Innovating for the Anthropocene in rural Lesotho schools

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Since Western-style education was introduced to Africa in the nineteenth century, it has played a central role in producing the Anthropocene, shaping the attributes and aspirations of young people, and facilitating their incorporation into the global bioeconomy. In rural areas of the contemporary Global South, however, many young people find themselves surplus to the needs of today's global economy, but also alienated from rural life both by schooling and by an increasingly hostile climate.

In this paper, we describe the outcomes of an intervention in which 34 student teachers conducted action research in rural Lesotho schools, seeking to make education more meaningful to rural learners. While the student teachers found ways to engage learners in the curriculum, their interventions tended to reinforce the conventional role of schooling rather than offering a more transformative pathway.

Introduction

Schooling today is taking place within a time of environmental change and uncertainty. Particularly in rural Africa, where livelihoods have long had a close relationship to the natural environment, climate and biodiversity crises are shaping young people's lives and prospects in ways that must make demands on education systems. Yet schooling is not simply a passive responder to change; it is part of the (global) bioeconomic system that produces the Anthropocene. It has long been shaping people's relationships with and impacts on environments, and arguably alienating young people from nature and rural life.

It is in this context that we undertook a project in Lesotho in which 34 student teachers, supervised by serving rural teachers, conducted action research during their placements in schools in remote parts of the country. The intention was to support experimentation with ways of making education more meaningful to rural learners.

In this paper, we first elaborate on how Lesotho is incorporated into the global bioeconomic system that has produced the Anthropocene, and the ongoing role that education plays in this. We then describe the action research intervention and analyse the outcomes. We conclude that while teachers readily find ways to compensate for what they see as deficits in rural settings, they continue to understand their role as advancing the interests of young people in the long-standing but increasingly precarious migrant labour economy, rather than enabling them to engage in sustainable rural livelihoods.

Anthropocene, capitalocene, plantationocene – Lesotho in a changing world

Social scientists have developed Crutzen and Stoermer's (2000) concept of the Anthropocene to probe how human activity has come to so profoundly alter planetary systems over several centuries. Moore (2016), for instance, uses the term 'Capitalocene' to emphasise that global structural processes do not simply impact nature but are produced through the manipulation of nature by a capitalist elite. Haraway et al (2016) point to the origins of today's environmental crises in the plantations of the sixteenth century.¹ They use the term "Plantationocene" to focus attention on global movements of racialised bodies, plants and animals and new land management systems that had dramatic impacts on global physical processes.

Lesotho was certainly never part of a plantation economy, but has, for 150 years, been incorporated in similar ways into the bioeconomy that produced the Anthropocene. As with the plantation system, the movement of people and regulation of their interactions with land and livestock have supported economic relations that enriched a global economic and racial minority. The 1869 Treaty of Aliwal North established the boundaries of what became Lesotho, relinquishing most of the Basotho people's fertile land to Afrikaner settlers. The remaining largely mountainous territory was too small to sustain the population and consequently was forced to serve as a labour reserve, providing predominantly male labour for South African mines and commercial farms. Women and children cultivated the limited land and men invested in livestock as a way of maintaining their relationship to land and kin (Ansell and Dungey 2022).

In recent decades, the demand for skilled Basotho labour in South Africa has diminished. As in many parts of the global south, rural Basotho youth represent 'surplus labour' that is not required by the global economy (Ansell et al 2020). At the same time, climate change is further limiting the opportunities to generate income from the rural environment. Unreliable rainfall deters many from investing in sewing crops and frequent droughts decimate livestock. The global bioeconomic system sacrifices both nature and people where they are not immediately needed, bringing changes that make established ways of life unsustainable.

Education's role in the Anthropocene

Given the impacts of the Anthropocene on young people's lives alongside the growth in educational engagement globally, there is a clear need for education systems to respond. To consider this, it is important to recognise education as part of the global bioeconomy, not an external actor. Formal European-style schooling was introduced to Africa in part to serve the emerging socio-economic relations of the nineteenth century – producing administrative labour as well as fuelling a desire for consumption. Schooling offers visions of futures that help drive the global system, encouraging young people to seek new roles and consume different lifestyles. Alongside the development of literacy and new aspirations, researchers across Africa have charted loss of ecological knowledges and deskilling of rural children.

Lesotho's education sector has responded to this situation through interventions undertaken in the name of Education for Sustainable Development (ESD). This approach, which advocates for shifts in

¹ The plantation system initially caused a dip in atmospheric CO2 by causing a depopulation of the Americas.

curricula and teaching methods to equip young people to address environmental crises, fails to recognise the role education plays in the processes that drive the Anthropocene (Ansell and Dungey 2022). The very notion of sustainable development assumes continuity of the global system that has produced the Anthropocene. Moreover, it focuses on "the ability of future generations to meet their own needs" (Brundtland 1987) without acknowledging that, beyond the basic sustenance of human life, needs are socially produced, and education plays a key role in shaping them.

Formal schooling has existed in rural Lesotho since the nineteenth century, and since primary education was made free and compulsory in the early 21st century enrolment has become almost universal. Under the influence of international funders, a new curriculum was introduced that sought to better prepare young people for a range of possible futures, including outside the formal economic sector. This 'integrated curriculum' builds, to some extent, on concepts of ESD and an earlier environmental education project.

Yet despite the changed emphasis of the formal curriculum, young people, their parents, and their teachers continue to view schooling a primarily a preparation for life in the urban formal sector. Teachers and textbooks refer to traditional service sector careers and children express aspirations to become teachers, nurses, police officers and soldiers. The introduction of 'creativity and entrepreneurship' as a core part of the new curriculum has done little to alter this – teachers feel ill equipped to teach it and young people fail to see its relevance to their lives. By banning the wearing of herding attire (blankets and gum boots) in school, and denigrating the herding lifestyle, teachers dissociate schooling from rural livelihoods. When rural children have acquired basic literacy and recognise that they are unlikely to secure academic qualifications, they conclude that schooling has no further significance in their lives and disengage (Ansell et al 2020).

A project responding to the educational needs of rural youth

We focus in this paper on a project that responded to findings of earlier research (Ansell et al 2020) and aimed to identify ways to better prepare and support teachers in rural primary schools so that they are able to make schooling more meaningful and engaging for rural youth. A research team that included colleagues from Lesotho College of Education (LCE) and the National University of Lesotho (NUL) worked with 34 second year student teachers on the Diploma in Education (Primary) course at LCE who undertook action research projects during their teaching practice at twelve schools in the most rural districts of the country. The student teachers were supported in planning and implementing these projects by 11 graduates of the NUL B.Ed. (Primary) programme who had been trained in action research and worked at the host schools or schools nearby. Both groups attended a two-day workshop that introduced them to the project and action research. When in the field, they received visits from members of the NUL/LCE research team to discuss progress, problems and possible solutions. Both student teachers and supervising teachers wrote reports on their experiences which were analysed by the research team. The remainder of this paper draws on analysis of the reports and the field visits.

Outcomes of the project

Young people in rural Lesotho face a complex predicament. On the one hand, a future in the urban formal sector economy is elusive due to global economic change; on the other, prospects for a livelihood based on crops or livestock are compromised by climate change. How far were the action

research projects able to prepare young people to confront these challenges? Do the project reports indicate that schooling could reshape young people's relationships with their rural environments in ways that serve the young people's interests within a changing environment?

The student teachers interpreted their challenge in different ways but most of them saw their role to be making the curriculum accessible to rural learners. Some did not focus on rurality at all, but simply identified ways to engage learners better and explain concepts through interactive tasks. Preoccupied with delivering the curriculum as set out in curriculum guides, most focused on those learning outcomes that they envisaged as difficult for learners in rural settings. These were perhaps those least relevant to rural children, rather than ones that might be of particular interest or relevance.

In general, most of the student teachers thought about their rural settings in deficit terms. They identified deficits in school – lack of electricity, computers, library resources etc. But they also identified deficits in learners' homes and communities: poverty and lack of resources (such as phones, clocks, materials to take to school); parents' illiteracy and lack of commitment to education; parents' and children's limited exposure to people from different cultures, careers, advertisements, signposts, English language; and parents' traditional values and beliefs. Rather than fitting schooling to the local setting, they saw urban life as the norm, and their role as seeking to compensate for rural inadequacies and familiarise children with urban lifestyles.

Six of the projects, for instance, focused on teaching digital technologies, which was a challenge because schools lacked electricity, computers and internet connections, as well as most learners lacking any familiarity with computers outside school. Many used cardboard boxes to improvise, though some developed more sophisticated proxies including through systems based around mobile phone technologies. While it is arguably important for rural children to gain familiarity with digital technologies (and not just because their knowledge will be assessed), it indicates a concern to equip young people to participate in the urban-based economy rather than to develop their skills for rural livelihoods.

Another example was a project that sought to address the learning outcome 'recycle materials to make craft work'. This was considered difficult in a rural setting where plastic bags and bottles are reused, there are few shops and relatively little consumption of packaged goods. Learners are also unfamiliar with concept of recycling, not because it does not happen but rather because the need to reuse resources goes unquestioned. In this respect, there seems little point in teaching it. The student teacher required plastic packaging for the craft activity she planned. She herself collected crisp packets for two weeks but could not find sufficient so she asked the learners to bring sweet wrappers from home. With the few that were collected, the learners were taught how to make bracelets and hairbands. Another student teacher similarly sought to teach a class to make utensils from papier mâché. For this, she believed she required egg trays, and as rural families get their eggs directly from their own hens, she asked other teachers to bring egg trays from town when they visited.

Both examples highlight how rural children were expected to engage with environmental issues from the perspective of urban dwellers, even where these had no relation to their own lives. Very few student teachers identified any resources available in rural areas that might make schooling more relatable or meaningful in considering rural livelihoods. Almost the only exception was the use

of stones to demonstrate arithmetical operations, and these added little value. Rather than relating schooling to rural lives and resources and likely rural futures, learners were prepared for assumed urban futures.

Conclusions

This paper is not intended as a criticism of the student teachers who designed and implemented the action research projects. In general, they found imaginative and engaging ways to convey learning outcomes to rural learners. It does, however, highlight how ill-equipped they were to think about their role in relation to anything other than the conventional function of schooling. The projects they designed (as with most educational interventions) would at best serve the adverse incorporation of young people into a damaging bioeconomic system that demands migration to urban or foreign settings. At worst it would alienate them from the rural and from nature, while failing to equip them for a global economy that is adapting to the Anthropocene it produces by requiring less and less of their labour.

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