Batwa Indigenous knowledge system. The findings of the present study show that the relocation of the Batwa into dominant worldviews disrupted the Indigenous forest-based construction and transmission of knowledge. The inability to re-enact the traditions of a natural forest habitat within dominant cultures shows the need to secure, at the very least, limited access for the Batwa to the natural forest to ensure that their customs and cultures remain sustainable.

8. CONCLUSION

In the present study, we have shown that the natural setting of the forest habitat of the Batwa was an essential aspect of their customs and culture. The forest environment defined the Batwa livelihood system based on hunting and

gathering food, medicinal plants, and materials for their daily activities. Over centuries of cohabiting with nature, the Batwa developed a unique symbiotic relationship with the fauna and flora in their forest habitat and established an equilibrium that assured sustainable conservation. Oral traditions characterized by storytelling, spirituality, art, artifacts, songs and dance, and experiential learning sustained the transmission of the Batwa customs and culture that conserved the fauna and flora in their natural habitat while providing them with a livelihood, ensuring mutual coexistence with nature. The Batwa prospered until they were evicted from the forest on account of the Eurocentric perspectives of conservation, to the profound disadvantage and possible extinction of the Batwa as an Indigenous society.

We were also able to show that the relocation of the Batwa from the forest was destructive and retrogressive for conservation and the sustainability of the Batwa customs and culture, as it disrupted the conditions for the sustainable existence of the Batwa identity. We recommend that urgent mechanisms be put in place to integrate Batwa Indigenous education pedagogy in the schools Batwa children attend and create a Batwa enclave in the forest that they can access, as they pose no risks to the forest fauna and flora.

9. ETHICAL CONSIDERATIONS

Studies about Indigenous people can be contentious, especially when dominant research approaches are used. Given the distinctive methodology used in this study and the fact that the Batwa Indigenous people are heavily under-researched, obtaining consent and approval for the research was essential. The study obtained ethical approval from the Kabale University Research Ethics Committee and the Uganda National Council for Science and Technology.

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