

PERSPECTIVES

LITERACY AS AGRICULTURAL DEVELOPMENT STRATEGY: THE TANZANIAN EXPERIENCE

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Abstract

This study examines Tanzania's initiatives to use functional literacy programs as a vehicle for agricultural transformation. The functional literacy programs were introduced in four pilot regions in 1968, focusing on: reading, writing, numeracy, agriculture, nutrition, national ideology, fishing, and cattle raising. They were introduced to replace traditional literacy programs which had had only a disappointing impact on improving agricultural production. Following the pilot program, a national program was implemented in 1971 and continues to the present. Although the government hoped for significant changes in traditional farming practices, this has not happened due to a combination of factors including a lack of attention to the human and material resources needed, learners' motivations, and the local conditions under which the programs operate.

Résumé

Cette étude se penche sur une série d'initiatives d'alphabétisation fonctionnelle vouées au développement agricole en Tanzanie. Les projets, introduits dans quatre régions pilotes en 1968, avaient pour objet la lecture, l'écriture, le calcul, l'agriculture, l'alimentation, l'idéologie nationale, la pêche et l'élevage du bétail. Ces activités furent conçues pour succéder aux programmes conventionnels d'alphabétisation, dont l'impact sur les pratiques agricoles était jugé insuffisant. Suite au projet pilote, un programme national fut lancé en 1971 et subsiste à ce jour. Les attentes du gouvernement, anticipant des changements marqués dans les pratiques agricoles traditionnelles, ne se concrétisèrent pas. Plusieurs facteurs peuvent être invoqués, dont le manque de ressources humaines et matérielles, la faible motivation des apprenants, et des conditions locales peu favorables.

Introduction

Tanzania has, since independence, considered agriculture to be the main engine of its economy. Agriculture constitutes the largest part of the country's Gross National Product (GNP) and is the main source of foreign exchange. Although the majority of the population is engaged in agriculture, farmers still use traditional methods of farming which the government believes limits the productivity of labour and cultivated land. In other words, the quality and quantity of agricultural production is hampered by a lack of modern farming skills.

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Immediately following independence, the government thought it was unfair to consider farmers old-fashioned simply because of their familiar farming practices; modern skills of farming were unknown to traditional African society and therefore to the majority of Tanzanian people (Nyerere, 1973). However, by the 1960s, traditional farming skills, although appropriate in the past, were considered obsolete because they could not cope with demands to increase production for world-wide consumption.

With the adoption of "Ujamaa" (the Tanzanian version of socialism) as a development strategy, modernization of agriculture became even more important because the country had limited capital resources. Ujamaa required that people live and work together in village communities to increase agricultural production and earn needed foreign currency. An increase in foreign currency was expected to lead to improvements in disposable incomes, a more rational investment of money, a better standard of living, and improved levels of sanitation and nutrition (Institute of Adult Education [IAE], 1971). In the effort of working towards agricultural transformation, functional literacy was considered a key skill. In the government's view, functional literacy would empower people as well as provide for them to improve the quality and quantity of agricultural production. In turn, this improvement in agricultural production was expected to increase circulation of foreign currency and boost the country's GNP.

To realize the objective of agricultural transformation, leaders were required to persuade and educate the rural population rather than force them to change farming methods. The country's political leadership saw part of its role, therefore, in educational terms; it wished to improve literacy and use functional literacy training as a means of bringing about adoption of modern farming skills. This necessitated government introduction of functional literacy programs to replace traditional literacy programs, which had treated literacy as an end in itself (Mushi, 1990). Traditional programs focused on the "3Rs" only (reading, writing, and numeracy skills), whereas functional literacy programs focused on the 3Rs as well as agriculture, national ideology, nutrition, fishing, and cattle raising.

Purpose of the Study and Research Methods

This study was conducted by the researcher in 1989 to investigate and analyze Tanzania's initiatives to use functional literacy as a vehicle for agricultural transformation during the 1970s and 1980s. In particular, this study investigated the manner in which the functional literacy program was conceived, formulated, and implemented. Ideally, the outcome of this analysis would be to improve an understanding of the context and constraints which influenced the functional literacy program design and development in Tanzania, and to enable adult education policy makers and planners to carry out informed modifications where necessary.

The study employed structured interviews with practising adult educators who participated in the design and implementation of the program. These included adult education officials at the Ministry of Education and Culture (MEC) and

regional adult educators. Information generated from these interviews was cross-validated through document analysis. Legislative documents such as government circulars, government policy statements, MEC and Swedish International Development Agency (SIDA) research reports, and other textual materials were analyzed to gather information on how these programs were formulated and implemented.

Major Findings and General Analysis

Program Development

Initially, the government's intention in designing the new functional literacy programs was to involve the community in identifying skills necessary to improve agricultural production (Nyerere, 1975, 1979). However, according to the report, "Adult Education and Development in Tanzania" (Johnsson, 1983), there were no proper surveys carried out to help develop the functional literacy programs. Instead, the programs were designed by a few experts who focused exclusively on agricultural concerns regarding the cash-crops that promised the greatest potential contribution to foreign exchange (J. Nindi, personal communication, January 25, 1989).

In justifying their planning approach, the MEC officials (A. Kalinjuma, personal communication, January 27, 1989) underlined that functional literacy programs were not a matter of "community choice", but were rather what was considered necessary by the Chama cha Mapinduzi Party (CCM) to achieve national development goals. Functional literacy programs, therefore, did not require participatory program planning. This point was further emphasized by Mbakile, the former assistant director of the Mwanza Literacy Centre, in his paper "Literacy and Post-Literacy Programs in Tanzania", (undated):

It is nowadays commonly advocated that program clientele should be actively involved in program planning, etc. However, our experience shows that where political decisions and priorities are of overriding importance, the implementation of these by the government does not have to wait for participatory planning. The Party resolution on the eradication of functional illiteracy required the application of approaches, techniques and methods all of which could be developed with less participatory planning than desirable. (p. 27)

The functional literacy programs were, therefore, planned in the context of a framework that made no attempt to incorporate the views of the community.

Organization and Implementation

Strategies Employed. The campaign to eradicate illiteracy was organized in four phases, starting in 1971, and initially covered some 5.2 million participants (Nindi, 1984). It was funded by international agencies such as SIDA and the United Nations Development Program (UNDP). The government directed primary schools to serve as educational centres for children in the mornings and for adults

in the afternoons. In addition to school buildings, the literacy campaign also used factories, party offices, bars, market places, and dispensaries as classrooms.

Regional and district adult education coordinators were appointed to mobilize people for literacy activities as well as to coordinate and distribute literacy materials. The coordinators were assisted by various adult education committees formed from the grassroots to the national level. The CCM Party leadership organized mass rallies and speeches to mobilize people to attend classes. Radio education programs, jazz bands, and newspapers were used to further support this campaign (Mpogolo, 1980).

Adults who failed to attend literacy classes were discussed in the adult education committees. In some centres, by-laws were introduced to ensure regular attendance; those who did not attend classes without genuine reason were fined (Mbakile, undated). This decision, however, contrasted markedly with the country's underlying philosophy of adult learning. As Nyerere (1979) originally proposed, adult learning should not be imposed, because each learner is ultimately a volunteer in the learning process. In the functional literacy campaign, however, this principle was ignored.

Instructors and Instructional Procedures. As stated in a document by IAE (1971), both primary school teachers and volunteers were required to teach in functional literacy classes. The use of an eclectic approach to teach reading, writing, and simple numeracy was considered essential, for it provided the easiest way of teaching simple sentences with functional meaning. The approach therefore started with simple, functionally meaningful sentences followed by introduction of related words and syllables. The syllables were used to generate new words, phrases, and sentences. Vocational skills were taught by materials which related to the occupation of the participants. A cotton farmer, for example, was supposed to learn better methods of cotton growing by using a primer featuring cotton-growing information.

Although primary school teachers and volunteers were required to teach functional literacy programs specifically focusing on agriculture, they did not pre-train in either adult teaching methods or agriculture. As a result, most of these teachers failed to handle the theoretical and practical aspects of the functional literacy classes. Sumra and Bwatwa (1988) in their paper "Adult Education, Literacy Training and Skill Upgrading in Tanzania" noted:

Primary school teachers have been trained to teach primary school pupils; they have had no training in teaching adults. As a result, they basically use the same methods for teaching adults as they do for teaching primary school pupils. Thus a teacher who has never been a farmer has the responsibility of teaching a farmer how to grow cotton better. (p. 268)

Clearly, the learners were placed in an awkward situation for they could not practise the "half-baked" skills imparted by literacy teachers. Their teachers were also hampered and could not apply proper assessments. As Lasway, assistant to the national director of adult education commented:

Due to the poor quality of teachers, it has often been difficult for them to provide descriptive reports to accompany the quantitative reports. It is therefore difficult to make a qualitative evaluation of the class progress. (Lasway, 1985, pp. 313-314)

The government was eager to see a rapid improvement in agriculture, but neglected to improve the quality of its instructors. This exemplified the low status accorded to adult education; adult education was seen as a non-professional job that could be left to untrained teachers as it was thought that the teaching of adults required no specialized skills.

Literacy and Instructional Resources. The government conceived of functional literacy as a necessary means of working towards agricultural transformation, and seemed to view it as a mechanism for bringing about automatic transformation in a top-down manner. However, apart from the inadequacies of the classroom, other aspects of the program, such as the recommended purchases of agricultural equipment and resources, were not well matched to the students. For example, the programs concentrated on the use of fertilizers and seeds which had to be bought from cooperative shops at prices too high for the village communities (Kweka, 1987; Mlekwa, undated), rather than manure and seeds which could be produced locally. By the mid-1980s, over ten years since the start of the campaign, only 25% of the peasant population had managed to improve agricultural production (MEC, 1986). Literacy training alone obviously did not have the power to bring about important shifts in agricultural production; it needed to be linked with other conditions and facilities to be successful.

Literacy and Local Conditions. As stated earlier, functional literacy programs were developed in a top-down fashion, designed on assumptions that the needs, motivations, personalities and interests of the village communities were known. In fact, failure to involve village communities in determining their own learning needs was one of the main impediments to literacy initiatives in the country (Carr-Hill, 1991; Kater, 1992; Mushi, 1990). In some villages, functional literacy programs did not match the villagers' agricultural concerns (A. Nyiti, personal communication, February 2, 1989). For example, in villages where the main agricultural activity was coffee or banana production, teachers used texts on fishing as primers. According to Nindi (personal communication, January 25, 1989), the reason for this mis-match was the poor coordination of literacy activities in the village communities and a shortage of instructional materials.

Further interviews with J. Nindi (personal communication, date, 1989) and D. Mbunda (personal communication, February 14, 1989) revealed that the content of the programs was not of an appropriate level to motivate villagers who had been engaged in agricultural production for a long time. Ironically, given the objective of the campaign, some of the texts did not introduce any new ideas concerning agriculture. Consequently, students attended irregularly, displayed passive resistance, or dropped out. Some participants attended classes only when they wished or when the local authorities applied special force (i.e.; by-laws or fines).

Evaluation Procedures

In order to enable the government to ascertain whether the functional literacy objectives were being realized or not, an evaluation exercise was considered necessary. Evaluation instruments such as attendance registers and special forms referred to as Upimaji wa Kisomo (UMK) were employed to determine the levels of learners' enrolment, attendance, and performance. Apart from this, literacy tests (paper and pencil tests) were used to assess the extent to which reading, writing, and simple arithmetic skills had been mastered by the learners.

The tests were graded according to four levels of achievement. Level I consisted of learners who had enrolled in and attended two thirds of the literacy sessions offered in a year. Level II was composed of learners who qualified for Level I but who could write or do simple calculations. Level III was comprised of learners who attended as in Levels I and II but in addition could read and write simple texts as well as do simple arithmetic. Level IV included learners who attended as per the lower levels but who could also read newspapers and use acquired literacy skills in community development. Learners who achieved Levels III and IV were considered literacy graduates; those who achieved Level IV were considered functionally literate.

However, it appears that literacy tests were only relevant as far as Levels I and II were concerned because their main focus was on the 3Rs. Since Levels III and IV required adult learners to master the 3Rs as well as functional skills, literacy tests were in themselves unable to evaluate functional literacy. Therefore, other assessment tools were needed. In spite of this, the government appears to have overlooked this crucial aspect of a successful program.

Since 1975, literacy tests have been continuously used as assessment tools to evaluate functional literacy programs. They may work, in a limited fashion, to evaluate basic literacy skills, but they certainly do not provide an effective means for measuring any upgrading of agricultural skills, which was an equally important objective of the functional literacy campaign. One researcher noted:

We have not succeeded in evaluation. We are still using the assessment tools used in assessing formal education. We cannot evaluate a better farmer through a paper and pencil exam. (D. Mbunda, personal communication, February 14, 1989)

In a larger sense, the literacy campaign was quite successful; in regard to the 3Rs, the literacy tests conducted across the country showed that the government managed to reduce illiteracy rates from 69% in 1967 to 9.6% in 1986 (MEC, 1986). However, in terms of functional literacy, even those people who apparently acquired functional literacy skills did not utilize them to improve agricultural production. A study conducted by Kinshaga (1985) revealed that the new idea of ox-cultivation, for example, appeared inimical to the values of some village communities. There was a feeling that using oxen for cultivation was brutal to the animals, and so farmers continued using hand hoes for cultivation. As cited above, the combination of inappropriate materials, teaching and evaluation methods, and insensitivity to local conditions resulted in disappointing levels of application of new agricultural methods;

in over ten years, only 25% of the rural population was able to improve agricultural production (MEC, 1986).

Literacy and Politics

The findings of the study showed very clearly that the literacy programs, although educational in nature, had political overtones, both in origin and in intended effects. In essence, these programs were designed to mobilize people to participate effectively in the task of agricultural improvement which was the basis of the country's socialist initiatives. Ujamaa was a development strategy which required literacy training as a means of reaching people in village communities to explain and popularize the strategy's objectives and to provide the social structure for its realization. Emphasis was placed on Ujamaa villages and cooperative service units in the village communities as a means of increasing agricultural production and raising people's living standards generally. It was this need which partly influenced the objectives of adult education and literacy campaigns in the country:

The third objective of adult education must be to have everyone understand our national policies of socialism and self-reliance. We must learn to understand the plans for national economic advancement so that we can ensure that we all play our part in making them a success and that we all benefit from them. (Nyerere, 1975, pp. 1-3)

Leaders were deemed crucial to the success of the Ujamaa villages, since living and working together depended on people's cooperation. The leaders used education as an instrument of persuasion about the objectives and implementation of Ujamaa strategy. Ujamaa therefore came to be a political strategy centred on literacy as a key organizing tool. The focus of the literacy programs, therefore, was not so much to develop small communities, but to achieve nationally defined goals and interests. The CCM Party therefore decided why, and how, and what they felt people needed to learn.

Concluding Comments and Recommendations

The study has examined Tanzania's efforts to use functional literacy as an instrument for achieving agricultural transformation in the country. The aim was to improve an understanding of the context and constraints which influenced the functional literacy program design and implementation in the country and to enable adult education policy makers and planners to make informed modifications where necessary and formulate relevant programs.

It has been noted that the functional literacy programs used to improve Tanzanian agriculture employed a top-down approach to realize nationally defined needs and interests. There was no dialogue between the government and the village communities with regard to program development and implementation. Although the government hoped for significant shifts in agricultural practices, this did not happen. The programs were developed without adequate information about local conditions, human and material resources, and learners' motivations or interests. The programs thus failed to generate sufficient learner motivation, which resulted in high rates of

dropout, passive resistance to programs, and government enforced by-laws and fines to "encourage" attendance.

Given the results cited in this survey, it would seem that if literacy programs are to serve as a vehicle for agricultural transformation, then people should be involved in the development and evaluation process of the programs to be offered. The programs should reflect local conditions, and not simply the leaders' and politicians' assumptions and interests. There should also be a proper interaction and intercommunication between the educators and the participants with a view to making the programs responsive to local conditions. Finally, the government should also consider the development and training of adult educators themselves, both in content areas and in educational techniques. This would enable the educators to better equip adult students with essential knowledge and skills required for improving agricultural production.

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