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CERTIFICATION--A TROJAN HORSE IN AFRICA:
A PERSPECTIVE ON EDUCATIONAL AND
SOCIAL CHANGE IN MAINLAND TANZANIA

by

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DISSERTATION

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PREFACE

Certification is accepted as a normal part of an educational system, yet it seems intuitively clear that if one wishes to change an educational system, or if one wishes to change a society, or to change both, one might best begin with this very institution. For certification stands as an interface between education and society, and, as such, it influences both and may be then used as a leverage point to bring about changes in both. But other people's intuitions are not usually sufficient to persuade policy-makers to pursue a particular course of action. Thus, this study essays to support intuition by reasoned argument. It attempts to clarify the issues involved and presents an argument to show how and why certification can be used as a leverage point for educational and social change.

In order to do this, the study addresses the question: To what extent does certification influence the role to be played by education in bringing about intended social change? This question is explored in the context of mainland Tanzania, where attempts are being made to change both the educational system and the society.

In making these attempts, Tanzania is similar to many newly independent countries in Africa, but it differs from most of them in the extent to which it has articulated, through policy statements,

a clear and coherent set of educational and societal goals. It is these policy statements, together with speeches made by President Nyerere, that are the primary sources used in this study. As they constitute an expression of intentions and aspirations, not factual evidence, the study is conceptual and analytical, not empirical. The study is intended to be heuristic, not definitive, and offers an array of further questions to be addressed and further studies to be conducted. It does not contain prescriptions for policy action and implementation.

It should be noted that, while the term Tanzania is used throughout the study, this refers only to mainland Tanzania. The union in 1964 of Tanganyika and Zanzibar to form the United Republic of Tanzania has not become in practice a close one. Zanzibar's internal affairs, which include education, have remained the responsibility of that island's Revolutionary Council and the Afro-Shirazi Party. Thus, in looking at Tanzania's educational and societal goals, we are concerned only with that part of Tanzania which was previously Tanganyika.

There are three aspects to this study. The first deals with the institution of certification and its influence on both education and society. The second deals with Tanzania and its goals and with the difficulties of attaining them if the issue of certification is not addressed. And the third touches on the issue of development and change and on the issue of the impact of rich countries on the

so-called underdeveloped countries through the transfer of institutions and technologies.

These three aspects are not, however, treated as separate and discrete. Taken together they form the argument and explanation of how and why certification is a powerful component in the multi-faceted field of educational and social change. Thus, Chapter I deals with the relationship of education to society and the way in which society calls on education to promote social change. Four functions assigned to education and the potential conflict among them are introduced. Also introduced are three forms of change--innovation, transformation and transfer. Economic development as a commonly accepted notion of change is discussed, and it is shown that development, by limiting the operation of internal agency, is usually, for the underdeveloped countries, change in the form of transfer.

Chapter II draws on the case of Tanzania, which has redefined for its own purposes the notion of development. As education is called upon to promote this particular form of development, its role has been reformulated. But, it is pointed out, the role of examinations and certificates has remained virtually unchanged.

Chapter III analyzes in a broad context the institution of certification--the certificates themselves (which are to be distinguished from credentials), the ways in which certificates are obtained and the ways in which they are used. It is shown that certification is a linking mechanism between education and society, a knot which ties together

the individual, the formal educational institutions, the economy and the society as a whole.

In the light of the general analysis of certification in Chapter III, the process, use and appropriateness of certification in Tanzania is examined in Chapter IV. A number of difficulties associated with and generated by certification are discussed. Some of these difficulties arise from Tanzania's particular social goals, and it is argued that certification needs to be changed if it is not to hinder the implementation of the broad social goals.

A possible explanation is given in Chapter V of why Tanzania has not yet attended to certification, in contrast to the wide-ranging changes it has already undertaken in other areas. It is shown that certification is a transfer in the realm of technology which distorts the relationship of education as a means to the ends of socialism.

The final chapter assumes that the argument that certification ought to be changed is accepted in Tanzania. It thus explores the viability of a range of possibilities to indicate the extent and complexity of educational and social issues which also need to be examined if one aims at a substantial change in the institution of certification.

It is expected that this study will have relevance not just to Tanzania but to all societies, for ultimately it is a study about change and the choices that need to be made about human and technological advancement, about what we wish our societies to be or to become in the future. "For the choice is not between change or no change; the choice

for Africa is between changing or being changed--changing our lives under our own direction, or being changed by the impact of forces outside our control."* This statement is as valid for the rest of the world as it is for Africa or for Tanzania.

* * * * *

It is with a sense of relief and pleasure that I come now to acknowledge the assistance I have received in doing this study--relief that the study is nearing completion, pleasure that I can acknowledge the help and encouragement that many have offered. I owe much to my fellow students in seminars who listened and tried to understand what I was endeavoring to say. For much of the thinking behind this study was formulated early on in naive and utopian ways, yet my colleagues encouraged the ideas I was grappling with and helped me to clarify the concepts I was (and will continue to be) struggling with. I would like to mention Linda Lamme, not because she helped me more than anyone else, but because the spirit of cooperation which she showed illustrates for me what is best in higher education. In a lively and provocative discussion of some ideas about recurrent education, she laughed so much that she cried, but she nevertheless went to the trouble to give me her typewritten reactions and criticisms of the paper which later emerged.

*Julius K. Nyerere, Introduction to Freedom and Unity: Uhuru na Umoja (Dar-es-Salaam: Oxford University Press, 1966), p. 22.

I am indebted to the members of my committee--especially Professors Gordon C. Ruscoe, Thomas F. Green, Warren L. Ziegler and Dr. Michael J. Folk (for Professor A. Dale Tussing has only recently returned from Ireland)--for the time and energy they spent in helping me to clarify and strengthen my argument. I owe a special debt to Professor Ruscoe, for he has with infinite patience and great humor advised and encouraged me throughout my three years at Syracuse University. I have learned much from his teaching, writing and insights. He has listened with tolerance to my wildest ideas and somehow managed to winnow the grain from the chaff. That he has always had time to discuss even matters of seemingly little import, but which were often keys to my further understanding of a problem, has meant a great deal in my education and in the writing of this dissertation.

I am also enormously indebted to my friend and colleague, Gerhard Kutsch, who has given up so much of his time to share freely with me his own ideas and understandings, so that I could clarify mine. Were I to do full justice to the assistance he has given me, he would figure in a footnote in almost every page of this study.

I should also perhaps acknowledge the inspiration I have gained from the work of President Nyerere of Tanzania and from the hope that he and his people offer of a world that could be different.

In acknowledging the assistance of these persons, I do not wish to attribute any of the shortcomings or weaknesses of this study--they are, of course, all my own.

D. W. Courtney

Syracuse, July 1973

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CHAPTER I

EDUCATION, SOCIETY AND CHANGE

Education in Society

Education and society are intricately related. Without education a society would cease to exist; education as the means of transmitting the culture of the society to the next generation serves to maintain the continuity, the self-perpetuation of the society.

Every society has some form of education, but the form will differ with the form of the society. In a small homogeneous folk society, there is a close, intimate relationship between education and society. The family is the major (but not the only) educational agent, transmitting the values and norms of the culture; that is, the family is responsible for the socialization of the young. It is also in such a society the main unit of economic production and therefore teaches the practical skills that are needed in adult life. The process of education is thus one of bringing up children to become responsible adults in a stable society. The task or function of education is to integrate the young into the existing, known situation, which is characterized by shared agreed-upon meanings and values, accepted codes of behavior and conduct, and established techniques for economic existence.

Few such societies exist today. Industrialization and its concomitant specialization of labor have diminished the responsibility of the family on several fronts. It is no longer the major agent for transmitting the values and norms of society. It shares responsibility for these tasks with schools, which have developed as universalistic institutions in increasingly industrialized societies. Further, the family is no longer the economic and productive unit of society, so it can no longer effectively train the young in the occupational roles they will play in adult life. The responsibility for allocating the young to different adult occupational roles has been largely taken on by the schools. Thus, the schools have an instrumental function in society in addition to an integrative one.

There is potential conflict between the two main agencies--the family and the school, and between the two main functions--the integrative and instrumental. The integrative function emphasizes what is common to all, the similarities among people in a society. The instrumental function, in allocating persons to different roles, stresses the differences among people. The relationship of education to society is less direct, more diffused and complex when the responsibility is shared by the family and the school, but the division of responsibility is not clearly articulated. There is a tendency for schools to take on greater responsibility which may result in conflict over what the family assumes to be its responsibilities. The potential conflict between the two functions may result in the displacement or demotion of the integrative function by the instrumental function.

Society in turn is characterized by a diversity of accepted meanings, codes of behavior, and techniques of production. As society has become aware¹ of the existence of diversity within itself, and the many directions such diversity may lead to, it has sought to direct the changes that are taking place, to arrest certain changes and to facilitate certain others. For all but the most extreme cases of directed change² society calls on education to promote the changes it desires. Education, and particularly the schools, acquire a further function-- that of inducing social reform.

There is again a potential conflict among the functions, especially as they are operationalized. Between the integrative and reform functions there is a conflict, on the one hand, in educating the young to fit into and conform to the existing society, and, on the other, in educating the young to be innovative and initiative in bringing about a society that does not yet exist. Between the instrumental and reform functions, there is a conflict, though it appears to be more amenable to resolution. One effect of the instrumental function has been, not only to allocate the young to adult roles, but to prepare them for these roles; that is, the schools have taken on the additional task of training (at least for some of the young) in specialized industrial skills. Without for the moment inquiring into the effectiveness or appropriateness of this training, it appears that the training in particular skills may (but need not necessarily) preclude the encouragement of the entrepreneurial skills and creativeness that are called for in the changing society.

There is a further function--that which is centered on the individual and not on the society. Education, for the society, is a means to an end. For the individual, education may be both a means to an end, a personal investment or a preparation for adult roles, and an end in itself, the pursuit of education for education's sake. In its role as a means to an end, education has an individual centered function. In its role as an end in itself, education may not be a function for or of society but is rather an activity that has intrinsic value for the person. (It may be a serendipitous enterprise, not amenable to institutional provisions. It is therefore not dealt with in any detail in this study of education in society.) In contrast, all four functions--integrative, instrumental, social reform and individual centered--as means to ends, have an extrinsic, instrumental value.

The potential conflict among the various functions is not always recognized. The functions tend to be treated separately. That they may not be compatible with each other, that they may in certain ways even be contradictory, is not always taken into full consideration. As these functions are operationalized and institutionalized, the conflicts among them tend to become real, and the expectations of what they are to do cannot be fulfilled. Thus, the institution of schooling, encumbered with a number of conflicting functions and attempting to solve certain social problems, turns out to be a social problem in end of itself!

The resolution of the conflict among the functions, and the elimination of the contradictions, is made more difficult because the

school is not an autonomous institution. It is an instrument of society, and lacks the agency to reject certain functions. Even if the school re-orders its priorities it is influenced by the society in ways the school is unable to control.

Development

The social change that education is called upon to promote is usually "development," "progress," "modernization." Whatever these terms mean, the "modern industrial society" or the "developed country" appears to be the result of an historical accident. It is not the result of purposeful and directed social change, that is, of planning. Nor is it the result of increased formal education, that is, of schooling. That is to say, in the past, high literacy rates, a relatively skilled labor force and industrial development appear to have been associated with each other.³ But increased formal education appears to be a result, an integral part of economic development rather than an instrument for economic development. And planning for the most part⁴ appears to be an outgrowth of development. Development for the developed countries has not been brought about by planning. Nevertheless, formal education as human capital,⁵ especially in its instrumental guise,⁶ is being called upon to bring about development in the so-called underdeveloped countries.

Now "development," "progress," "modernization" for the underdeveloped countries seem to mean "catching up" with the developed countries--especially in economic terms. That is, economic development

seems to mean that which the developed countries have attained: urbanization and industrialization based on scientific and technological means of production. These characteristics are translated into indicators of development, such as average and aggregate levels of national and per capita income, economic growth rate, manufacturing capacity, food production, value of exports. These indicators are quantitative measures of economic development. As such, they may not adequately describe qualitative matters such as the social conditions of the country, either as they exist now or as they existed previously, which gave rise to the changes that are seen today as development.

One of the commonest indicators of development is per capita GNP. Developed countries are those which have GNP's of \$1000 and over; underdeveloped countries are those which have GNP's below \$500; a number of countries fall in between. There are relatively few developed countries by this measure. However, what this measure really indicates is that there are a few rich countries, a few relatively rich countries, and a large number of poor and very poor countries.⁷ But the wealth of a country is not necessarily an adequate or appropriate indicator of development, that is, of the social and economic conditions of a country. A country like Libya may have a high GNP but still be thought of as underdeveloped by other criteria.⁸

GNP, like other economic indicators, represents in simplified and quantifiable form the results of an intricate and complicated process that the rich countries of today have undergone. The factors within the process are interrelated and interdependent. No single one appears to

be sufficient; that is, all appear to be necessary. Thus, development is not thought of by the rich countries as being a redistribution of the world's wealth, even in purely financial terms. Development is seen as a process by which a country pulls itself up by its bootstraps with assistance and guidance from the developed countries. This is a long term and slow moving process. At best, it may improve conditions in a country, but it is unlikely to resolve the differences between countries since the rich countries are, after all, still developing. Indeed, the gap between the rich and poor countries will increase if the rich countries continue to grow richer at a faster rate.

As long as development is treated as a quantitative, not a qualitative, matter, there is a tendency to discuss only the means to attain development. Discussion of what development is, that is, the ends or goals, is limited. The state of being developed is assumed to be "good," and the process of development that the developed countries have undergone is assumed to be the "right" and "natural" way of change. Although a simplification, it is almost as if "more" means "better"--with no further questions raised. It is only relatively recently that wider recognition is being given to the fact that economic development is not an unambiguous, undifferentiated, unqualified "good," as people recognize, for example, that one of the disbenefits of affluence and increased industrialization is increased effluence and pollution.

Further, development is really a metaphor,⁹ a meaning, used to

describe changes that have occurred. It may not be governed by "natural" laws, as is biological development. That is, while biological development, from which the development metaphor is derived, is teleological and possesses a determinate end (an acorn develops into an oak tree), the same cannot be assumed a priori for economic development. To treat the end results of an intricate, complex, historical process as the "natural" end or goal for all societies has one crucial consequence: it means that alternative ends or goals of development are excluded. Thus, development, from the viewpoint of the developed countries, is to make the underdeveloped countries into "modern industrial societies," that is, to make "them" like "us." It is assumed that underdeveloped countries accept this viewpoint as a matter of course. And, in addition, if the end is accepted as a given, without discussion or demur, there is a tendency also to accept the means of attaining this end. But if we recognize that development is a metaphor to describe a certain kind of social change that has occurred, we recognize also that there may be different ends of social change and different means of attaining them.

Social Change

One way to look at the process of social change is to consider who initiates the change. It is said that change stems from "some need which existing ways do not satisfy."¹⁰ If the existing ways do not satisfy my "need," I may invent a different way to satisfy that need. The ensuing change would be an innovation. The particular form might be the result of

an accident; it would not be entirely novel, even where the change is the result of a reaction to something else,¹¹ since every change has an antecedent.

But I might also "borrow" a way from a different situation, from a different country, that might satisfy my need if it was transformed to fit into the pattern of my other ways. The change that occurred would then take the form of a transformation. Or if someone else were to point out that I needed some new way, and the pointing out was done in such a manner that I would not or could not reject it, the change that would occur would take the form of a transfer. In the forms of change as innovation and transformation the initiation and carrying out of the change, the agency, is internal. In the form of change as transfer, the agency is external.¹²

The purpose of social change is to benefit people, and let us assume for the moment that it is to benefit the greatest number of people. To benefit people, changes may be made in the cultural, social and physical environments, that is, in the realms of meanings, of conduct and of technology. Changes may be made in the ideas, values, beliefs, myths, metaphors, worldviews by which people live and act. Or changes may be made in the codes of behavior, the personal relationships, the social institutions by which and through which persons interact with each other. Or changes may be made in the things people use; the techniques of production, the environment within which the production takes place. An example of a change in the realm of meanings

would be a religious conversion.¹³ The emergence of schools as institutions of formal education would be a change in the realm of conduct. The creation of a factory from a cottage industry would be a change in the realm of technology. The realms are interrelated and interdependent. A change in the legal code would, for example, clearly affect changes in both the realms of meanings and of conduct. Utilizing an assembly line in a factory would effect the realms of conduct and of technology.

In seeking to bring about change, elements may be borrowed from other countries in order to transform them. But it would appear that some elements are not easily transformable; they tend only to be transferable. That is to say, some elements that are borrowed are of such a nature that it is difficult to separate them as means from the ends which they already serve. If they are borrowed as an instrument, a means to another end, they are so inextricably linked to the previous ends that they prove to be dysfunctional, either failing to meet the new end or changing the new end to coincide with the previous end. For example, a peasant farmer might "borrow" a disc plow, but without a tractor to draw it the plow would be virtually useless. To borrow the tractor as well would necessitate the services of a mechanic, a workshop and the importation of spare parts if the tractor was not to be abandoned when it broke down.

The most common elements chosen for transformation are in the realm of technology. They are things, often tools, and techniques of production. It is often assumed that such elements are value neutral,

that they may be borrowed and transformed without affecting either the realms of conduct or of meanings in any adverse way.

But these elements in the realm of technology (which may lend themselves to more rapid introduction than elements in the other realms) may have far reaching effects on the realms of conduct and of meanings. A change of technology may result in changes in institutional and value patterns, whether these latter changes are intended or not. The far-reaching consequences of a change in the technological realm may be illustrated by the case of the Yir Yoront aboriginals. Their stone axes were replaced by steel axes, and although this change did not have a marked effect on the technological realm and the uses to which the steel axes were put, there were very marked changes in the value and belief systems of the group and in the institutions and personal interactions among members of the group.¹⁴

Thus, even when the intention and agency of change are internal and when transformation is intended, it may turn out that transfer results. This seems to be the case particularly with change in the technological realm, so that it seems as if there is a technological inertia,¹⁵ a force in things and tools that makes them amenable only to transfer and not to transformation.

Development As Transfer

The clearest example of external agency in initiating change is that of colonialism:

The pattern of economic development, political unification, and social disruption was imposed in the early days with a supreme nineteenth century disregard for local needs and aspirations, the general view being that African values were irrelevant and should be ignored.¹⁶

Although the "nineteenth century disregard" was later modified, colonialism can still be defined as:

the direct political, economic and educational control of one nation over another...[and] Neocolonialism is partly a planned policy of advanced nations to maintain their influence in developing countries, but it is also simply a continuation of past practices.¹⁷

Development for the underdeveloped countries is like colonialism.

In some ways it is worse than colonialism: the colonial administrator who spent a lifetime in a colony and who came to regard himself as a part of the colony as an internal agent has been replaced by the expert adviser who may have little time for understanding the complexities and niceties of the particular country he is visiting. In other ways, development is better than colonialism: national leaders do have a choice of what, when and how to make changes.

But development which is treated as making "them" like "us" gives only the appearance of choice and of internal agency. The end or goal is taken as a given; it is already set for the underdeveloped country when that country is defined as underdeveloped by the developed countries--an external agency. Because it is economic development that is posited as the end, the means of change are technological transfers; things and techniques for producing things are transferred from outside the country, from the developed countries.

If we consider the shifts that have occurred in the types of development aid over the last 25 years, it is apparent that the realm of technology is no longer simply related to things and the production of things, but it subsumes also the realms of conduct and meanings. Initially, development aid to underdeveloped countries took the form of financial transfers (similar to those made then to post-war Europe and Japan). These proved less than successful (though one might ask, in whose terms?) and aid was then given in the form of technical assistance.

This was followed by a form of institution-building which prescribed what economic, social, and at times even political institutions would be most effective to utilize the technology that was offered. There followed then efforts at mass education and social welfare which would affect the attitudes of the people toward technology. Most recently, at least one economist has argued openly that for development aid to be successful the underdeveloped countries must choose new social values.¹⁸ Again, one might ask, success for whom and in whose terms?

Another shift in development aid that may be seen is the shift in the visibility of agency--from external to internal agency. The national leadership of an underdeveloped country may appear to choose certain elements over others--that is, moving to the form of change of borrowing and transformation. But even then certain elements are more easily transformed than others. Elements in the realm of technology--

hardware--do not appear to be easily transformable, a tractor remains a tractor; elements in the realm of conduct appear to be a softer ware and to be more easily transformed. However, some elements in this realm, such as economic and educational institutions, are "harder" than others, such as political and religious institutions. That is, some institutions, even where the internal intention is transformation, turn out to be susceptible only to transfer, and this may be due to their closeness to the purely technological realm.

Development as commonly viewed is linear expansion of the availability of material goods and its concomitant urbanization and industrialization; it is both inevitable and desirable. I have argued that in this view development for underdeveloped countries is change in the form of transfer which is prescriptive, and the elements used to bring about this form of change are subject to technological inertia. A less commonly held view is that development is a complex process, that both its ends and means are open to interpretation, and that those who will be most affected by it should determine the form and substance of the changes to be brought about in their society. Chapter II deals with such a viewpoint in a particular society--Tanzania. ?

NOTES TO CHAPTER I

¹This is used metaphorically. Society is an abstraction and is not capable of awareness, intentions or actions. Only persons have these capabilities and are able to initiate and implement changes. Where society is seemingly empowered with personal capabilities, the usage is only figurative and should not be read as personification.

²In the most extreme cases, such as Russia in the post-revolutionary and Stalinist periods, some people were thought to be irredeemable, incapable of re-education, and therefore isolated from the rest of society.

³See: C. Arnold Anderson, "Literacy and Schooling on the Development Threshold: Some Historical Cases" in Education and Economic Development ed. by C. Arnold Anderson and Mary Jean Bowman (Chicago: Aldine Publishing Co., 1965), pp. 347-362; and M. B. Janson and L. Stone, "Education and Modernization in Japan and England" in Comparative Studies in Society and History, Vol. IX, No. 2 (1966-7), pp. 208-232.

⁴Excluded here are the cases of the USSR--since it is both developed and developing, having a high industrial capacity and also large areas that are underdeveloped; of Japan--for though its growth is usually thought of as being the result of planning, this view is not supported by Herbert Passin in "Portents of Modernity and the Meiji Emergence" in Education and Economic Development, Anderson and Bowman, pp. 394-421; and of Israel, which is unique.

⁵For a discussion of the investment in education to produce human capital, see: Theodore W. Schultz, "Investment in Human Capital" in American Economic Review, Vol. 51 (1961), pp. 1-17; and the supplement to Journal of Political Economy, Vol. 70, No. 5 (1962), "Investment in Human Beings," which contains eight articles.

⁶Albert E. Gollin, "Foreign Study and Modernization: The Transfer of Technology-Through Education" in International Social Science Journal, Vol. 19, No. 3, Fall 1967, p. 361.

⁷The following table may illustrate this point. It is compiled from: Benjamin Higgins, Economic Development (New York: W. W. Norton and Co., 1967), Appendix Table I; Gross National Product Per Capita, 1961 and 1964, pp. 851-854.

Number of Countries in 1961*	Gross National Product Per Capita					
	Over \$2000	\$1000- \$2000	\$500- \$1000	\$250- \$500	\$100- \$250	Below \$100
English speaking and European	2	10	5	3	1	-
Communist	-	-	3	5	3	1
Latin America	-	-	3	10	7	2
Middle East	-	-	1	1	10	1
Asia	-	-	-	2	6	8
Africa	-	-	-	-	3	8
TOTAL	2	10	12	21	30	20

* (1964 figures are incomplete, thus not included)

⁸The inadequacy and inappropriateness of GNP as a comparative measure is reflected in the following selected figures:

Gross National Product Per Capita (1969)--US \$4240, France \$2460, GB \$1890, USSR \$1200, China n/a on this table (all five countries have produced nuclear weapons), Kuwait \$3320, Libya \$1510 (both are major oil producers but are underdeveloped).

To compare the US and China, income per capita figures are available, thus: US \$3886, USSR \$970, China \$90, Tanzania \$70.

First set of figures are from table on p. 3, second set from country entries p. 266, 272, 58, 254, The Book of the Year 1973, ed. by James Partington (New York: Collier Books, 1972).

⁹Robert A. Nisbet, Social Change and History: Aspects of the Western Theory of Development (New York: Oxford University Press, 1970).

¹⁰Edward H. Spicer in Human Problems in Technological Change ed. by Edward H. Spicer (New York: John Wiley and Sons, 3rd printing, 1967): p. 292. As explained in Note 1 above, a society cannot have a need. See: H. G. Barnett, Innovation: The Basis of Cultural Change (New York: McGraw-Hill, 1953), p. 15. An alternative formulation, which however also avoids the issue of agency, is that change is "a response to the presence of some degree of social disorganization, caused either internally or externally." Amitai and Eva Etzioni in Social Change, ed. by Amitai Etzioni and Eva Etzioni (New York: Basic Books, 1964), p. 403.

¹¹See: Barnett, Innovation, pp. 7-9, who defines an innovation as "any thought, behavior, or thing that is new because it is qualitatively different from existing forms," p. 7.

¹²These definitions are drawn in personal terms. They will however be used in non-personal terms, as though they were applicable to society, which in reality they are not. A society will be "assigned" internal agency where the intentions and actions originate in that society; where intention and action occur in different societies, the agency is external.

¹³It is virtually impossible to give an example of change in the realm of meanings alone that is not couched in personal terms. Changes in this realm that affect more than one person will involve institutions and thus affect changes also in the realm of conduct.

¹⁴See: Lauriston Sharp, "Steel Axes for Stone Age Australians," in Spicer, Human Problems in Technological Change, pp. 69-90.

¹⁵The term "technological inertia" is preferred to the more commonly used term "technological imperative," since the latter seems to imply absolute inevitability and the absence of any human actor or agent controlling or choosing among technologies. In this context, cf. Elisabeth Mann Borgese, "Human Nature Is Still Evolving" in The Center Magazine, Vol. VI, No. 2, March/April 1973, pp. 4-9, who writes: "Technology has no moral dimension. What is good or bad is the use we make of it. I cannot accept the idea of a technological imperative, the notion that technology is something autonomous and devilish, which in the end, will destroy mankind and probably the whole world." (p. 6.) The term "inertia" is used intentionally for its connotations with mechanics, cf. the OED definition: "That property of matter by virtue of which it continues in its existing state, whether of rest or of uniform motion in a straight line, unless that state is altered by an external force."

¹⁶J. Cameron and W. A. Dodd, Society, Schools and Progress in Tanzania, (Oxford: Pergamon Press, 1970), p. 230.

¹⁷Philip G. Altbach, "Education and Neo-colonialism: A Note," in Comparative Education Review, Vol. 15, No. 2, June 1971, p. 237.

¹⁸See: Neil Jacoby, "The Progress of Peoples: Toward a Theory and Policy Development with External Aid." The Center for the Study of Democratic Institutions, A Center Occasional Paper, June 1969. The significance of this shift in development aid is beginning to provoke some debate (though minimal action except among a few low-profile countries such as Sweden and the Netherlands) about the kinds

and amounts of aid that are desirable. Jacoby's view is that "there exists something like a practical science of development" (a comment made by William Gorman, a discussant of Jacoby's paper and not denied by Jacoby, p. 34, his italics). Another view is that of Sayre P. Schatz, "Implications of Economic Development" in Development: For What? ed. by John H. Hallowell (Durham: Duke Univ. Press, 1964), who argues that economic development necessarily implies a "transformation of deeply held social values" (p. vii) and thus much bolder policies are needed to meet the problems and the disruptive social consequences. In contrast, Gunnar Myrdal, "Political Factors in Economic Assistance" in Scientific American, Vol. 226, No. 4, April 1972, pp. 15-21, states categorically that "No aid can be morally neutral" (p. 21). And Denis Goulet begins the preface to The Cruel Choice: A New Concept in the Theory of Development (New York: Atheneum, 1971) with: "The aim of this work is to thrust debates over economic and social development into the arena of ethical values." He thus calls for attention to be paid to the values held by those in developed countries. Apart from the moral objections to the imperative that underdeveloped countries choose new values, it is difficult to imagine how one goes about choosing new values, since the values are a part of one's culture, and how one chooses a culture different from one's own. Ultimately, values lie at the base of any choice; therefore, how does one choose to change that basis of choice?

CHAPTER II

TANZANIA

Underdevelopment

Tanzania is an underdeveloped country by most criteria. Indeed it was classified as one of the least-developed countries by the General Assembly of the United Nations in November 1971 on the specific criteria of a low level of income (Per Capita Gross Domestic Product of \$71), a small manufacturing capacity (6% of total production) and widespread illiteracy (only 17% adult literacy).¹

The least developed countries are described by the OECD Observer as being comprised of peasant societies, in which agricultural development is limited to a considerable extent by the ecological conditions (e.g., poor soils, insufficient rainfall). There are poor communications and a marked difference between rural and urban conditions. In the rural areas agriculture is largely for subsistence purposes, with cash crops produced almost entirely for items such as school fees and taxes. The general absence of cash incomes results in a limited demand for manufactured goods, resulting in a market which is too small to attract foreign investors. Mineral resources are largely undetermined or undeveloped. There is a relative absence of "human capital" so that

not only are there insufficient personnel to man the social services such as health and education, thereby causing bottlenecks in the implementing of changes (e.g., availability of agricultural extension workers); but also there is a low absorptive capacity for technological advances.²

This description fits Tanzania reasonably well. Two-thirds of the land area is unsuitable for human settlement due to inadequate rainfall and tsetse fly infestation, so that 90% of the population lives on one third of the land. Less than 5% of the population lives in the urban areas or is employed in the exchange market or modern sector. The bulk of the population is engaged in subsistence agriculture.³ Further, about one third live close to the shores of Lakes Victoria and Tanganyika and are at the end of long lines of communication that were developed for getting goods to the coast for overseas markets without concern for the development of internal markets.⁴

Diamonds and a small quantity of gold are mined but "present indications are that Tanzania...is not rich in easily exploitable minerals."⁵ There are clearly two economies--that of the modern monetary sector and that of the traditional subsistence sector. The modern sector, though small, contributes out of all proportion to external trade and the earning of foreign exchange.

Tanzania is thus poor in respect to both its physical resources and its capital accumulative ability. In terms of its human resources,

there are insufficient skilled personnel to man even the enterprises, government and private, established prior to independence. A further burden in attempting to expand the number of skilled personnel is that, with a life expectancy of 40-41 years,⁶ about 45% of the population is under the age of 16.⁷ That is, almost half the population is relatively unproductive in economic terms.

Thus, Tanzania is a poor country, but its poverty can be expressed in three different ways. First, with the majority of people living at a subsistence level at which one poor harvest can produce a real famine, there is a level of absolute poverty. To recognize this is to address the question of needs. Second, with a dual economy and an urban/rural dichotomy, poverty is relative within the country. To recognize this is to address the question of relative distribution. It is, third, a poor country when compared to other countries, and it is this relative poverty which is addressed when a country is described as underdeveloped.

But there are several difficulties that arise from this last way of describing a country. The first is that, once a problem is defined, a particular kind of solution is assumed to be available and that those who define the problem also have the solution to the problem. A second, concomitant difficulty is that certain features are singled out as being relevant to the problem and thus the ones to be attended to in order to solve the problem. Questions are seldom raised as to whether these features are the only relevant ones, whether to remedy them will

prove adequate, and whether their remedy and solution is appropriate to the issue of underdevelopment, distribution or needs. For to resolve the issue of underdevelopment is to only address directly the poverty level which is relative to other countries. This leads to a failure to address adequately the two other levels of poverty.

By paying greater attention to urban developments and to industrialization (which are the comparable features to the developed countries), the relative degree of poverty between urban and rural areas may be increased. And urbanization and industrialization are likely to have little impact on relieving the level of absolute poverty which affects most of the rural population. As long as development is seen as industrialization and urbanization, rural development is only a means to this end. Increased food production is needed for the increased urban population.

But to increase food production and to release the rural underemployed for industrial employment, agriculture must be changed from a subsistence basis to a market crop basis. This development depends on eliminating the tsetse fly, increasing the permanent water supplies, producing drought-resistant and increased-yield crops, and persuading the farmers to change their methods and their dependence upon food crops. As this development takes place, it will presumably offer an expanding market for manufactured goods.

Thus, further industrialization is dependent on development in the rural areas. All this requires money, and neither mining nor

the export of Tanzania's primary products (tea, coffee, cotton, and sisal) can bring in even adequate amounts of the foreign exchange needed to finance such investments, particularly at a time when the terms of world trade are not especially favorable to primary producers.

For Tanzania, as for other least developed countries, this process means that "it will be virtually impossible for these countries to make any substantial progress if they have to rely entirely on their own human, physical and financial resources."⁸ That is, for Tanzania to break the vicious circle of relative poverty, it will have to rely on development aid to provide personnel, technology and finance in order to make "substantial progress." It will have to be a dependent country--dependent on aid from others and on their definition of progress and development.

Development Redefined

Until 1967, Tanzania appeared to accept the usual definition of underdevelopment--low income levels, low manufacturing capacity, widespread illiteracy. It also appeared to accept conventional solutions to these problems--dependence on others for financial and technical assistance, expansion of the modern monetary sector, rationalization and mechanization of the rural sector. The Five Year Development Plan, 1964-69, with heavy reliance on foreign aid, envisaged

the accomplishment of a social and economic revolution [stating] "the poverty of the country results more from structural deficiencies in economic and social fields than from any lack of potential within either of them" [and] the bulk of expenditure was earmarked for the development of agriculture, industry, commerce and infrastructure which accounted for almost two-thirds of the total [£246 million]. Social services, including health, education, and housing, by far the largest item, accounted for the remaining third.⁹

But publication of the "Arusha Declaration" on 5 February 1967 called into question the standard meanings of, problems of, and solutions to underdevelopment. Before dealing with this document, its intentions and implications, a brief history of Tanzania seems in order.

Background to the Arusha Declaration

Tanzania¹⁰ was colonized by Germany in the 19th century scramble for Africa, and after World War I it was mandated to Britain by the League of Nations. First as a Mandate and then as a UN Trust Territory, it was never considered as a British colony suitable for settlement as was the case with Kenya and Rhodesia. There were relatively few settlers, of varied nationalities, having limited political influence. UN visiting missions after World War II were sympathetic toward aspirations to independence, and the country peacefully attained independence from Britain in 1961, adopting republican status within the British Commonwealth in 1962.¹¹

Tanzania has differed from most African countries on several counts. First; it was administered by two colonial powers, Germany and Britain, each for a period lasting about 40 years. The two powers' policies were quite different,¹² visibly so, with the result that Tanzania was less ready than other colonies to accept British rule as "natural," usual or lasting.

Second, the struggle for independence was minimal because Britain was never the final arbiter on this question but only the temporary protector of Tanzania for the UN. Moreover, Britain had neither strong emotional ties in the form of British settlers¹³ nor financial interests to protect. With no large tribes, but with more than 120 small tribes, none of them large or strong enough to dominate the others, there was an absence of the kind of internal conflict and competition among tribes for political power and domination that has disturbed and disrupted so many other African countries.

Third, a single language, Swahili, was widely used and accepted. It was used in administration by the Germans and retained by the British as the medium of instruction in most primary schools. It is now the national language.

Finally, there is the profound influence exercised by Julius Nyerere, who created the Tanganyika African National Union (TANU) in 1954, led the country to independence in 1961, and became the first president in 1962. He is known affectionately by his countrymen as

Mwalimu (teacher) and has even been romantically described as Tanzania's Philosopher-King. His influence is such that it is difficult to determine which are his policies and which are those of the TANU. His style of operation, which includes spending almost half his time in rural areas, often traveling on foot, is clearly one of deliberative and persuasive rather than authoritative leadership, and he seeks by his own example to imbue others with his ideals.

Tanzania, although one of the poorest countries in Africa, has gained international attention for the leading role it plays in African affairs. Perhaps its unusual background has facilitated its emergence as a country that is attempting to find alternative and different solutions to its particular problems. It differs most clearly from other African countries in the clarity and coherence with which it has stated its intentions about political, social and economic independence, especially since 1967. Thus, it is necessary to return to the question of development, and to the appropriateness of the previous definition of and solutions to underdevelopment, in light of the "Arusha Declaration and TANU's policy on Socialism and Self-Reliance."¹⁴

The Arusha Declaration

The Declaration begins with a reiteration of the principles of socialism on which TANU is based, but it is much more a statement of intent than previous policy statements. "Ujamaa: The Basis of

African Socialism"¹⁵ was published in 1962, but it was "neither a call to action nor a program of development but a statement of humanistic ideals [which are] sufficiently imprecise and flexible to provide justification or explanation for almost any governmental policy."¹⁶

In contrast, the Declaration states:

A truly socialist state is one in which all people are workers and in which neither capitalism nor feudalism exists. It does not have two classes of people....no person exploits another....and the incomes derived from different types of work are not grossly divergent....all the major means of production and exchange in the nation are controlled or owned by the peasants through the machinery of their government and their co-operatives.¹⁷

Although this state is yet to be attained, there is the war against poverty and oppression which must also be waged:

it is obvious that in the past we have chosen the wrong weapon for our struggle because we chose money as our weapon. We are trying to overcome our economic weakness by using the weapons of the economically strong--weapons which we in fact do not possess....It is as if we had said "Money is the basis of development. Without money there can be no development."¹⁸

Money as the basis of development is rejected for two reasons:

Firstly, we shall not get the money....there is no country in the world which is prepared to give us gifts or loans or establish industries, to the extent that we would be able to achieve all our development targets....even if all the prosperous nations were willing to help the needy countries, the assistance would still not suffice. But in any case the prosperous nations have not accepted a responsibility to fight world poverty.

and secondly,...even if we could get all that we need, such dependence on others would endanger our independence and our ability to choose our own political policies.¹⁹

The document then addresses the question of industrialization, its costs and benefits, and points out that people in the urban areas are the chief beneficiaries of industrialization but that the costs are borne largely by people in the rural areas:

The largest proportion of the loans will be spent in, or for, the urban areas, but the largest proportion of the repayment will be made through the efforts of the farmers [and] if we are not careful we might get to the position where the real exploitation in Tanzania is that of the town dwellers exploiting the peasants.²⁰

In rejecting money and industrialization as the bases of development, the claim is made that

the development of a country is brought about by people, not by money. Money, and the wealth it represents, is the result and not the basis of development. The four prerequisites of development are different: they are (i) People; (ii) Land; (iii) Good Policies; (iv) Good Leadership.²¹

These four prerequisites are explicated to mean that agriculture is to be the basis of development, not for development. "The main aim of development is to get more food."²² People are to work hard since "the people and their hard work are the foundations of development, and money is one of the fruits of that hard work."²³ They are also to be taught the meaning of self-reliance and encouraged to practice it in order to implement the policy of socialism.

In accordance with the call for good and exemplary leadership, the Declaration specifies that a Government or TANU leader (which also includes those at the lowest level)²⁴ should neither hold a directorship in a private enterprise, nor shares in a company, nor receive

more than one salary, nor own houses for renting to others. This specification appears as Part 5 of the document and is the Arusha Resolution, properly speaking. It is perhaps worth noting that this matter is said to have caused the greatest consternation among the delegates and that, although leaders were given a year in which to divest themselves of their interests, a small number preferred to leave the party than to do this. Nyerere's example is quite clear. In October 1966, at the time of the university student crisis which arose over students' national service obligations,²⁵ Nyerere took a 20% cut in salary and "persuaded" his ministers to do likewise.²⁶

Thus, the Arusha Declaration, a statement not by Nyerere but by the TANU National Executive Committee, rejects the conventional prescriptions to Tanzania's problem of underdevelopment. It insists that people, not money, should be the basis of development; that rural development is necessary, not just to facilitate industrialization, but in order to alleviate the absolute poverty of the mass of people; that urban development should not precede rural development; and that dependence on other countries for assistance is not feasible or desirable.

In stressing people, not money, the Arusha Declaration calls for a distributive revolution rather than a development revolution. That is, it calls for small but significant improvements, such as better health and better food, in the lives of the peasant farmers rather than rapid industrialization and dramatic changes in the living

standards of the urban minority. Development is thus given a new interpretation. The major concern is with absolute poverty and with distribution, not with underdevelopment or poverty relative to other countries. Therefore, the common measures of development such as GNP²⁷ appear to be inappropriate.

Socialism and Self-Reliance

For Nyerere, socialism is an attitude of mind,²⁸ a belief, a way of life,²⁹ and self-reliance is its major structural component. The basis of socialism in Tanzania is the traditional African family living together according to the principles of ujamaa--familyhood.³⁰ These principles are stated as: mutual involvement and respect for one another, communality of property, and an obligation upon everyone to work.³¹

The objective of socialism is

to build a society in which all members have equal rights and equal opportunities; in which all can live at peace with their neighbours without suffering or imposing injustice, being exploited, or exploiting; and in which all have a gradually increasing basic level of material welfare before any individual lives in luxury.³²

To do this

We must take our traditional system, correct its shortcomings [unequal treatment of women and poverty³³], and adapt to its service the things we can learn from the technologically developed societies of other continents.³⁴

Prior to the Arusha Declaration, self-reliance was a broad principle underlying many of Nyerere's actions. It was a concept

he insisted on when forming TANU in 1954. At that time the party was to be for Africans only, not because its principles were racist but because it was believed that only through organizing their own affairs and gaining independence by themselves could Tanzanians gain self-confidence in their ability to govern themselves and to control their own destiny. Membership in the party was opened to people of all races in 1963.

In the area of international relationships, an independent, if not self-reliant, position has been taken. This is perhaps best exemplified by Nyerere's remark in Peking in 1965: "We wish to be friendly with all, and we will never let our friends choose our enemies for us."³⁵

In 1964, when Tanzania recognized East Germany, West Germany withdrew its promised military and technical assistance, worth £7 1/2 million. And in 1965, when Tanzania broke diplomatic relations with Britain (in accordance with an OAU resolution) over the Unilateral Declaration of Independence in Rhodesia, Britain suspended an £8 million loan which, like the West German aid, was crucial to the Five Year Development Plan, 1964-69.

Now, it might be suggested from these instances that self-reliance is a result of necessity due to Nyerere's being overprincipled, too idealistic, or just plain unpragmatic. I would suggest, however, that this criticism is inappropriate. Tanzania attempts to put its ideals and principles into practice, even if this seems to lead to its

economic disadvantage.³⁶ It is perhaps a further instance of Tanzania's unwillingness to accept as appropriate the practices which are prescribed through some forms of tied aid and which are expected by some of the developed countries.

The Arusha Declaration was followed later in the year by two further statements of intent--"Education for Self-Reliance" and "Socialism and Rural Development."³⁷ Since publication of these statements, socialism and self-reliance have been put into practice in a number of ways, and they have come to mean slightly different things at different levels of operation.

"Socialism and Rural Development" calls for the gradual and voluntary establishment of ujamaa villages, so that instead of being "a nation of individual peasant producers who are gradually adopting the incentives and ethics of the capitalistic system," Tanzania should become "a nation of ujamaa villages where people co-operate directly in small groups and where these small groups co-operate together in joint enterprises."³⁸ There are still relatively few of these villages. In 1972, there were over 3000 villages involving 1.3 million people, which represents only 10% of the population.³⁹

A less gradualistic approach was taken at the national level, where socialism and self-reliance resulted in the partial nationalization of banks and commercial enterprises, and where para-statal corporations have been established in order to shift the control of economic power from the private to the public sector.⁴⁰

At the international level, Tanzania has preferred assistance from low profile countries, such as Sweden, which offer less threat of domination. Such assistance is largely in the form of small, specific cooperative ventures, where aid can act "as a catalyst of Tanzanian activity."⁴¹ Although massive aid has been received from China, especially to build the Tanzania-Zambia railway, this has been represented as an exception in order to help a beleaguered neighbor.⁴² Indeed, 1972 saw passage of a resolution to seek no further aid from China until the railway is completed in 1975.⁴³

In summary, Tanzania has chosen not to accept the notions of transfer that are implicit (and sometimes explicit) in the usual definition of development. It is willing to borrow elements from other countries but seeks to transform them in the light of its particular needs as perceived from within the country. It aspires to a particular political, social and economic framework, and education is called upon to promote the social changes that are necessary to translate the declarations of intent into reality. Education is seen then as a means to the ends of socialism and self-reliance.

Let me turn then to a consideration of the kind of education envisaged in "Education for Self-Reliance." In dealing with this document, it is useful first to summarize it without comment and then to discuss its implications.

Education for Self-Reliance

"Education for Self-Reliance" is in essence a survey of the kinds of education there have been in Tanzania--traditional, colonial and present (1967)--and an outline of the changes that are to be made in the future. It stresses that the purpose of education has always been the same--to transmit the knowledge, skills, values and attitudes of the society. But as societies change, so must the focus and emphasis of education change.

Traditional education was informal. There were no schools, but children learned in the home the skills and behaviors of the society; they learned the tribal history and the values and beliefs of the society from the tribal elders; and every adult was a teacher, to a greater or lesser degree.

The colonial system was formalized and

was modelled on the British system, but with even heavier emphasis on subservient attitudes and on white-collar skills.... It emphasized and encouraged the individualistic instincts of mankind [and] led to the possession of individual material wealth being the major criterion of social merit and worth.⁴⁴

This system was deemed inadequate and inappropriate for the newly independent state of Tanzania.

By 1967 changes had been made to eliminate racial and religious discrimination from the schools, to expand the opportunities available, and to replace the British perspective in order to make them much more Tanzanian in content. But further modification--or a new approach--may be needed, given that Tanzania wishes to be a socialist, not a capitalist society.

Although we do not claim to have drawn up a blueprint of the future, the values and objectives of our society have been stated many times. We have said that we want to create a socialist society which is based on three principles: equality and respect for human dignity; sharing of the resources which are produced by our efforts; work by everyone and exploitation by none.⁴⁵

In order to build this socialist state, education must do certain things:

our education must inculcate a sense of commitment to the total community....emphasize co-operative endeavour, not individual advancement; it must stress concepts of equality and the responsibility to give service which goes with any special ability....And, in particular, our education must counteract the temptation to intellectual arrogance.⁴⁶

Education must also prepare the young people to be good farmers and good citizens. To do this, it must encourage in each person the development of

an enquiring mind; an ability to learn from what others do, and reject or adapt it to his own needs; and a basic confidence in his own position as a free and equal member of the society, who values others and is valued by them for what he does and not for what he obtains.⁴⁷

But the existing system fails to do these things in several respects. First, it does not encourage the "integration of pupils into the society they will enter."⁴⁸ It instead encourages "attitudes of inequality, intellectual arrogance and intense individualism."⁴⁹ This, it is stated, is because the system is elitist, "designed to meet the interests and needs of a very small proportion of those who enter the school system."⁵⁰ It is divorcing the participants from the society for which they are supposed to be prepared.

Second, the existing system generates a sense of failure in those who do not go on to secondary schooling; and those who do go on have a sense of having "deserved a prize...high wages, comfortable employment in towns and personal status in society."⁵¹

Third, the existing system encourages the growth of a class structure in the society, removing the healthiest and strongest young men and women from productive work, and allowing them to be consumers of other people's labor.

Finally, the existing system encourages the idea that "all knowledge that is worthwhile is acquired from books or from 'educated people.'"⁵²

The question is raised: "Can these faults be corrected?"⁵³ And the answer given is that changes must be made in the content of the curriculum, the organization of the schools and the entry age to primary school. Primary school, entered at seven years of age, is to be a complete education in itself, not a preparation for secondary schooling. It is to

prepare people for life and service in the villages and the rural areas....publicly provided "education for education's sake" must be general education for the masses. Further education for a selected few must be education for service to the many.⁵⁴

Every school should also be a farm and a part of the larger community, so that "the school community should consist of people who are both teachers and farmers, and pupils and farmers."⁵⁵

Although the problems of examinations and the question of selection procedures are recognized, action on these two items is postponed to some later date.⁵⁶

Implication of "Education for Self-Reliance"

In examining this document at some length, my purpose has been to show the role that education is expected to play in the intended and aspired to socialist state. It is expected primarily to inculcate values and attitudes that are not at present strongly stressed by schools--equality, cooperativeness, intellectual independence, and also to integrate the participants into the envisaged society.

It is not my concern to question the assumptions made about traditional education,⁵⁷ or the criticisms made of colonial education. These are historical questions which do not fall within the scope of this study. I accept as valid the criticisms made of the existing system. Nor is my concern with how these proposed changes are to be or are being implemented. My concern rather is with the prior question of whether these changes are sufficient to correct the faults listed--elitism, bookishness and divisiveness.

With regard to the question of implementation, one should note that many of the principles and objectives embodied in "Education for Self-Reliance" are not new or unique, even in Tanzania's history, despite the criticisms made of the colonial system. The Phelps-Stokes Committee Report of 1925 recommended that education should be adapted

to local conditions, and the Middle School Syllabus of 1952, with a marked agricultural emphasis, was an endeavor to prepare pupils for life in a rural community.⁵⁸ A major reason for the failure of these attempts was that, as it is succinctly put in "Education for Self-Reliance,"

Individually and collectively we have in practice thought of education as a training for the skills required to earn high salaries in the modern sector of our economy.⁵⁹

While there are many problems attendant upon this latest attempt to make schools more relevant to rural living, including the problem of the attitude of the implementers who were educated under a different ideology, the view of education as a means to high status still remains the major problem. One should not of course predict another failure; the principles underlying the society have been changed (at least at an official level) and many practices reflect this change. As the policy of a national, not a colonial, government, it may be expected to find greater acceptance and less explicit resistance.

The changes envisaged are much broader than in the previous endeavors and are designed to fit in and be aligned with the changes envisaged in the society as a whole. I do not believe, however, that the changes envisaged go far enough: they may be necessary but they are not sufficient, as long as certain other practices, such as those relating to examinations and selection procedures, remain unchanged.

In making this claim, let me stress again that I am not questioning whether the changes envisaged are feasible or can in reality be implemented. Rather, I am asserting that changes in the way schools are run and changes in the things that pupils do and study--that is, changes in modes of behavior in the schools--are not sufficient to change the attitudes and subsequent behavior of the pupils toward schooling and toward society in the desired way.

As long as certain other modes of behavior, such as those attendant upon examinations and selection for further schooling and occupations, remain virtually unchanged, there is not a sufficient "fit" between the realms of conduct and of meanings. Certain modes of behavior are to be changed in order to change certain meanings: schools are to be reorganized in order to inculcate attitudes of cooperation and values of equality and intrinsic personal worth. If certain other modes of behavior, such as competitiveness engendered by examinations and selection procedures, remain unchanged, these unchanged modes of behavior will be in conflict with those ostensibly to be encouraged, such as cooperativeness, and will inhibit the inculcation of values of equality and of socialism.

This conflict between conduct and meanings is heightened because there is also a conflict in the means-ends relationship. Examinations as a means of social selection and differentiation are in conflict with the end or goal that is desired and intended--a socialist state.

Let me begin to substantiate my assertion. It will be recalled that in Chapter I it was shown that the various functions of education are potentially in conflict with one another, and that as these conflicts are realized (made real), schools can become social problems in and of themselves. From the viewpoint of the four major functions outlined in Chapter I--integrative, instrumental, social reform, individual-centered--let me examine the intentions of "Education for Self-Reliance."

The individual-centered function is to be deemphasized; the needs and desires of the individual are to be met only in so far as he is able to contribute to the welfare of others. That is, the needs as perceived by the individual are subordinated to the needs of the nation, as perceived in terms of manpower requirements. Cooperative endeavor is to be stressed over individual advancement.

The instrumental function of allocating persons to roles in society and equipping them with the appropriate skills is twofold: complete and terminal primary schooling for those who are to become farmers; secondary and higher levels of schooling for those few who are to serve the many, who are selected and certified for specific roles in society, as determined by manpower requirements.

The integrative function is to encourage "the total commitment to the community" and the acceptance by all of their allotted places in society. It is also to integrate the schools and their participants into the larger, predominantly rural peasant society.

The social reform function is to effect a break with the past--especially with the recent colonial past--where the past is no longer acceptable to the aspired-to socialist future. That is, it is to effect a transformation of traditional farming methods and a rejection of "capitalist" values of individualism and personal worth as measured by what a person obtains as against what he does.

In effect, the intention of "Education for Self-Reliance" is to emphasize the integrative and social reform functions (we may designate these as primary functions) and to deemphasize the instrumental and individual-centered functions (secondary functions).

In implementing these intentions--that is, operationalizing these functions--the potential conflict is made real. Now, it would be possible to illustrate the realization of the potential conflict among these functions in several ways. One could for example compare the formal and informal aspects of education, schooling and literacy campaigns, general and vocational education, primary and secondary schooling.

In this study, however, I shall focus attention on the role of examinations and their translation into certificates (the prime representatives of the instrumental function), both in the schools and in the society. I shall do this for three reasons. The first is to show how the conflicts among the functions result in a displacement of the functions designated above as primary by those designated above as secondary.

The second reason is to show that changes in the content and organization of schools may be necessary, but they are not sufficient to inculcate a sense of commitment to the total community or to change student and community attitudes toward examinations and certificates, the means which continue to be used to distribute unequal life chances. It is these means, rather than education as a means to socialism and self-reliance, that retain their importance over and above the national aspirations that remain at the level of intentions, exhortations and partial implementation and that have yet to become fully legitimated and acted upon "shared meanings."

The third reason for focusing on examinations and certificates is to show that action on examinations and certificates should precede action on other school matters because they are a leverage point which would facilitate the implementation of the changes that are envisaged by Tanzania in the schools and the society.

NOTES TO CHAPTER II

¹"The Problems of the Least Developed Countries," OECD Observer, No. 61, December 1972. A resume of part of the report, Development Co-operation 1972, by Edwin M. Martin, Chairman of OECD Development Assistance Committee (OECD, November 1972), p. 9. Figures are for 1968.

²Ibid., pp. 6-8.

³Cameron and Dodd, Society, Schools and Progress, pp. 7-10.

⁴Ibid., p. 15.

⁵Ibid., p. 22.

⁶OECD Observer, p. 9.

⁷Cameron and Dodd, Society, Schools and Progress, p. 10.

⁸OECD Observer, p. 8.

⁹Cameron and Dodd, Society, Schools and Progress, p. 202.

¹⁰This refers only to mainland Tanzania, i.e., Tanganyika.

¹¹In 1961 the titular head of the country was the British monarch represented by a Governor-General; with republican status in 1962, an elected president replaced the Governor-General.

¹²The administrative policy of Germany was one of direct rule; that of Britain from Cameron's governorship in 1926 was one of indirect rule. German involvement in the administration of schools and opposition to missionary schools ensured a greater British involvement in education than occurred in other British territories. See: Cameron and Dodd, Society, Schools and Progress, p. 235.

¹³Cf. the emotional ties with "our kith and kin" which continue to divide British parliamentary opinion over what action should be taken over Rhodesia's Unilateral Declaration of Independence in 1965.

14 Julius Nyerere, "The Arusha Declaration," in Ujamaa--Essays on Socialism (Dar-es-Salaam: Oxford Univ. Press, 1968), pp. 13-37.

15 Julius Nyerere, "Ujamaa: The Basis of African Socialism," in Ujamaa, pp. 1-12.

16 Fred G. Burke, "Tanganyika: The Search for Ujamaa," in African Socialism, ed. by William H. Friedland and Carl G. Rosberg, Jr. (Stanford: Stanford Univ. Press, 1964), pp. 196, 219.

17 Nyerere, "Arusha Declaration," Ujamaa, pp. 15-16.

18 Ibid., p. 18.

19 Ibid., pp. 22-23, 25.

20 Ibid., p. 28.

21 Ibid., p. 28ff.

22 Ibid., p. 29.

23 Ibid., p. 32ff. (*Italics in the original.*)

24 The lowest level, the 10-house cell, is a sub-unit of TANU, the national political party, and is the basic unit of the political structure in the villages. See: Clyde R. Ingle, "The Ten-House Cell System in Tanzania: A Consideration of an Emerging Village Institution," in Journal of Developing Areas, No. 6 (January 1972), pp. 211-226.

25 A large number of students protested against the terms of their national service, which were that on completion of their studies they were to spend 21 months in directed civilian employment. When they presented their grievances to Nyerere, he reacted very strongly by sending 300 of them home. This crisis is thought to be a major factor in the re-thinking and formulation of national policy of which the Arusha Declaration is the clearest example.

26 Cameron and Dodd, Society, Schools and Progress, p. 220.

27 For an example of the inadequacies of GNP, see: Simon M. Mbilinyi, "Rural Development and Rural Employment Generation: Lessons from Experimentation in Tanzania." Paper presented at the Annual Meeting, African Studies Association, Philadelphia, Nov. 1972 (mimeo.), p. 4. Mbilinyi points out that the national accounts specifically exclude from GNP calculations a large part of non-farm activities in

the rural areas such as the building of houses, processing of food-stuffs, brewing beer, making of utensils and handicrafts. This is similar to the exclusion of housewives (but the inclusion of paid housekeepers) in United States national accounts; but since the majority of Tanzanians live in the rural areas this is a much more serious omission.

28. Nyerere, "Ujamaa," Ujamaa, p. 1.

29. Nyerere, "Arusha Declaration," Ujamaa, p. 17.

30. There is no direct translation of ujamaa; while it is derived from "familyhood," it is also used interchangeably with Tanzanian "socialism."

31. Nyerere, "Socialism and Rural Development," Ujamaa, pp. 106-108.

32. Ibid., p. 110.

33. Ibid., pp. 108-110.

34. Ibid., p. 110. For a discussion of the myth of traditional African socialism and its impracticality in dealing with specific problems versus its role as an instrument of policy at an ideological level, see: Igor Kopytoff, "Socialism and Traditional African Societies" in Friedland and Rosberg, African Socialism, pp. 53-62.

35. Cameron and Dodd, Society, Schools and Progress, p. 156.

36. Cf. for example Malawi, where President Banda is reputed to have said that Malawi was too poor to have principles, and thus justifies his diplomatic and trade relations with South Africa, contrary to OAU policies.

37. Nyerere, "Education for Self-Reliance," pp. 44-75, and "Socialism and Rural Development," pp. 106-144, Ujamaa.

38. Nyerere, "Socialism and Rural Development," Ujamaa, p. 143.

39. Africa, No. 18, February 1973, p. 49. Figures of 4400 villages and 11% of the population are given in: Jean de la Gueriviere, "The Making of African Socialism: Nyerere's Tanzania," Le Monde section of the Manchester Guardian Weekly, Vol. 108, No. 2, 6 January 1973.

⁴⁰The State Trading Corporation formed in 1967 is being disbanded and replaced by a Board of Internal Trade which is to supervise the 24 trading organizations created out of the STC. These organizations are to be "small trading groups for easy control, manageable units for profitability and service to the people, and small units for easy participation in management by the workers." "Tanzania: Trade Reform," Africa, No. 22, June 1973, pp. 62-63.

⁴¹Nyerere, "The Purpose is Man," Ujamaa, p. 100.

⁴²The Tan-Zam railway is primarily to benefit Zambia, which is landlocked and whose other rail links are through Rhodesia and Portuguese territories. While most of Zambia's trade has had to pass through Rhodesia, it has been obliged to give Rhodesia convertible currency which undermines in principle and in practice the UN resolution for economic sanctions against Rhodesia. When the railway was first mooted in 1967, British and American experts advised that it would be too costly and therefore unfeasible. Only the Chinese tendered for the contract and in addition offered a long-term soft loan to cover the costs of construction. The interest-free loan of \$400 million is to be repaid by Tanzania and Zambia on a 50-50 basis over 30 years, beginning in 2038. See: de la Gueriviere, "The Making of African Socialism."

⁴³Africa, No. 18, February 1973, p. 49.

⁴⁴Nyerere, "Education for Self-Reliance," Ujamaa, p. 47.

⁴⁵Ibid., p. 50.

⁴⁶Ibid., p. 52.

⁴⁷Ibid., p. 53.

⁴⁸Ibid., p. 54.

⁴⁹Ibid.

⁵⁰Ibid.

⁵¹Ibid., p. 55.

⁵²Ibid., p. 56.

⁵³Ibid., p. 60.

⁵⁴Ibid., p. 62.

⁵⁵Ibid., p. 64.

⁵⁶Ibid., pp. 63, 71.

⁵⁷For a comment on this, see: Philip Foster, "Education for Self-Reliance: A Critical Evaluation," in Education in Africa, ed. by Richard Jolly (Nairobi: East African Publishing House, 1969), p. 83ff.

⁵⁸See: W. A. Dodd, Education for Self-Reliance in Tanzania: A Study of Its Vocational Aspects (New York: Teachers College Press, 1969).

⁵⁹Nyerere, "Education for Self-Reliance," Ujamaa, p. 44.

CHAPTER III

CERTIFICATION

In this chapter I wish to focus on certification in a broad context and to analyze the extensive influence this institution has on both education and society. The purpose of this discussion is not to argue that certification is inherently "bad" or defective, but rather to show its limitations and the difficulties that are associated with it as it appears to be used more and more frequently. I shall take up the question of examinations and certificates in the Tanzanian context in the next chapter.

Not every society is beset by difficulties created by examinations in its school system. In some societies, where an intellectual elite is to be selected, the instrumental function is designated as a primary and not a secondary function. In others, there is no nationwide examination system, and access to further schooling is relatively open, with opportunities created and justified on the grounds of social demand rather than on projections of manpower requirements.

Whether examinations create difficulties within the school system or not, every society is beset with difficulties arising from certificates and the allocation of high status--the non-educational

benefits of society. Certificates are a means of legitimating educational, especially academic, success. They also serve as a means of selection into various occupations and thus become symbols of social status. As the interface between school and occupation they are a linking mechanism between education and society. And the practice of certification is almost always accepted unconsciously and uncritically.¹

Certification is a Janus-like institution, an interface between education on the one side and society on the other. It may be broadly defined, in this context, as the interrelationship between examinations, selection and certificates. It includes the certifying process, the certificates that are the product of this process, and the use made of these products. It may be likened to a knot or a tangle, a point at which the individual, the educational institutions and the society are all tied together. In order to untangle this knot, the following questions need to be addressed: How and why are certificates important to society? What are certificates--and what are they not? How are they obtained? How are they used? What are the effects of certificates--on the individual and on the society?

How and Why Are Certificates Important to Society?

Every society has had some form of education. The form has varied with the society. With the increased complexity of a large

society and the emergence of schools and a formal educational system, a convenient currency --a medium of exchange--has been utilized as a means to allow persons with similar experiences to move among the formal institutions of the system. A small homogeneous folk society, where the family was the main educational institution, had no need for such a currency.

Moreover, every society has had some form of occupational specialization. In a small folk society, there might be a division and specialization of labor between men and women. Or there might be a few occupations, such as that of blacksmith, witchdoctor or chief, which required greater specialization and where entry and training were often restricted to those born into a particular family or clan. As society has become more complex and as occupations have become increasingly specialized, a convenient currency--a description of abilities--has been utilized as a means of distinguishing among individuals with different experiences and abilities. In a small society, word of mouth was sufficient for this purpose, and there was no need for such a currency.

In the "modern industrial society" of today such currencies may not be needed, but they are convenient and are seen to serve a useful purpose. Unfortunately, both currencies--medium of exchange and description of abilities--are referred to as certificates, and the differences between them have become blurred and confused. Educational certificates which are a means of comparing and grouping

individuals of similar experience are also treated as occupational certificates which are a means of differentiating among individuals with different experiences and abilities.

Certificates also serve a third purpose, related to the allocation of status. Every society has had some form of status hierarchy based on such things as wealth, power, wisdom and excellence. Often there are several overlapping hierarchies. High status is accorded to people with abilities or assets that are thought to be important to society and/or that are relatively scarce in the society. Lower status is accorded to people with abilities and skills that are thought to be less important and that are more readily available. A witchdoctor or a shaman in a pre-literate society was accorded high status--he had knowledge and skills that were scarce and thought to be important for everyone in the society. An excellent hunter or a warrior in the same society might also be accorded high status for his particular knowledge and skills. And the elderly of the society might also be held in high esteem as the repositories of the lore and law of the society. In such a society status might be ascribed and/or achieved, and there might be several overlapping hierarchies.

The feudal system of the medieval period accorded high status to power and wealth, especially where these were inherited. Status was ascribed, it was seldom achieved, and the structure of the hierarchy was unambiguously stratified.

Today, with the rise of egalitarianism, the means of according status is ostensibly through personal achievement and/or merit, not through ascription. High status is largely defined by power, wealth and occupation. Wealth, increasingly dependent on salaries, is coming to be related to occupation. And high status occupations are largely defined by the number of years of formal schooling required before entry to them--that is, by the attainment of an educational certificate.²

There is no necessary reason why a single means should be used to achieve all three purposes--movement within the educational system, differentiation among occupations, and allocation of social status. But there is a tendency today to use a single means for all three. That is, certificates of the educational system are used as the basis for occupational differences which are used as the basis for status--the non-educational benefits of society. Certificates then have become very important to society, not least because it is commonly believed that, though certificates, society can equitably and efficiently allocate social status.

Others have pointed to some of the peculiar practices surrounding certificates. Ivar Berg's Education and Jobs: The Great Training Robbery³ and John Keats' The Sheepskin Psychosis⁴ deplore what they describe. Jencks and Riesman, in The Academic Revolution, note in passing that "there is no necessary reason for America to entrust both the education and the certification of the young to the same

institutions."⁵ The Huberman report (suppressed by the sponsor, Unesco), Reflections on the Democratization of Secondary and Higher Education, claims that the key to the problem of equality in education is diplomas and certificates. Unfortunately, the report's solution to the problem is confined to the simple statement, "Let us suppose that we abolish the baccalaureat degree.... [then it can be left to] the employer to measure the abilities of candidates."⁶ The report makes no suggestions as to how to bring about such an abolition, nor does it consider the consequences of such an abolition.

Ashby states:

The pursuit of non-vocational higher education solely in order to get certification for a job must be resisted. It is, of course, the employers who must be reformed first. They are doing a great disservice to higher education by using degrees and diplomas, which are quite irrelevant, for the jobs they are filling, as filters for selecting candidates.⁷

And Miller, in "Breaking the Credentials Barrier," argues that "there should be a general downgrading of the importance of education as the major credential. Experience and performance should gain greater importance."⁸ Miller recommends multiplying the number of credential channels by the creation of a second chance university.⁹ Michael Young's satirical essay, The Rise of the Meritocracy,¹⁰ is perhaps the most thought-provoking on the issue of a single hierarchy of status.

But these are descriptions and prescriptions, particularly of what employers are or ought to be doing. I intend to go further

in the analysis and, in the context of Tanzania, will also explore possible alternatives and tentative solutions, not prescriptions, to this crucial problem.

What Are Certificates--And What Are They Not?

There are several kinds of certificates. First, there are birth, death, marriage and vaccination certificates. There are, second, certificates which are awarded for gaining a prominent position in a competition, such as first, second or third place in a dancing, riding, or athletic competition. And, third, there are certificates, diplomas and degrees that are awarded by educational institutions, such as schools, colleges and universities, and by licensing authorities, such as Bar and other professional associations. Our concern here is with the third kind, with educational certificates only.

The Oxford English Dictionary definition of certificate is

a document wherein a fact is formally certified or attested; a document certifying the status or acquirements of the bearer, or his fulfilment of conditions which authorize him to act or practise in a specified way; hence, often equal to licence.

and of certification is:

information making one certain of a fact, etc.; certain notification or notice. the action of certifying or guaranteeing the truth of anything; attestation. the action of making (a person) certain or sure; assurance.¹¹

Certificates are products, they are indicators of a completed process. Having the same etymological root as "certain," they attest to a fact, and they offer assurance and certainty.

Some certificates clearly do attest to a fact. They are certificates of attainment, indicating the level of schooling that has been completed. A high school diploma is such a certificate. Its relevance is most clearly to the past, to what has been completed. These certificates are general certificates, they are a medium of exchange for usage within the educational system, for comparing persons with similar experiences. They are not clearly vocational (that is, they are not a preparation for an occupation) and they are obtained following a course of study or schooling.

Other certificates are clearly certificates of authorization. They attest to the fulfillment of conditions which give authority to practice certain occupations. That is, they attest to the satisfaction of pre-conditions--for example, a teaching certificate, a doctor's license to practice medicine. In attesting to the satisfaction of pre-conditions, these certificates indicate potential ability but do not attest to actual ability or to competence, as these are acquired over time and with practice. That these certificates indicate potential ability is recognized, for example, in the requirement that doctors spend a period of time in an internship (that is, under supervision) after they have satisfied the pre-conditions and have acquired their medical degree. It is also becoming recognized that certificates of this nature become obsolete and that there is a need to update them. These certificates, in summary, have relevance to the future, they are preparation for an occupation, a license. They are

specific certificates, a description of abilities, used for distinguishing among persons with different experiences, and they are usually obtained following a course of study, training and on-the-job experience.

Report cards are similar to certificates since they are used as a medium of exchange within the educational system, especially in primary and secondary schools. They are not, however, certificates. A report card is essentially a progress report about an individual within the educational system. It is of prime value to the individual to whom it relates--the student; it will probably have some value to the student's parents; and it may possibly have value for the student's teachers in the next level of schooling. It has specific value rather than general value, indicating as it does particular areas of personal strength and weakness. It is subject to questioning and, in extreme cases, of reevaluation. Its usefulness is superseded by the completion of the next level and it is modified by further progress. It is in effect an indicator of the process of schooling. A certificate, in contrast, is of value to individuals other than the holder, because it puts the holder into a position for comparison with others on general grounds. It is fixed in time; modification is only possible through addition, not withdrawal. It is an indicator of a product. All individuals in a particular level are issued report cards but only those who successfully complete a course are issued certificates. The report card assumes that an individual will continue to the next

level (even without automatic promotion, the number of repeaters is small), while the certificate does not assume the next level. In short, the report card assumes the continuity of the process while the certificate assumes the completion of the process.

A distinction must also be made between certificates and credentials. Credentials refer to a particular person and only to that person,¹² whereas a certificate refers to an individual as one of a group of certificate-holders. Thus, credentials are not certificates.

Thus, the Oxford English Dictionary defines credential as:

Recommending or entitling to credit or confidence. Letters or written warrants recommending or entitling the bearer to credit or confidence; "letters of credence"; a letter of recommendation or introduction; esp. one given by a government to an ambassador, or envoy.¹³

Having the same etymological root as credence, credentials are recommendations based on trust, belief and confidence. Anyone may write a letter of recommendation or of reference for another person. The credential may describe the person's particular abilities and competencies to the reader, who has only the writer's personal assurance that it is an apt description of the person recommended. For the reader to obtain any reliability from the credential, he needs to know something of and have confidence in the writer. The credential is, in this sense, a letter of introduction bearing the writer's personal backing and assurance. For the reader of numerous credentials from unknown writers, the credential serves to

flesh out the human qualities of the person described therein, but the reader is awash in personal subjective judgments and beliefs. The credential attests only to the fact that the writer has known, in some capacity, the person he is recommending. While the credential may be limited as a guarantee of anything measurable, its value lies in its ability to address the "whole person" and the personal trust and confidence that are needed for social interaction.

The distinction made here between certificates and credentials is important: they are different and are used in different ways. But there is a tendency to use the terms certification and credentialism interchangeably. In much of the literature about credentialism, it is actually certificates, diplomas and degrees that are referred to. Marien, in "Beyond Credentialism: The Future of Social Selection," writes:

Among the many selection mechanisms presently employed, the greatest emphasis is on diplomas, and "credentialism" is therefore the best term for the present system of social selection.¹⁴

I am not convinced, however, that credentialism is the best term. Hapgood's "diplomaism"¹⁵ seems much more appropriate. I shall, however, use the term certification in order to be able to distinguish between the use of certificates and the use of credentials. To give an example: An applicant for a job is usually asked for both certificates and credentials; that is, he is asked for evidence of an educational level completed and for letters of reference or recommendation.

Given the difficulties of evaluating credentials, certificates (with their built-in comparability) are usually treated as the primary factors in selection. A certificate may be necessary for a job but it is not sufficient. In a few cases, an applicant's credentials may be sufficient; that is, a person may be hired or appointed even though he/she does not have the certificates that are usually required for such an appointment.

How Are Certificates Obtained?

The way in which certificates are obtained is an important societal issue because it publicly acknowledges the acquisition of certain knowledge and skills, not just any knowledge and skills. The way in which certificates are obtained is also an issue because only certain prescribed ways of acquiring knowledge and skills are deemed legitimate. Certification then is important to society because it is the legitimation of acquiring, in particular ways, particular knowledge and skills, to which is accorded high status.¹⁶

Certificates are usually acquired at the completion of a course of study or training. The determination of completion is usually made by those who already hold the certificate. And the course is usually completed within an institutional, especially an educational, setting. Note that the use of "usually" is deliberate, for, although there are prescribed ways of acquiring certificates, these prescriptions are not hard and fast. Some are considered

legitimate, some are not; and some appear to be more legitimate than others.

The Institutional Setting

Consider first the legitimacy of the institutional setting. Let us suppose that a boy wishes to become a forest ranger. He has obtained the highest certificate of competency in woodcraftsmanship that is awarded by the Boy Scouts of America. This certificate, however, would be of less value to him than a high school diploma, because the employment market does not recognize the Boy Scouts as a certifying agency, while it does recognize the school as a certifying agency. Let us suppose further that the boy has dropped out of high school but now finds that he needs the high school diploma. He can either return to school or he can take a high school equivalency examination and gain a diploma in this way. The certificate of competency in woodcraftsmanship has no legitimacy; the high school equivalency diploma is legitimate; since it is a second chance diploma, however, it is sometimes treated as being less legitimate than a high school diploma.

Or take the rather different case of a man who wishes to become a lawyer. In order to practice as a lawyer, he must pass the Bar Association examinations. It is not necessary to study for these examinations in a law school or to get a law degree. Yet, increasingly, persons who wish to become lawyers do study in law schools and do get

law degrees; that is, they prepare for the Bar Association examinations in a formal setting. In other words, increasingly it is more common and thereby considered more legitimate to study in a school or college than to acquire the same knowledge and skills through private study or practical experience.

Schools and colleges, by tradition, have a theoretical rather than a practical orientation. They are, as it were, once removed from the actual performance arena. Thus, they engage in preparation for an occupation rather than in training for an occupation. There is a limit to the amount of training they are able to engage in, and some training will of necessity have to be undertaken once an individual has left the institutional setting and begun work in the "real" world.

The increasing acceptance and legitimacy of schools and colleges as the major certifying agencies encourages the acquisition of a limited array of knowledge and skills in a formal educational setting. The acquisition of the same or even a broader array of knowledge and skills in an informal setting is in effect discouraged and at times even disregarded.

Determination of Completion by Teachers

The determination of satisfactory completion of work for a certificate is usually made by those already certified and therefore supposedly competent in the area in which certification is occurring. In the case of a high school diploma, the determination is made by

certified teachers who have at some time previously obtained a high school diploma. In the case of the Bar Association examination, the determination is by the Bar Association, which is comprised of practicing lawyers. In the case of the certifying of teachers, the determination is made by professors of education, usually along state guidelines and with state authorization. The professors of education may or may not have experience in teaching in schools; their experience may be limited to lecturing in colleges. The same might be said of professors of, say, mechanical engineering; their experience may be limited to studying and lecturing about mechanical engineering. Teachers in a college may be certified, but that does not necessarily mean that they are competent in the occupations for which they are preparing students.

Increasingly, the determination of completion is made by teachers, not by practitioners. As certificates are acquired through "multiversities," contact with and determination of satisfactory completion by successful practitioners is reduced. Learning by emulation and contact with a master-craftsman or a master-teacher (in the non-pedagogical sense) is all but eliminated, retained only for such vocations as that of concert violinist or pianist. Even the acquisition of specific certificates, such as those for auto mechanics, that were previously acquired through apprenticeships and supervised on-the-job training, are now being acquired at institutions such as community colleges.

Teachers who are not also practitioners are limited in their experience and by the institutional setting. They are inevitably obliged to offer academic instruction rather than practical experience. They can teach about how to do something, but students cannot learn from them how to do it. Teaching how to do something is limited to preferred guidelines or recommended recipes.

There are two other limitations on teachers as they determine the satisfactory completion of a course--the effect of the self-fulfilling prophecy and a concern for inputs rather than outputs. Those whom the teacher predicts to be successful completers, on the basis of many different criteria from IQ and other test scores to students' speech, dress and behavior patterns, do indeed become successful completers. Those predicted to fail do indeed fail, convinced perhaps of their inability to do anything else. The measure of successful completion is often the measure of prior behavioral patterns. Teachers are very often more concerned with what students appear to be rather than with what students can actually become; their concern is more with what a student knows when he enters the course than with what a student has learned from the course. Teachers as a general rule do not feel responsible or accountable for those who fail to complete the course successfully.

Determination of Completion by Examinations

The limitations on the determination of successful completion are heightened further by the use made of examinations. Examinations

have two purposes: to assess what has been learned, and to some extent to motivate learning; and to differentiate among students.¹⁷ That is, they are used as an assessment of an individual's achievement and as a comparative assessment of individuals for selection purposes. Ideally, the different purposes are served by different kinds of examinations, but it is common for a single examination to be used for both.

Consider the effects of examinations on what is learned. First, examinations create a hierarchy of what shall be learned. Subjects that are to be examined take on a greater importance than subjects that are not to be examined. Elementary schools put a great deal more emphasis on the 3R's than on social and natural sciences, not only because the 3R's may be important for further schooling, but also because they are examined frequently by standardized tests. And the particular emphasis is on what is to be tested rather than on what is actually useful and usable beyond the confines of the classroom.

Second, the content of the subjects to be examined is affected by the hierarchy of schooling, and the particular focus is geared to the next level of schooling. What is learned in high school is thought to be important as preparation for what will be taught at college. There is a backwash effect so that syllabuses tend to be preparatory for the next level and only partially related to the particular needs of any level or the world outside.

Third, examinations tend to establish rather narrow limits of what may be learned. Emphasis tends to be given to cognitive and motor skills to the exclusion of affective skills. Education may be thought of as the acquisition of knowledge and skills, but it is only certain kinds of knowledge and skills that are examined. Knowledge and skills can relate to ideas, to people and to things. For the most part, examinations measure only knowledge and skills in relation to ideas and to things, not to knowledge and skills relating to people. Further, there is a tendency for examinations to measure knowledge and skills relating only to certain ideas and to certain things. There tends to be greater emphasis on knowledge about ideas rather than skills in using ideas, and greater emphasis on skills in dealing with things rather than knowledge about things. Thus, the tendency is to treat the study of history as a description of events rather than an exploration of the ideas prevalent at the time of the events or their relevance to events today. Training in auto mechanics tends to deal more with automobiles than with mechanics. This is in part a result of a false separation between ideas and things, of an emphasis on the differences between thinkers and doers rather than on their similarities and complementarity. But it is also a result of the problems of measurability--we tend to examine only what is amenable to measurement, and to disregard that which needs careful evaluation or that which is difficult to measure.

These three factors--the hierarchy of what shall be learned, the content of the subjects, and the measurability of what is to be learned--together encourage the acquisition of only certain knowledge and skills.

Examinations also encourage intellectual conformity and tend to discourage originality, creativity, innovation and the expression of special aptitudes or abilities. The "right answer syndrome" may represent an overstatement about teaching practices, but the form of examinations (especially objective type tests) and the importance of examinations, leading as they do to certificates, tend to inhibit the exploration for different and alternative answers to questions and even the formulation of questions themselves.

To measure what each individual has learned may call for an individual assessment, such as an individual project-type examination. But almost all examinations are administered to a group of individuals. An examination that is a reliable measure of what a group of people has learned and that is used for the purpose of differentiation and selection is a fairly blunt instrument to measure what each individual has learned. In addition, by standardizing the results of the examination on some kind of normal distribution, some failures are inevitably presumed. It is not always clear whether those who fail the examination have failed to learn anything at all, or whether they are to be regarded only as less successful than others in their completion of the course.¹⁸

Thus, examinations are used more for their differentiating capacity than for their assessing capacity. That is, they are a means of differentiating and selecting among individuals rather than a means of assessing the knowledge and skills that any particular person has acquired.

Taking into consideration the institutional setting and the ways in which completion is determined by teachers and by examinations, the legitimate means of obtaining certificates are limited and limiting, both in terms of access to their acquisition and of what is actually being acquired. In short, certificates are indicators of only certain abilities or potentialities. They are most reliable as indicators of practical skills; they are less reliable as indicators of knowledge, since having knowledge and demonstrating knowledge in an examination are different from the case of practical skills; they are only oblique and unintentional as indicators of knowledge or skills in dealing with people. And certificates are increasingly acquired in impersonal, unconcrete (academic) and formalistic ways.

How Are Certificates Used?

We distinguished earlier between general and specific certificates. The use of specific certificates such as diplomas or degrees in hairdressing, auto mechanics, mechanical engineering and medicine is fairly straight-forward. They are used as prerequisites, licenses to practice, entry qualifications for specific occupations.

The use of general certificates such as high school diplomas, the General Certificate of Education and some bachelors' degrees, however, is less straight-forward. Although such certificates are used for movement within the educational system, they are also used as if they were prerequisites, entry qualifications to specific occupations. A great deal of confusion arises from this use of general certificates as both facts and licenses, as being relevant both to the past (to what has been completed) and to the future (to preparation for a particular occupation). One of the characteristics of all certificates is that they have, as it were, two sides or edges. But the use of both edges may be less justifiable for general certificates than for specific certificates. It is from the double-edged usage that a number of anomalies and ambiguities arise.

The Double-Edged Usage of Certificates

Completion and preparation.--The same certificate may be used as though it indicated both completion and preparation. That is, it may be used as an indicator of achievement and as a token of entry. In the case of the latter, it may be used to meet entry requirements for: (a) further study or schooling; that is, general, non-vocational education or the acquisition of knowledge and skills in theory; (b) training; that is, specific vocational education or the acquisition of knowledge and skills in practice; and (c) certain occupations; that is, vocations or professions.

A general certificate may be used as a token of entry for all three options. For example, in the United States a general BA may be used as a token of entry for graduate school to study, say, history or philosophy; or for training in the schools of education, law or business; or to become an insurance salesman. Strictly speaking, this general certificate has validity only as a token of entry for further study or schooling [that is, (a) above], because entry into either of the other two options requires particular skills to which the general certificate is unable to attest. When the general certificate is used as the token of entry for training and for occupations [that is, (b) and (c) above], then the certificate is being treated both as an assessment of past performance and as a predictor of future performance. A certificate may be a reliable predictor of future performance where the performance fields are related. That is, a general BA may be a reliable predictor for further study. (In this case, it has a degree of specificity that is similar to that of a medical license which may be a reliable predictor for medical practice.)

But certificates are also treated both as assessments of real ability in one field and as assessments of potential ability in another field. That is, a general certificate, although it does not imply or attest to particular skills, is often used as a means to select individuals for specialized training in specific skills or for specific occupations [that is, (b) and (c) above]. The assumption

underlying this practice seems to be that general intellectual ability, as implied by the general certificate, is more important in the acquisition of special skills than is special aptitude or ability in these skills. That is, it seems to be assumed that general intellectual ability is a reliable predictor of the acquisition of specialized skills. Since the special aptitudes and skills are not necessarily being measured, the validity of this assumption appears to be rather low. The general certificate, then, may not be a very reliable predictor or a valid requirement for entry to specialized training or to certain occupations.

The same certificate may be treated as though it assessed both study and training. But the theoretical component of a certificate is invariably much larger than the practical component. A teaching certificate which is acquired with a BA has a very small practical training component. It is often said that a teacher learns more about teaching in the first six weeks on the job than in four years in college. Whether there is any truth in this statement or not, it is clear that some things cannot be learned only through study. But a certificate is treated as though it attested to both study and training, to both theoretical and practical understanding.¹⁹

When treating the certificate as an indicator of a completed process, there is a tendency to assume the content within that process. The certificate is treated as a lump mass, and the completion is more important than the content. What seems to count most is the completion

of the program of study, not what has been studied or how it has been studied, superficially or in depth.

Thus, the practice of using a certificate, particularly a general one, as though it assessed both completion and preparation and as an indicator of achievement and as a token of entry, may be, at times, unreliable, unjustifiable and misleading. There are, however, further usages that may be described as double-edged also.

Preparation and requirement for an occupation.--A general certificate which is used as an entry qualification to an occupation may also be treated as the entry requirement for that occupation. That is to say, a formal educational qualification may be treated as though it were required by the occupation. For example, a BA may be used as an entry qualification to the occupation of selling insurance; it may also be treated as an entry requirement for that occupation.

There appears to be no necessary connection, however, between the general education attested to in the BA and the particular demands of the occupation--in this instance, selling insurance. Indeed, in this case, the entry qualification has been raised from a high school diploma to a BA over the past 25 to 30 years; but there does not appear to have been an equally significant increase in the demands made by the occupation on the individual. An insurance salesman still needs the same kind of personal qualities to sell his wares as he did 25 years ago, and he may or may not acquire these during his four years in

college. The raising of the entry qualification may be related more to the availability of larger numbers of individuals with BA's and to the raising of the status of the occupation than to the increased degree of difficulty or complexity in the occupation. Thus, in some cases an entry qualification in terms of formal education may not be clearly related to what is required in the way of knowledge, skills, aptitudes, and abilities by the occupation.

A different kind of difficulty arises from the use of specific certificates as both preparation and requirement for an occupation. There is an tendency to treat the specific certificate as though it were the only possible educational qualification and the only needed requirement for an occupation.

In the United States, for example, it is usual for the acquisition of a license to practice medicine to take a long time and to include a large component of general education--that is, four years of general education for a BA, three years of specialized training in a medical school, and one year of experience in an internship. In Britain, there is an alternative route. Some doctors acquire their licenses to practice by entering a teaching hospital immediately after secondary schooling and by completing a five-year course of specialized training which combines knowledge, skills and experience. The three components are not separated, and a year's internship is still required. Now, a case might be made that doctors who are to be general practitioners need and ought to spend a longer time in acquiring

their licenses than practitioners in other occupations. It is less easy to make a case for the particular mix of study, training and experience that is used as though it were the only set of requirements, the one "right" way. Using a single set of requirements, in effect, excludes the use of alternative mixes or sets of requirements.

The use of certificates, then, as both preparation and requirement for an occupation may impose, in the case of general certificates, artificial and sometimes unnecessary restraints on access to occupations, and may create, in the case of specific certificates, inflexible and at times inappropriate requirements for entry to occupations.

Effects on the individual and the society.--Other double-edged usages of certificates may be seen from the effects on and the viewpoints of the individual and the society.

A certificate may be used as an assessment of the individual and as a comparative assessment with other individuals. A certificate that is received with pride at a graduation ceremony may have only limited value to the person, however hard he worked for it and whatever it means to him personally. This is because others will use the certificate, not as an assessment of his particular and peculiar abilities or competencies, but as a means of comparing him with other individuals. That is, in principle a certificate cannot say much about an individual, except as one among a class or group of individuals. If his certificate is from a relatively unknown college, it will have a lower market value for him than one from a prestigious college or university.

Even if the certificate is treated as an assessment of what the individual has done, there is a tendency to treat this as an absolute measure of him, while for the most part, in obtaining the certificate, he has been measured against other individuals. That is, the certificate is gained as a relative measure. For example, to graduate magna cum laude indicates that, relative to other individuals in the college, the individual has, by certain criteria, been considered more successful. But not everyone can gain this award; there is a cut-off point, usually fixed on the assumption of a bell curve of normal distribution; and the criteria by which success is determined may be rather narrow and somewhat arbitrary from graduating class to graduating class. The certificate, then, reflects the abilities of the particular person only in relation to others, on a limited scale. Thus, a certificate may be a rather superficial and limited assessment of a person.

As indicated earlier, a general certificate may be used as a token of entry for study, training and certain occupations. A general certificate is of value to the individual in offering a number of options. Many students attend college because they have not yet decided what they want to do, what occupation they wish to enter. A college degree is a good way of "hedging their bets" and of keeping open their options until such time as they do decide or are obliged to decide about what occupation they wish to enter. In contrast, the general certificate is of less value to the employment sector of society

than is a specific certificate. A specific certificate is a more accurate "label" and reduces the employer's task by helping him recognize the certificate-holders who have the particular knowledge and skills he is seeking. Thus, a general certificate which offers a wide range of options is advantageous for the individual but is disadvantageous for the employer. It may aid the individual in postponing the making of a decision, but it muddies and lengthens the task of the employer in making a choice among many applicants.

Yet a further double-edged usage is that of treating a certificate as a measure of school achievement and also as a measure of the attainment of adulthood. A certificate given at the completion of secondary schooling is coincidental (perhaps not unintentionally) with the termination of youth and entry into adulthood. Adulthood seems to mean being all "done" with schooling. Students, whatever their age, are often treated as youths, that is, as not yet having attained adulthood. As certificates are becoming more important for entry to occupations, it is increasingly difficult for the uncertified to find employment. While the college student is reasonably assured of his emergence into a superior class of adulthood following his extended period of youth, the person without a high school diploma or employment may be made to feel outside of society and not yet a legitimate and responsible adult. This is perhaps best illustrated by the paternalism of some social workers when dealing with the poor and often "unschooled."

While other uses of certificates may exclude certain persons from study, training or occupation--and from social status, the use of certificates to withhold adult status is a most serious matter.

Summary.--A great deal of confusion results from what has been called here the double-edged usage of certificates. A certificate may be a fact, it may indeed attest to something, but it is used in a number of different ways. As a result, the meaning of a certificate, its "fact-ness," is no longer assured. The problem of meaning is at least partly acknowledged by the way that certificates are used together with credentials.

The Use of Certificates and Credentials

In order to understand how certificates and credentials are used together, it is necessary to consider this usage by individuals, by employers, and by society.

By individuals.--In the broadest sense, society uses certificates as a guarantee of social and especially economic expectations. In a complex society it is not possible to know a great deal about the many persons one meets and interacts with. There is not sufficient time to make the acquaintance of a person only to find out that one does not wish, for social and economic reasons, to prolong the acquaintanceship. This may become clearer with an example in the economic realm. When one needs the services of a particular person--say a plumber or a doctor, one may seek out not only a person who calls

himself a plumber or doctor but one who displays (often on his office wall) a certificate to back up his claim. In addition, however, one also inquires after his credentials. One asks one's friends about the efficiency and reliability of their plumber or doctor, since it is assumed that one's friends have the same kind of expectation as oneself.

That is, individuals differentiate among the certificates held, for example, between doctors and non-doctors, and then differentiate among the doctors on the basis of credentials, the personal recommendations of others. Note, too, that the certificates that are used as some form of guarantee are specific, not general, and are related to particular knowledge and skills.

In short, as individuals, we are careful to differentiate within a specific certificate-holding group by using credentials. Yet in the economic and social domains one differentiates less within than among levels of certificates.

By employers.--Employers use a particular certificate to differentiate among a group of people. In doing so, they tend to treat the "products" of the educational system less as people with ability or potentiality than as labelled packages. Like many labels, certificates do not always adequately identify the contents of the package, the person. The users of the labels--employers in the economic sector of society--have grown accustomed to the labels. They recognize the labels' inadequacy but find them a convenient screening device to

sort out, not those who would be most useful to them, but those who are likely to be the least useful. That is, certificates are often used as a sieve, as a means of negative selection, to pre-select rather than to select persons. This practice appears to be rather inefficient, not to say inequitable,²⁰ given that certificates are not always accurate or adequate reflectors of a person's ability or aptitude in a particular occupation. Moreover, there still remains the necessity of further selection from those who remain in the sieve.

The problems attendant upon this practice are highlighted in Berg's study, in which he indicates that the work force in the United States may be over-educated (or, more properly, over-schooled) due to the market preference of employers for increasingly certified employees (e.g., preferring a person with a BA to one with a high school diploma), whatever their suitability or the particular requirements of the employment situation.

Thus, employers differentiate among the certificates held, then they differentiate among the certificate-holding group to make a negative selection. The final choice or selection is made on the basis of credentials--letters of reference or recommendation.

Employers, however, may also use certificates to raise the status of an occupation. (This holds also for autonomous professional associations or guilds such as the American Medical Association and the Bar Association.) Using certificates in this way is made

possible by the growth of the educational system and thus by the large number of certified individuals available at a particular time.²¹ With the long-term effect of raising the entry level for certain occupations and for certain courses of specialized training, the general certificates come to be treated as relevant facts. However, their factual relevance is less related to what is implied or attested to by the certificate than to the number of individuals who hold the certificates as tokens of entry to the particular occupation or training course.

By society.--Certificates are used also by society as a means to distribute social status at an aggregate level. The argument is made that certificates which guarantee a person's competence, objectively determined,²² is a better way than others which are more subjective and more open to manipulation by those of one class, be it based on power, wealth and/or heredity. That is, it is argued that it is preferable to allocate status on the basis of achievement rather than ascription. Certificates, however, do not really guarantee a person's competence--the achievement they are related to is educational. Moreover, the use made of certificates in effect allocates status, not to individuals, but to broad occupational groups on the basis of educational attainment--that is, years of schooling.

There is a hierarchy of occupational status: those that "require" the least amount of formal education are categorized as

unskilled and are accorded low status--and low salaries; those that "require" the largest amount of formal education are categorized as professions and are accorded high status--and high salaries. The broad categories are: unskilled laborers, skilled and semi-skilled workers, technicians, management and administrative personnel, and professionals.²³ Within each broad category the status of an occupation may vary with time and location. For example, teachers today probably have a status different than they had formerly, and their status may vary in rural, suburban and inner city districts. But perhaps more important, the standing of a particular individual within an occupational category will be based also on what is known about him, on his personal achievement beyond the certificate he holds. For even a specific certificate cannot differentiate between competence and incompetence, between a "good" and a "bad" teacher, between a "good" and a "bad" doctor.

Thus, within each category of status finer differentiations are made by the use of credentials, not certificates. Certificates are indicators of the individual's place in the status hierarchy; credentials are indicators of the esteem in which a person is held.

By using certificates which represent years of schooling or educational attainment as the first criterion of status stratification, society is not able to accord status for competence or excellence in any and every occupation.²⁴ Where competence is recognized, there is a tendency to reward it by promotion, which is often a change in

occupation to one where the person may or may not be competent. The reward for being a "good" teacher is promotion to an administrative position which carries a higher salary, and therefore higher status; but the "good" teacher is not necessarily the "good" or even competent administrator--very different skills and knowledge are required. The reward for being a "good" plumber may mean more calls on his time and capabilities, and thus more money than his fellow plumbers earn. His fellow plumbers may find ways to recognize his superiority; but there is no way at present that he can be accorded the high status even of a "bad" doctor.

Society seems to be moving to a single hierarchy of status, in which competence and excellence in any field has less recognition than the single criterion of the educational certificate, which is an impersonal, inappropriate and at times irrelevant statement about a person's competence and/or ability to contribute to the society as a whole.

There is thus a weak link in the justification for allocating status on the basis of achievement--the assumption that certificates are able to attest to a person's competence or actual achievement. It is almost as if the certificates, as surrogate measures of persons, are accorded the high status. The persons themselves appear only to receive high status in accordance with their place on the educational ladder. It is as if status were ascribed by the certificate and only within the particular status group or stratum is a person able to earn or achieve a limited degree of further status in the form of esteem.

What Are the Effects of Certification?

The preceding is far from an exhaustive analysis of the knot of certification, but it does suggest some of the obstacles to unravelling the tangle and does indicate some of the limitations of certificates and some of the difficulties generated or associated with certification.

Certificates of the kind discussed here cannot offer the certainty and assurance that we tend to use them with. When dealing with a person, we recognize these limitations; when dealing with an individual or a group of people about whom little else is known, we do not always do this. Certificates also can offer little certainty about what people are likely to become, though specific certificates do offer greater assurance than do general certificates. In this aspect of its Janus-like character, certification is more reliable in looking backward at what has been completed and less reliable at looking forward at what may be achieved.

As an educational institution, certification has the effect of homogenizing individuals into groups in order to differentiate one group from another. The potential of education as a fundamentally diverse and personal experience is reduced as examination-oriented schools become instruments for conformity.

Certificates are used as surrogate measures of a person's potentialities and competencies; that is, of his benefits from education,

his acquisition (in prescribed ways or not) of knowledge and skills. But the certificate is a measure only of those benefits he has acquired in the prescribed way. It is a surrogate in that it is a substitute for direct and personal contact; and by being indirect and impersonal, it excludes many aspects of the person that makes a particular individual unique. Certificates tend to reduce persons to a single, maybe more manageable, dimension. They are unable to distinguish competence from incompetence, except at a gross level between those who do and those who do not hold the certificate. They are unable to attest to or recognize excellence.

Certificates as tokens of entry to certain courses of study or training or to certain occupations are subject to devaluation in times of inflation. The value of the certificate to the individual is relative to its market value--that is, relative to the number of people who hold such a certificate.

Educational institutions--especially colleges--are increasingly becoming licensing agencies for more and more occupations. My concern here is less for the educational institution and the notion of a college as an "ivory tower" than with the effect on the acquisition of occupational skills. As colleges are legitimated as licensing agents for an increasing number of occupations, few questions are raised about whether the skills are best acquired there or whether they may be more efficiently and effectively acquired elsewhere. Questions which

are raised seem largely to be rhetorical, because of the nature of the problem.

Is it not dangerously presumptuous to insist, despite our lack of understanding about the contribution of college schooling to occupational performance, that nevertheless, all professionals must pay a toll to the schools and the teachers?...Entrance to a career is through college, where schooling all too often is masked as education. Would not the colleges, teachers, students, and those who look forward to professional careers be better served if other entry ways were open, available and used?²⁵

As other entry ways such as apprenticeships and formalized, on-the-job training appear to be losing their legitimacy, occupational definitions (job descriptions) and entry requirements to these occupations are becoming more rigid and less flexible. The argument that occupations are becoming more specialized and complex does not seem to justify the use of entry requirements unless the certificates themselves are more specialized and specific. If occupations are becoming more specialized, there would seem to be a case for more specialized and direct training and for less general education. (The case for more general education throughout the population seems to address a different point.) In using certificates as entry requirements, there seems to be as great a danger of occupational ossification as of lowered standards of performance by including people who have acquired their knowledge and skills in unauthorized and unlegitimated ways. These persons may be equally--or even more--adept than those who are certified at adapting or adjusting themselves to the increasing complexity and specialization of the occupation.

Certificates are rather like paper money. They may be devalued. Their value is dependent on the current systems of beliefs, and on certain practices in the economic sector, of a particular society.

The use of certificates may be justified on the grounds of efficiency and equity. These are worthy ideals to aspire to. But it is open to question whether, in practice, either efficiency or equity is achieved. The use made of certificates as a screening device is not a very efficient means of selecting persons with the appropriate and relevant skills and knowledge. It may be a convenient and a cheaper means for employers to use in selecting persons than other means, which might include administering special aptitude or ability tests. But these alternative means might be more efficient in the long run in terms of the overall increase in productivity or in the effective operation of the economic undertaking. If, as Berg suggests, graduates tend to be more easily frustrated and dissatisfied with their jobs and have higher absentee and turnover rates in jobs than do non-graduates,²⁶ it may be more efficient to use means other than certificates in order to select persons who will get on with the job and do it well and competently. (Costs of training in educational institutions are now borne by individuals and the state, not by employers. It may be less costly, in terms of both money and time, to spread out the costs and institutions of training.)

Turning to the question of equity, given the way certificates are acquired and the way they are used as screening devices, they effectively exclude those individuals who have acquired knowledge and skills in unauthorized or unlegitimated ways. Further, the prescribed way of acquisition favors some abilities over others: a sequential lock-step system makes it difficult, but not impossible, to leave the system and then return at a later point in time; and the long time required to be spent as a student excludes some who cannot afford the real and opportunity costs involved and therefore cannot afford to aspire to the high status occupations. Parental wealth, attitudes and aspirations are important factors in the choice a person makes with regard to occupation and, thus, to status. In these respects, certification is not as equitable as might be expected. There is a tendency especially to exclude those from lower classes because of the high costs of obtaining certificates in formal educational institutions.

Finally, the use of certificates to allocate social status is not as achievement based or meritorious as might be expected. As the young lady said, "After all, a diploma or a degree is not the perfect vaccine against stupidity."²⁷ Certificates are not able to reward excellence in any and every field. There is indeed some difficulty in certificates recognizing competence, and unless competence or its potential is acquired legitimately, it passes without any recognition at all.

Summary

A number of difficulties arise from the institution of certification. It may be appropriate to ask whether these difficulties arise from the nature of certificates, the process by which they are acquired, or the uses made of them.

Certainly the greatest confusion seems to arise from the multiple uses made of certificates. With regard to the double-edged usage of certificates to look both backward and forward, the use of the forward-looking edge seems unjustified and unreliable in many cases. And since certificates are surrogate measures of a person, they may not tell the user the most important things he needs to know about the person certified.

The process by which certificates are acquired is limiting and limited. They are increasingly acquired in impersonal, unconcrete and formalistic settings. And alternative ways of acquiring the knowledge and skills implied by certificates are losing their legitimacy.

Given the nature of certificates, they are most reliable as indicators of knowledge and skills when they are most-specific. That some certificates are not clearly general or specific, or are not clearly related to further schooling or to specific occupations, adds to the difficulty.

It would thus seem that it is not possible to isolate any one of the three potential sources of difficulty--nature, process or

use--and to eliminate it. The difficulties would appear, instead, to result from the interaction and interrelationships of these three different aspects of certification.

What then, one might ask, might be done about certification?

One might recommend that certificates be used with greater caution than is currently the practice--perhaps used only with a strong dose of suspicion. Or one might recommend that alternative, legitimate ways of acquiring knowledge and skills be opened up--or re-opened, in some instances. Or one might recommend that certificates be made more specific. It is doubtful, however, if action on only one aspect would resolve the difficulties. In order to untangle the knot of certification, action would seem to be necessary on all three aspects.

Taking such action, however, is by no means a simple task. It is further complicated by two questions: How is it to be done? By whom? Possible action to make certificates more specific and to open up alternative, legitimate ways of acquiring certificates falls within the domain of concrete and identifiable educational and economic institutions. Caution in the use of certificates depends a great deal on the values and beliefs of a particular society as a whole, and thus action may be impeded by the difficulty in identifying and concretely assigning responsibility.

It is clear then that any specific action on the issue of certification is best discussed in a particular societal context.

For this purpose it is appropriate to return to the case of Tanzania, which provides a particular situation, with a clear articulation of social intentions. Thus, Chapter IV will discuss the problems of and difficulties arising from certification in the Tanzanian context.

NOTES TO CHAPTER III

¹Joseph A. Lauwerys and David G. Scanlon (eds.), Examinations, The World Year Book of Education, 1969 (New York: Harcourt, Brace and World, Inc., 1969). "[T]he importance of examinations grows, since success in them determines entry to higher education and thus to professional posts. They are therefore a major instrument of social mobility and promotion which affects social structure by applying criteria of selection nearly always accepted unconsciously and uncritically." (p. xi)

²See, for example: Edmund de S. Brunner and Sloan Wayland, "Education and Occupation," in Education, Economy, and Society, ed. by A. H. Halsey, Jean Floud and C. Arnold Anderson (New York: The Free Press, 1965), pp. 55-67. With regard to the prestige assigned to occupations in the United States over a relatively long period of time, see the summary of the National Opinion Research Corporation's findings in: Richard Sennett and Jonathan Cobb, The Hidden Injuries of Class (New York: Alfred A. Knopf, 1972), pp. 221-225. Of the top third of the 90 occupations ranked, almost all explicitly require some post-secondary schooling today; the obvious exceptions are the elected political offices, e.g., State Governor, U.S. Congressman.

³Ivar Berg, Education and Jobs: The Great Training Robbery (New York: Praeger Publishers, 1970).

⁴John Keats, The Sheepskin Psychosis (New York: Dell, 1965).

⁵Christopher Jencks and David Riesman, The Academic Revolution (New York: Doubleday, 1968), p. 62.

⁶Michael Huberman, Reflections on the Democratization of Secondary and Higher Education (Paris: Unesco, 1970), p. 17.

⁷Eric Ashby, "Should Degree Certification be Abolished?" Times Higher Educational Supplement, 15 September 1972, p.

⁸S. M. Miller, "Breaking the Credentials Barrier," a Ford Foundation Reprint of an address delivered in March 1967, p. 5.

⁹Ibid., p. 7.

¹⁰Michael Young, The Rise of the Meritocracy 1870-2033 (London: Penguin Books, 1961).

¹¹Definitions as used in law are omitted.

¹²A general distinction is made between person and individual. Individual is used as the statistical singular of people. Person is used to connote more than the individual, with some sense of the "whole person" who has many attributes and particular capabilities.

¹³There is no entry for credentialism.

¹⁴Michael Marien, "Beyond Credentialism: The Future of Social Selection," Social Policy, Vol. 2, No. 3 (Sept./Oct. 1971), p. 15.

¹⁵David Hapgood, Diplomatism (New York: Donald W. Brown, Inc., 1971).

¹⁶Legitimation and legitimacy are used, not in the sense of legalization and lawfulness, but to denote the increased usage and increased acceptance of a practice as right by society at large.

¹⁷J. L. Brereton, "Theories of Examinations," in Examinations, ed. by Lauwerys and Scanlon, p. 36.

¹⁸See also p. 75ff., a relative measure and an absolute measure of the individual.

¹⁹See also p. 62ff., the limits on practical training due to the institutional setting.

²⁰The case of Griggs et al. v. Duke Power Co. exemplifies the inadequacy and inequity of this practice, and the Supreme Court found that inappropriate tests had been used to discriminate against Negroes. It ruled on the question of "whether an employer is prohibited by the Civil Right Act of 1964, Title VII, from requiring a high school education or passing of a standardized general intelligence test as a condition of employment in or transfer to jobs when (a) neither standard is shown to be significantly related to successful job performance, (b) both requirements operate to disqualify Negroes at a substantially higher rate than white applicants, and (c) the jobs in question formerly had been filled only by white employees as a part of a longstanding practice of giving preference to whites.... The facts of this case demonstrate the inadequacy of broad and general testing devices as well as the infirmity of using diplomas or degrees as fixed measures of capability. History is filled with examples of men

and women who rendered highly effective performance without the conventional badges of accomplishment in terms of certificates, diplomas, or degrees. Diplomas and tests are useful servants, but Congress has mandated the common sense proposition that they are not to become masters of reality." The United States Law Week, 3.9.71 39LW 4317, 4319.

²¹Thomas F. Green and Emily Haynes, "Notes Toward a General Theory of Educational Systems" (Syracuse: Educational Policy Research Center, Working Draft 7210, October 1972), p. 41. (mimeo.)

²²See also the section on determination of completion, p. 63ff.

²³Status connotations are present even in the terms commonly used--laborer, worker, personnel. For a full inquiry into the philosophical, sociological and historical reasons for our (Western) division of the world into labor, work, and action, and for the status given to laborers, workers and persons, see: Hannah Arendt, The Human Condition (Chicago: Univ. of Chicago Press, 1958).

²⁴There are some exceptions to this, however. In France, the Legion d'honneur is awarded to and proudly displayed by people in every walk of life, testifying to a desire for the recognition of excellence. In Britain, excellence in a variety of fields is recognized by the bestowing of honorary titles and awards (knight-hoods, OBE's, etc.) by the Queen. In both cases these awards, while recognizing excellence, do not change the economic status of the award-holders.

²⁵James W. Kuhn, "The Misuse of Education: The Problem of Schooling for Employment," quoted in Berg, Education and Jobs, p. 192.

²⁶Berg, Education and Jobs, pp. 108-120.

²⁷Cosette, aged 17, The School That I'd Like, ed. by Edward Blishen (London: Penguin Books, 1969), p. 19.

CHAPTER IV

CERTIFICATION IN TANZANIA

It will be recalled that in Chapter II¹ it was asserted that the changes envisaged in "Education for Self-Reliance" might be necessary but were not sufficient to bring about the intended changes in Tanzanian schools and society. In order to substantiate this assertion, it will now be shown that there is conflict among the functions assigned to education, a conflict which results in a displacement of those functions designated as primary by those designated as secondary. This displacement arises from the institution of certification, which emphasizes the instrumental and individual-centered functions at the expense of the integrative and social reform functions. Thus, a case will be made to show that the conflict and displacement might be avoided if more extensive changes were to be made and, in particular, that prior action is needed on the issue of certification in order for the social and educational intentions of Tanzania to be fully implemented.

In making this case, it is appropriate first to examine certification in Tanzania in light of the general analysis of this institution made in Chapter III and to consider the effects of

certification on schools and on society. Specifically, it is necessary to ask: What are the certificates in Tanzania? To what extent do they share the problems of certification outlined in Chapter III? What further problems are particular to Tanzania?

What Are the Certificates in Tanzania?

It has already been noted² that certificates, a single currency, have been used for three purposes: moving within the educational system, differentiating among different occupations, and allocating status. In Tanzania the certifying process is intended to produce manpower with high and middle level skills. Certificates, then, are of primary importance in differentiating among occupations and among occupational skills.

The Primary School Leaving Certificate³ is a general certificate to mark the completion of seven years of primary schooling. It is awarded on the results of a national examination in four subjects: Swahili, English, Mathematics, and General Knowledge. It is intended that primary school should be general, terminal, and complete in itself. Although less than 50% of all children eligible now enter primary school, the intention is to cut the attrition rate, which is relatively high,⁴ and to attain universal, but still terminal, primary schooling by 1985.

Thus, primary schooling may be thought of as the basic minimum education that all children are to have and the Primary School

Leaving Certificate (PSLC) as a rite of passage into adulthood.

The changed entry age to seven years is to ensure that school leavers are mature enough at 14+ years of age to enter productive life and to be "useful young citizens."⁵ Primary schooling is thus to provide both for the acquisition of social and political skills and attitudes and for a minimum of economic (marketable) skills--that is, functional literacy in its broadest sense.

All certificates other than the PSLC are ostensibly specific certificates, marking the completion of specialized education. Secondary and higher education are to provide the particular skills that are needed for the middle and high level manpower occupations. These levels of education are for the few who are to serve the many. The certificates represent the specific technical skills that are to be the investment in "human capital" and that are expected to benefit the country as a whole.

The General Certificate of Education, ordinary level (GCEO), is obtained from an examination at the end of four years of secondary schooling. Pupils take six to nine subjects, which must include Swahili, English, mathematics and at least one science subject. In secondary schools and in the GCE examinations, great emphasis is placed on science and mathematics for these are thought to be most important for the scientific and technological skills deemed necessary by the projections of manpower requirements.⁶

The final school examinations are those taken after a further two years in Form Six for the General Certificate of Education, advanced level (GCEA). In these examinations, pupils must take the General Paper, two Principal Subjects and either a third Principal Subject or two Subsidiary Subjects. A principal subject approximates two years' work, a subsidiary subject one year's work. Individual pupils will tend to offer only Arts subjects or only Science subjects, for like the English system from which it has evolved⁷ the advanced level examinations are more specialized (in the sense of disciplines of knowledge) and closer to university work than is the GCEO.

Degrees and diplomas are awarded by the University of Dar-es-Salaam, the Colleges of National Education (for teaching), the Dar-es-Salaam Technical College, and the Institute of Development Management. The National Industrial Training Program provides for trade-testing and certificates.

The various certificates are closely linked to occupational categories as identified in the "Survey of High and Middle Level Manpower Requirements and Resources"⁸ of the Second Five Year Plan, 1969-1974. These categories are given as:

- A. Jobs normally requiring a University degree.
- B. Jobs which normally require from one to three years formal post-secondary (Form 4) education/training.
- C. Jobs which normally require a secondary school education for standard performance of the full array of tasks involved in the occupation...skilled office workers and skilled manual workers in the "modern crafts."⁹

It is recognized that skilled workers in Category C will acquire most of their training informally on the job.¹⁰

In terms of years of schooling, the categories represent:

- A. 6 years of secondary education + 3 years of higher education.
- B. 4 years of secondary education + 1-3 years of higher education.
- C. Some secondary education + on-the-job training.

This allocation of occupations is similar to that which one would find in Britain, where the majority of students also do not complete six years of secondary schooling. However, one of the English idiosyncrasies in occupational categories appears to have been eliminated. I refer to the two routes that are available in England for certain professional groups such as doctors, lawyers and accountants, whereby entry to the profession may be through a university degree + specialized training, or by specialized on-the-job training.

The case of the accountant is the easiest to illustrate this point. A person could, with a GCEO, be articled to a firm of accountants for a period of five years and be expected to pass the Association of Certified and Corporate Accountants examinations through part-time study. Or he might continue to the GCEA, enter university and, after completion of a BA, be articled for two years and be expected to pass the Institute of Chartered Accountants examinations. Although an ACCA might be obtained after five years, as opposed to the CA after seven years, it would be more common for the ACCA to take longer due to the difficulties of full-time occupation and part-time study. Benefits, however, may

result from the greater experience and earlier earning--and contributing--capacity. There is little employment differentiation between the two certificates: both are considered professional accountants. In contrast, apparently all professional accountants in Tanzania are to go the university route.¹¹

The length of schooling varies considerably, from seven to 18 years, depending on the future economic roles of the student. This variation may be illustrated in Table 1 below, which includes all occupational categories and the years of schooling and training necessary for each.

The Primary School Leaving Certificate is intended as a terminal certificate, yet some individuals go on to four, six, nine or even 11 years of further schooling and/or training beyond the initial seven years of primary schooling that the majority of persons will attain. Since the PSLC is to be the terminal examination for all but a few, it might be compared to the terminal certificates for the majority in the United States, the high school diploma, or in England, the GCE, ordinary level, and the Certificate of Secondary Education. But in Tanzania, the additional time spent in further schooling and/or training beyond the terminal certificate is almost twice as long as it is in the United States or in England. The Tanzanian educational structure is similar to the English structure, but with universal schooling ending at the completion of primary, not secondary, schooling. The inequality of allowing only a few persons the opportunity of further schooling is

TABLE 1

Educational-Occupational Requirements in Tanzania*

Years of schooling	Certificate	Add. training & certificate	Occupational category	Example	Total yrs. of educ.
7	PSLC	-	unskilled	farmer	7
7-11	PSLC	?	trad. crafts	tailor, painter	7-11
7-11	PSLC	2-3 years training & experience	skilled manual	met. and elec. worker	9-14
11	GCE-O	6 months of training	skill. office & cler.	secretary, bookkeeper	11+
11	GCE-O	3 years training or train. & exp.	technical	engin. or lab technician	14
13	GCE-A	3 or more years ed. &/or train.	professional	doctor, lawyer	16-18
13	GCE-A	5 years progressively more difficult tasks	management & administrat.	senior officer, personnel manager	13+

*Compiled from: "Tanzania Second Five Year Plan for Economic and Social Development, 1st July, 1969-30th June, 1974. Vol. IV: Survey of the High and Middle Level Manpower Requirements and Resources." (Dar-es-Salaam, Government Printer, 1969)

compounded by the fact that they spend in most cases almost as long in further schooling as the majority spends in primary schooling.

Secondary schooling is in a rather peculiar and ambiguous position. In the United States and England, for example, compulsory, universal schooling includes all of primary and a large part of secondary schooling. It is, for the most part, general and not specialized education. It is only at the higher level that education is post-compulsory, differentiated and specialized. In Tanzania, in contrast, primary schooling is to be universal and general, secondary and higher education together are to be the equivalent of post-compulsory and differentiated schooling. Yet secondary education, for those within it, is still general and undifferentiated in form and substance. Differentiation and specialization are postponed to the post-secondary level.

Problems of Certification in Tanzania

It was argued in Chapter III that there are certain difficulties associated with certification, difficulties arising from the ways in which certificates are used and obtained. If we compare the usage and acquisition of certificates in Tanzania with the usage and acquisition in the general analysis, many, but not all, of the same difficulties become apparent.

How Are Certificates Obtained?

It may already be clear that certificates are obtained almost exclusively within a formal educational setting and that the determination of successful completion is made by teachers (not practitioners) and by written examinations. Thus, the ways in which the certificates may be obtained are limited and have a limiting effect on what they are able to attest to.

Consider first the institutional setting. Schools and colleges are concerned primarily with theoretical studies. Since "Education for Self-Reliance," primary and secondary schooling has included an increased practical, especially agricultural, component. The university year has recently been extended from 31 to 40 weeks, and during the additional nine weeks, students participate in the practical application of what they have learned.¹² The increased practical component goes some way in making the training for agriculture or specific occupations more effective. The institutional setting, however, places limitations on this preparation and training in other ways.

Schools and colleges are, by tradition, authoritarian and hierarchical (not cooperative) enterprises, where direct contact between master and learner is invariably and perhaps inevitably marked by status inequality. This status inequality is heightened further by the fact that Tanzania is still short of self-sufficiency in manpower needs. Thus, there are still teachers in schools and colleges who are "non-citizens." And as teachers, rather than practitioners, their distance from the performance field is lengthened further.

The increased practical component of all schooling would seem to indicate that teachers need to be practitioners as well. It is not clear, however, if practitioners are to be encouraged to become part-time teachers. Rather, it seems more likely that teachers are to become part-time practitioners or part-time supervisors of practical work. As teachers rather than practitioners, their own experience may be limited and they may be more able to advise than effectively demonstrate how to do something. They may be able to offer preferred guidelines or recommend "recipes," but they are not really "masters" from whom students can learn directly.¹³

There is a different kind of limitation on teachers through the effect of the "self-fulfilling prophecy" and teachers' unwillingness to be held accountable for students who fail. It is not clear whether this issue is being addressed in Tanzania. These limitations are a reflection of teachers' attitudes that one might expect to find in varying degrees in all countries, except where responsibility for failures (or non-acceptance of failure) is explicitly directed to teachers.¹⁴ Without this responsibility, teachers may pay more attention to those who initially appear likely to be successful than to those whose potential is still obscure. All too often teachers show more concern for the inputs (to what students already are) than for the outputs (what students may learn and become).¹⁵

In considering examinations as measures of successful completion, it was argued earlier that they restrict what shall be learned and are

limited by what can be measured. It was argued, further, that examinations create a hierarchy of what shall be learned. Thus, in primary schools in Tanzania, as long as Swahili, English, mathematics and general knowledge are examined for the PSLC, they will take precedence over any other subject. Both teachers and pupils will pay more attention to these subjects, especially in the final year of schooling. "Education for Self-Reliance" emphasizes the importance of teaching agriculture in the schools. Yet, however well it is taught, agriculture is difficult to examine by written tests. It is far easier to assess whether a pupil can read and write Swahili and English and do simple arithmetic than to assess whether a pupil has a scientific and rational attitude¹⁶ toward the production of crops or toward animal husbandry or the practical skills required by agriculture.

Through the hierarchy of schooling, there is an inevitable backwash effect on what shall be learned. This may be most clearly seen at the GCE, advanced level, where the University of Dar-es-Salaam has considerable influence on the syllabuses by determining what shall be learned (and examined) in preparation for university work. The effect of secondary schooling on primary schooling may be less direct, though the teaching of English in primary schools seems predicated on its usefulness for secondary schooling rather than for primary schooling, where Swahili is the medium of instruction.

A more important limitation of examinations is that they are unable to measure what is deemed to be most desirable--the development of

inquiring and independent minds. The use of cumulative records and teachers' assessments together with examination results does not mitigate against the fact that tests and examinations encourage intellectual conformity rather than the "inquiring mind," acceptance rather than rejection of what has been learned from others--especially from teachers--and do not develop a basic confidence in any but the most successful.¹⁷

Examinations in Tanzania in primary and secondary schools are national examinations administered to large groups of people. They are unable then to be more than rough and unwieldy measures of what a particular individual has learned, and they are used more for their differentiating capacity than for their assessing capacity.

Thus, the difficulties and limitations arising from the ways certificates are obtained are not overcome in Tanzania. Certificates are impersonal and remain unconcrete and formalistic, even though attempts have been made to include a greater practical component in their acquisition.

How Are Certificates Used?

It will be recalled that a great deal of confusion and ambiguity arises from the multiple uses made of certificates. Because all certificates in Tanzania (with the exception of the PSLC) are ostensibly specific certificates, there is less ambiguity associated with them. However, there are still certain usages that do not appear to be fully

justified and that, in effect, limit what the certificates are able to attest to. In particular, certificates are used to indicate both completion and preparation.

For example, while primary schooling is intended to be complete and terminal, the PSLC is treated also as an indication of preparedness for secondary schooling. Furthermore, the GCE, ordinary level, is used to assess past performance as well as to predict future performance. As an indicator of general intellectual ability, the GCE, ordinary level, may be a reliable predictor for further schooling and eventual attainment of the GCE, advanced level; but it is not necessarily a reliable predictor of performance in skilled clerical and technical occupations.

The GCE, advanced level, is an assessment of real ability in certain specialized disciplines of knowledge. This knowledge may be utilized in the training for various professions at the university level, but the certificate cannot assess the potential ability to perform in these professions.

The practical component of the Tanzanian university degrees and diplomas is much larger than that in the degrees and diplomas of most universities. And these certificates are treated as though they attest to both study and training. This usage may indeed be justified, although, as indicated above, the institutional setting continues to place limits on how effective and significant the practical component can actually be.

One further point to note in the usage of certificates as attesting both to completion and preparation is that the specific content is considered important, but successful completion is considered even more important than the content. For example, in 1968 and 1969, not all the university places reserved for science students were filled. Only one-half of the number of science candidates passed the GCE, advanced level, examinations at a high enough level to qualify for university entrance. From the manpower planning point of view, this was a most serious shortcoming since, if the places were not filled, this would affect the 1980 target of manpower self-sufficiency.¹⁸ If this target had been given overriding importance, the entry standards might have been lowered to admit students who had the necessary preparation in terms of content but had not the successful completion in terms of an examination pass. Such a lowering of entry standards would of necessity have called for the adoption of a different, possibly remedial, approach by the university professors: They would have had to concern themselves much more with the outputs than with the inputs to the university.¹⁹

As has been pointed out, the use of certificates as both preparation and requirement for an occupation imposes artificial and sometimes unnecessary restraints on entry to that occupation. In Tanzania entry to all high and middle level manpower occupations is limited to those individuals with varying amounts of post-primary formal schooling. For example, the GCE is used as a qualification and the entry requirement

for clerical and technical occupations. There appears to be little justification for this; there are means other than formal schooling by which to acquire the knowledge and skills that would qualify a person for these occupations.

In addition, the specific degrees and diplomas that indicate preparedness for an occupation are used to exclude other means of preparation. Since skilled manpower is scarce in Tanzania, the use of certificates as both preparation and requirement for occupations appears unnecessarily restricting, for it effectively excludes those who have the skills but not the certificates. Thus, skilled manpower that is available²⁰ may not be utilized. And the effect of excluding other means of preparation may create occupational rigidities--for example, through over-specialization--and may eliminate the possibility of substituting and incorporating other knowledge and skills.

The effect on the individual of the way certificates are used should also be noted. It seems almost inevitable that certificates are used as an assessment of the individual and as a comparative assessment with other individuals. That is, certificates are used to differentiate among individuals as much as--or even more than--to assess particular individuals. The acquisition of the certificate will thus almost always lead to competition among individuals. And as the certificates are treated as absolute rather than relative measures²¹ of what the individual is or may become, their usage is likely to generate perceptions of absolute superiority and inferiority stemming

from relative success and failure. This has special implications in Tanzania, with its stress on equality and cooperation. (These implications will be explored below.)

In Chapter III it was shown that general certificates are advantageous to the individual in offering him a great variety of options but that these same certificates make the employer's task of selecting among candidates for a job more difficult. In Tanzania, the GCE offers the greatest number of options to the individual. Beyond the GCE there is specialization of subject matter, and individuals are "directed" into particular careers. In contrast, certificates beyond the GCE are fairly accurate "labels" for employers to use in order to choose among certificate-holders.

With regard to the "directing" of individuals into careers, it has been the practice since 1964 to offer bursaries only for the courses that lead to occupations and skills that are deemed necessary by manpower projections. Thus, the majority of university places are for science students and .

[t]he number of arts students admitted into the university straight from school [is] determined not by the number who qualify but by the number of bursaries left after the science bursaries have been awarded and these again [are] allocated to specific courses, such as Law, Education, Accountancy, Commerce, etc.²²

The government is the major employer of certificate-holders, and once an individual has been "directed" into a career, he has little option but to continue in that occupation. A disadvantage of this "direction" is that a student may choose a career for the opportunity

it offers for further schooling rather than because he is interested in the particular career.²³

Whether the direction and placement of individuals-is, in practice, strictly adhered to in accordance with scarce manpower needs is not altogether clear. For example, 59% of the first graduating class from the Dar-es-Salaam Technical College were found to be working in jobs unrelated or only remotely related to their training. Seemingly the jobs that were related to their training did not meet their expectations.²⁴

In comparison with the double-edged usage of certificates as described in Chapter III, there seems to be less confusion and fewer anomalies in Tanzania. However, the certificates are for the most part still used as though they indicated both completion and preparation. This does not appear to be fully justified in all cases. In addition, the uses made of certificates to exclude the unschooled may be wasteful of already limited resources.

One further point of general comparison needs to be made. It is not clear to what extent one is able to differentiate between the use of certificates and the use of credentials in Tanzania. In the selection process for further schooling, both teachers' assessments (credentials) and certificates are used. There are not large numbers of certificate-holders, and, except at the GCE level, certificate holders are produced with particular occupational slots in mind. There is indeed a scarcity of certificate-holders, so that there is little choice among them. This is unlike the situation in the United States, where there is, to all intents

and purposes, a surplus which has enabled employers to use certificates as a screening device. And where there is only one doctor serving a large number of people, it is relatively unimportant whether he is a "good" or a "bad" doctor; he is the only doctor available. For this reason, it would appear that, in Tanzania, certificates remain the first--and virtually the only--criterion for allocating high status.²⁵

In summary, because of the way certificates are obtained and used, certification in Tanzania shares many, but not all, of the difficulties identified in Chapter III as being associated with this institution. Most notably, certificates in Tanzania are limited as to what they are able to attest to and limit access to certain occupations, whether such limitations are desirable or not. Since certificates are like paper money and have a value that is dependent on the system of belief and the practices of the economic sector in a particular country, it is necessary to look now at those difficulties that arise from the particular values, beliefs and economic practices of Tanzania.

What Further Problems Are Particular to Tanzania?

Certification in Tanzania may be regarded primarily as a means for the production of high and middle level manpower skills for the exchange sector of society. No certificate is supposed to represent the consumption aspect of education or the pursuit of education for education's sake. Nor is the acquisition of a certificate supposed to

be regarded as a personal investment which would lead to higher personal income and status.

There are major difficulties, however, associated with this certification-manpower relationship, each of which contributes to the conflict between what is intended and what is actually occurring in Tanzania.

The Certification-Manpower Relationship

The first difficulty which arises in the certification-manpower relationship concerns the appropriateness of this relationship. The various certificates, with the exception of the PSLC, are treated as specific certificates which are linked to manpower needs. It is not clear, however, if the certificates are in actuality related to the particular manpower skills needed in Tanzania or if the certificates are more related to the procedural requirements which have developed over time in England. In light of the earlier discussion of the limitations as to what certificates are able to attest to, of the raising of entry requirements, and of the creation of occupational rigidities; it is not clear how strong the relationship is among (1) Tanzania's certificates, (2) the skills attested to, and (3) the skills that are needed. Since the certificates are very similar in pattern to those in England, it is well to remember that rich countries develop patterns or sets of high educational qualifications for occupations, not necessarily because the occupations need more education, but because the rich countries can

afford more education.²⁶ Thus, the particular skill needs of Tanzania may not in fact be met in the certification-manpower relationship that exists. In particular, there is some question of the way in which the manpower skills that are thought to be required are derived since they depend on simple projections of gross aggregate numbers of doctors, engineers and other occupational groups.

Selection

A second difficulty which arises in the certification-manpower relationship is selection. The school certificates are used not only to indicate the completion of schooling and preparation for entry to specialized occupations, but they are also used as a means to select persons for further schooling. For example, the PSLC is a general certificate and relates to general knowledge and skills; it is a certificate primarily of attainment. But it is also used as a means to select persons for secondary schooling. Also, the GCE, ordinary level, although it is a general certificate relating to general knowledge and skills, supposedly represents some degree of specialization since it is used to select persons for skilled technical and sub-professional occupations. It is also used to select a few for further schooling leading to the GCE, advanced level, and entrance to the university. It is used, therefore, primarily to differentiate among individuals rather than to assess their abilities.

There is a further factor in the selection process beyond the assessment of merit or ability: the actual number of places available in secondary schools, colleges and the university. Despite increased enrollments at all levels of schooling since Independence, the percentage of pupils going on to secondary school has actually decreased. That is, it has become increasingly more difficult to obtain a place in secondary education. For example, in 1966-67, only 13%, as compared to 41% in 1961-62, of those who completed primary school went on to Form I in the secondary school; 18% went on to Form V after the Cambridge School Certificate; and 68% went on to university after the Higher School Certificate.²⁷

The number of places is clearly limited because of Tanzania's limited financial resources. Tanzania can allow only a narrow margin of error in the selection process; that is, it cannot afford misjudgments when selecting students. It cannot select more than a few individuals. But there are two questions to be posed: On what criteria are persons to be selected? By what means are they to be selected?

"Education for Self-Reliance" recognizes the advantages of examinations as a means of selection "in reducing the dangers of nepotism and tribalism in a selection process." It also recognizes the disadvantages:

As a general rule they assess a person's ability to learn facts and present them on demand within a time period. They do not always succeed in assessing a power to reason, they certainly do not assess character or willingness to serve.²⁸

With the emphasis in "Education for Self-Reliance" on values and attitudes, character (which I take to include a large dose of self-reliance) and willingness to serve appear to be as important as the ability to learn facts and to reason. But here again is the problem of measurability. Character and willingness to serve are hardly amenable to assessment at a national level by written examinations. They are characteristics that are best assessed by direct person contact, over time, in different situations, by both impartial and partial observers. They are the characteristics of a particular person that might be mentioned in a letter of reference or recommendation. They might be reflected in attitude tests. Apart from the difficulty of making tests of character reliable, there may not be consensus in the interpretation of a characteristic such as self-reliance. What one person may interpret as self-reliance, another may interpret as arrogance, obstinacy or stubbornness. In the absence of clear, reliable, valid and standardizable measures of character and willingness to serve, these attributes take second place to what can be measured with a greater degree of certainty--the ability to learn facts and, to a lesser extent, the ability to reason.

Schools may well be reorganized to encourage self-reliance and willingness to serve (though, in general, they encourage conformity more than they encourage independence). But if certification remains unchanged and consequently these characteristics are not given recognition in the selection process, they will tend to receive only perfunctory

treatment and will not be accepted by the participants as principles and values that should underlie every action and every activity.

Thus, certificates are limited as a means of selection since they cannot determine unambiguously a willingness to serve and a commitment to socialism. No certificate is really able to attest to these personal characteristics, but it is these characteristics that will determine if the certificates are to be used for personal status or if the potential skills are to be used primarily in the service of the nation.

Status

A third difficulty which arises in the certification-manpower relationship is status. It was noted earlier that the high school diploma in the United States seems almost to be used as a rite of passage into adulthood. In Tanzania, the PSLC seems to be used for this purpose, though it is not yet used to withhold adult status. The GCE, on the other hand, seems to be a rite of passage into an elite. But certificates in Tanzania are not intended to be a means of allocating social status. As Nyerere has said: "The essence of socialism is the practical acceptance of human equality."²⁹ A person is to be valued for "what he does and not for what he obtains."³⁰ Those who have had greater opportunities have a greater responsibility to give greater service,³¹ otherwise there can be no justification for "taxing the many to give education to only a few."³² There is to be

a direct link between productivity and income....
And where this is not possible--for example, in jobs like teaching and nursing--we should take account of the social usefulness of the work, and its relative attractiveness in comparison with other opportunities for earning a living--including farming.³³

In short, status is to be accorded to those who make the greatest contribution to society. Those with more education are expected to contribute more and to give greater service than those with less education:

Those who receive this privilege, therefore, have a duty to repay the sacrifices which others have made. They are like the man who has been given all the food available in a starving village in order that he might have strength to bring supplies back from a distant place. If he takes this food and does not bring help to his brothers, he is a traitor. Similarly, if any of the young men and women who are given an education by the people of this Republic adopt attitudes of superiority, or fail to use their knowledge to help the development of this country, then they are betraying our union.³⁴

The privileged may achieve status by shouldering greater responsibility but are not to gain it automatically through formal schooling. For if they feel themselves to be superior to the many, they will not be contributing to an egalitarian society but to the "growth of a class structure in our society."³⁵

Despite Nyerere's claims, however, certification--the certificates themselves, the process by which they are obtained, and the use made of them--is in effect a means of allocating status. There is an explicit status connotation in referring to individuals as having high level skills. This is enhanced by the higher salaries that go

with the piece of paper that ostensibly attests to the high level skills. And even to stress their greater responsibility is to stress the special character of the educated. Where what a man does and what he obtains are closely related, the inevitable result will be the stratification of society. Thus, certification of high level skills will, in effect, if not by intention, create an elite, separate social class.

The difficulties associated with the manpower-certification relationship--its appropriateness, selection and status--create further problems in the form of conflict between the social intentions as expressed in policy statements and the process by which manpower skills are being produced and, more importantly, legitimized. We will consider the effects of this conflict on (1) the individual, (2) the schools, (3) the economy, and (4) the society.

The Individual

According to Tanzanian policy, the intention of the certifying process is to produce needed manpower skills. The individual in whom these skills are embodied is only to be recognized to the extent that he is able to offer service to the many. The notion of individual advancement is to be de-emphasized.³⁶ Yet it is on the basis of individual achievement that places for further schooling are allocated. Cooperative endeavor is to be encouraged, but it is not a group or a member selected by a group that is given the opportunity to be selected.

So long as individuals are selected for further schooling on the basis of their own abilities, group cooperation will be only of secondary importance. School becomes a race in which there are few winners and many losers; and, in order to win, an individual relies on himself, he does not take time off to help others.

Thus, self-reliance takes on a meaning different from that given it in "Education for Self-Reliance." In the latter, education is a means to make the country self-reliant and independent. In the context of selection through examinations; self-reliance means:

"may the best man win, and the devil take the hindmost." Certification does encourage a kind of self-reliance, but it is an individualistic, atomistic kind. It is intended that

a self-reliant individual is one who co-operates with others, who is willing to help others and be helped by them, but who does not depend on anyone else for his food, clothing or shelter...he is a truly free person beholden to no one. This is the position of the vast majority of our people now; it must be the position of all of us.³⁷

But the consequences of certification, with self-reliance interpreted as "doing your own thing," have anarchistic rather than socialist tendencies.

Another effect on the individual and an almost inevitable by-product of certification is the "generalized elitist mentality, of the successful students."³⁸ The limited number of competitors, the stress on manpower needs, the notion of indispensability, and the relatively high salaries that accompany entry to a professional career

engender in the individual attitudes of elitism:

The logic of the market and the rhetoric of manpower planning thus combine into a heady brew of nascent elitism and the latter is not a particularly encouraging starting point from which to take up an important and creative role in the struggle for egalitarianism.³⁹

Even with a commitment to socialism, service and cooperation, the individual, inhibited by the very specialized training that he has undergone and the pressures to obtain the certificate, will be unlikely to have anything more than a fragmented vision of society. Academic disciplines and professional preparation seem to impart a narrow perspective on the world rather than a coherent, holistic view such as seems required for self-reliance. The individual, called upon to provide creative and synthesizing leadership, may in actuality be prepared only for a specialized technocratic role.⁴⁰

Schools

"Education for Self-Reliance" stresses that the purpose of education is always the same: it is to transmit the knowledge, skills, values and attitudes of the society to the next generation. It also stresses the particular values and attitudes that are to be transmitted in Tanzania: cooperation, socialism and self-reliance. The function of schools, in part, is to reform the society by creating in the new generation values and attitudes that may not be widespread within the present adult generation. In order to do this, in order to make tangible and concrete what are otherwise abstract and intangible

goals, the schools are to be reorganized to make them into cooperative agricultural enterprises and the participants are to be integrated into the predominantly rural society. It is also the function of schools to allocate the participants to different roles in society, but this function--as well as the individual-centered function--is to be deemphasized.⁴¹

As was pointed out in Chapter II, these four functions are potentially in conflict with one another. As these functions are operationalized in the schools, the conflict which results has the effect of displacing and demoting the functions designated as primary (the integrative and the social reform) to a secondary position. In particular, certification stresses the instrumental function at the expense of the integrative and social reform functions.

The conflict of instrumental and integrative functions.--

The importance of the role played by examinations in schools and society was not overlooked in "Education for Self-Reliance." It was emphasized that school activities should not be organized around examinations,⁴² that the content of education should take precedence over the form of examinations,⁴³ and that the present examination system and selection procedures should not be regarded as sacrosanct.⁴⁴ Major changes in examinations and selection, however, were postponed until a later, undefined date. Since 1967, some modifications have been made in the content of examinations, but the form and especially the role of examinations remain virtually unchanged.

Stemming from "Education for Self-Reliance," schools have been reorganized as economic and social communities, principally farms, so that they can contribute to their own upkeep and engender cooperation both among the school participants and with the larger community. In the long run, commitment to cooperation is more important than the economic contribution a school can make. In this reorganization secondary schools and colleges are at a disadvantage because the majority of their students are boarders⁴⁵ and thus not immediately and identifiably a part of the particular community. Although it is planned that every secondary school student will produce something that can be used by the community,⁴⁶ this involvement in the community may too easily be regarded as a formalistic obligation only.

It is not clear if the reorganization of schools into economic and social communities affects the pedagogical and academic organization of the schools. If the academic style of the school remains hierarchical, authoritarian and competitive, then a dual system will have been created. Cooperation that is encouraged in extra-curricular activities may be discouraged in the classroom. A study made in 1969 of two secondary schools near Dar-es-Salaam⁴⁷ indicated that pupils had been organized into groups similar to those of the TANU 10-house cell system. Each group was comprised of 12 or more students from all forms with an elected leader. As a group, they participated in the political, economic and social activities of the school. Although the author of the study considered the encouragement of leadership and attitudes

of equality, with participation in manual work and traditional dancing, to be the most important functions of this reorganization; he says:

Forms IV and VI students play a passive role in student politics. These students are in their final year classes and as such they need a lot of time to concentrate on their studies.⁴⁸

The author does not appear to see a contradiction between the encouragement of leadership and attitudes of equality, and the releasing of senior students from their responsibilities in order to concentrate on their studies. He seems rather to indicate that academic studies and examinations are more important, or at least separable from group activities. There is no indication in this study, or from informal sources,⁴⁹ that the group was involved in any way in classroom affairs or if members of the group were involved in teaching or assisting each other with their "book learning."

The integrative function, as operationalized, appears to be more a mandatory appendage to the modified colonial school than it is an integral and organizational core from which all other activities are directed. The instrumental function, especially as operationalized through examinations, continues to exert a great influence on the schools, even though only a few students will be selected for further schooling. A dichotomy is thus created between competition and cooperation, between intellectual individualism and practical communalism, between dissimilarity and equality. If the integrative function is to become primary, this dichotomy must be eliminated. Until it is, and

so long as success in the form of schooling, occupation and status goes to those who are competitive and intellectually stronger, the instrumental function will be perceived as the most important function by those within the schools--and by many outside the schools as well.

It was shown earlier that examinations inevitably affect the content of education by creating a hierarchy of subjects and by placing restraints on what shall be included for examination because of the limitations of what is amenable to measurement. More important in the present context, the role played by examinations and certificates is a differentiating one--examinations distinguish among individuals, separating rather than integrating them.

The conflict of instrumental and social reform functions.--

As developed in "Education for Self-Reliance," education is intended to effect a break with the past and to inculcate certain values and attitudes that do not yet exist widely. In particular, education is intended to prevent or at least inhibit the emergence of a class structure in society and to transform traditional farming methods.

As has already been argued, certification does not encourage cooperative behavior or notions of equality. It encourages, instead, competition and an individualistic kind of self-reliance. It also encourages elitism, since a few individuals are selected for further schooling, which leads to higher status occupations. While examinations are thought of as a legitimate means of selection, the many who are not selected accept their roles as farmers--and as inferiors--to those who are selected.

Transforming farming methods may be easier than preventing the emergence of a class structure, though the two are closely linked. In each case there is the difficulty of changing what is prevalent and accepted as legitimate. What exists has greater legitimacy than what is intended. Farmers are more likely to change their methods when other farmers, not schoolchildren or agricultural officers, demonstrate on their own farms the new methods. Similarly, schoolchildren will accept and act on new values and attitudes when these are more apparent in the society.

Thus, so long as certification demonstrably leads to high status non-farm occupations and a higher standard of living, the social reform function will be inhibited and perceived as less important than the instrumental function.

The conflict of instrumental and individual-centered functions.--

It should be apparent by now that the individual-centered function is, on the one hand, encouraged and emphasized by the instrumental function, and, on the other hand, it is in conflict with the integrative and social reform functions. Individual advancement via schooling leads, not to farming, but to further schooling, which in turn leads to higher status occupations. Education is then perceived as a personal investment and as a means of escaping from the rural areas.

Summary. --In examining these conflicting functions, I have attempted to show that the instrumental function has an inordinate influence on the others, perverting the intentions of "Education for

Self-Reliance" and virtually ensuring that the schools will in effect remain elitist, bookish and divisive institutions. That this function has so great an influence on schools is particularly disturbing for two reasons. First, examinations are unable to measure--or encourage--the attributes thought to be so important for self-reliance--agricultural skills, character, and willingness to serve. Second, the proportion who benefit directly from certification is relatively small (13% of those who completed primary school in 1966). Thus, the changes that have been made in schools may be necessary, but they are clearly not sufficient to ensure that the intended functions--the integrative and social reform--operate as the primary functions of schooling. Further changes are called for both in the kinds of examinations and uses to which they are put. This latter is in part beyond the scope of the schools or of the educational system, but since most certificate-holders are to be employed in government positions, Tanzania has the power to diminish the importance of and the value attributed to certificates in the economic sector and, thus, to lessen the influence of the instrumental function in the schools.

The Economy

The purpose of certification is primarily to attest to the production of specific knowledge and skills required by scientific and technical occupations. The high costs entailed in this process

can only be justified in terms of increased productivity and the service that is rendered to society at large.

During the transition from colonialism to self-reliant independence, the present form of certification carries the risk of a decrease in productivity. Tanzania is not yet self-sufficient in manpower. Although many positions previously held by colonialists are now filled by Tanzanians, it is still necessary to "rent" the knowledge and skills of non-citizens. Because the nationalization of all positions is more a political than an economic goal, it may seem inappropriate to raise the question of the relative economic advantage of "renting" manpower skills over the costs of producing these skills locally.

The point is raised, however, not to compare costs but to suggest that it is possible, through "rented" manpower, to acquire also experienced manpower that could be utilized in on-the-job training of uncertified Tanzanians. Certification in its present form, however, excludes this possibility. It can at best only prepare manpower; it cannot replicate the experience that comes from practice; it offers few opportunities for master-learner relationships. Thus, initially at least, as newly certified Tanzanians take over positions from more experienced non-citizens, there may be a decrease in productivity. In fairness, this cost may best be calculated in political rather than economic terms.

Nevertheless, there are costs through certification that must be considered primarily in economic terms. These are the high costs of institutional preparation, the occupational rigidities that are created, and the degree of efficiency that can be expected from certificate holders.

In 1969-70, for example, 19% of the total national recurrent budget in Tanzania went to education. Of these expenditures, 92.5% were for formal education; 0.3% were for industrial training; 1.4% were for rural areas (agricultural extension work, principally); 0.9% were for adult education; and 4.9% were for health, civil service, management and other training. In a breakdown of the amounts for formal education, 47.2% went to primary, 21.3% to secondary, 5.7% to teacher training, and 12% to higher education.⁵⁰ Thus, excluding the costs of primary schooling (and it might be that some of these costs should be included as well), expenditures on the production of manpower (2.4% of the relevant age group⁵¹) entailed 38% of the education budget and almost 8% of the national budget. This investment in "human capital" is high and there can be no return on the investment for some time to come since the lead time for production is from four to 11 years.⁵²

It has already been argued that institutional preparation has limitations, for the theoretical component is larger than the practical component. In addition, individuals do not contribute to the economy until their education is completed. Where there is on-the-job training,

individuals can at least be expected to contribute to the enterprise at the same time as they are undergoing their training.

It was also argued earlier that certification creates occupational rigidities in that the educational qualification is treated as the occupational requirement, thus excluding other qualifications and other requirements. Occupations such as those in Category A (page 96 above) which normally require a university degree do not necessarily require such a degree. The case of accountants is a ready example. Occupations in Category C which normally require a secondary education, such as skilled clerical workers, have not always required a secondary education in Tanzania. Indeed, a large number of clerical and executive officers in government service will presumably have entered when the PSLC was the entry requirement and have gained promotion through additional school certificates, such certificates often being conditions for promotion past an efficiency bar. That these occupations now require a secondary education may be less a measure of the increase in skills required than an indication of the availability of more persons with secondary education. Further, by making an educational qualification an occupational requirement, older, experienced but uncertified persons are excluded from positions of responsibility. Such persons may rightly resent young but certified, inexperienced persons being promoted over them. This practice "ignores those who have the necessary knowledge, but not the certificates."53

The changing conditions in Tanzania would suggest that an individual needs greater flexibility and greater innovative ability than his counterpart in a developed country. Certification which is unable to guarantee even competence seems unlikely to produce flexibility and creativeness, and it is these three characteristics which seem to be most necessary for efficiency and increased productivity in Tanzania.

The Society

Certification is creating an elite, separate class. This effect has been recognized. Indeed, it is indicated in "Education for Self-Reliance" that there is a need to downgrade examinations, and thus certificates, in government and public esteem.⁵⁴ Yet it is through governmental action in retaining occupational categories based on minimum educational requirements signified by certificates that the formation of an elite continues to be encouraged. Entry to this elite class is through formal schooling, and there appear to be no alternative routes to high status.

The number of people involved is small, with "only about 3 percent of the population working for wages, and less than 0.3 percent of these in jobs requiring more than a primary education."⁵⁵ The high expenditures (£3000 for a three-year degree in a country where the annual average per capita income is £20⁵⁶) on a few individuals to produce the needed manpower, and their long absence and relative

isolation from the "real" world cannot help making them aware of their privileged position. There are no guarantees that they are willing or able to contribute to the society in proportion to what has been expended on them.

It would seem that certification of the few is inconsistent with the notion of--and innovative practices occurring elsewhere in-- the "nationwide learning system." It is certainly in conflict with the objectives of socialism--equal rights and opportunities, the absence of exploitation, the achievement of a distributive revolution.⁵⁷ Certification results in unequal opportunities. The majority are taxed in order for a few to be prepared for high status occupations. And those who are certified live in relative luxury before they even begin to contribute to a "gradually increasing basic level of material welfare"⁵⁸ for the many.

Summary

Some of the difficulties associated with and generated by certification arise from Tanzania's particular social goals. Some are similar to those identified in Chapter III in that certificates are limited as to what they are able to attest to, they are impersonal, their acquisition is often removed from practical realities, and their double-edged character is sometimes misused.

There is a further difficulty, not previously alluded to directly, that arises in part from Tanzania's colonial past. It is

that certification in Tanzania is not an indigenous institution. It is derived from and similar to that in England, but it is more rigid. It lacks some of the English idiosyncracies, such as the different preparatory routes to one occupation. Since certificates as screening devices are dependent on practices in a particular country, English practices may be inappropriate for the conditions peculiar to Tanzania. Unlike England or the United States, for example, Tanzania is experiencing a scarcity, not a surplus, of certificate-holders.

One might therefore expect that Tanzania would have already paid great attention to this crucial institution of certification. It was suggested in Chapter III that certificates should be made more specific, that alternative, legitimate ways of acquiring knowledge and skills be opened up, and that certificates be used with greater caution. Tanzania has the power to do all of these things, since the numbers of people involved are relatively small and the central government exercises considerable control over both the educational system and, through government and para-statal institutions, the economic sector of society.

One might also expect that Tanzania would have already paid great attention to certification because certainly the educational system and other social institutions have been subjected to considerable critical scrutiny. Yet certification has barely been modified.

The absence of action on or even critical scrutiny of certification seems to suggest that certification is accepted almost unconsciously or has proven difficult to modify. The lack of serious questioning in this area contrasts sharply with the fundamental search being undertaken in other areas of education. Perhaps the clearest example is the quest for a new kind of primary school complete in and of itself, undiluted by the demands of secondary schooling, and aimed at meeting claims of equity. The task of Chapter V, therefore, is to attempt to understand why certification has escaped the serious questioning directed at other social institutions.

NOTES TO CHAPTER IV

¹See Chapter II, pp. 38-42.

²See Chapter III, pp. 49-52.

³For information about the structure and size of the educational system, see Appendices A and B.

⁴The Standard 4 examination has been eliminated to help cut the attrition rate. However, there are still school fees (there are none for secondary education), which may account for some drop-outs.

⁵Nyerere, "Education for Self-Reliance," Ujamaa, pp. 60-61.

⁶Pupils are urged to develop interests and careers in the fields of science and technology, and serious concern is expressed over the fact that fewer persons choose such careers than there is the need or the opportunity. The majority of pupils prefer careers in the humanities and medicine, since through their culture they are more interested in people than in things. See for example: J. van Baal, "The Modern School: An Imported Institution in the Developing Countries" in Educational Problems in Developing Countries, ed. by CESO (Centre for the Study of Education in Changing Societies) (Groningen: Wolters-Noordhoff Publishing, 1969). It is rather ironic that people in underdeveloped countries are being urged to become more rational, while in the West which might be described as a culture of "doers," there has been a relative decline in the numbers of students going into science since the peak in the 1950's, and at the extreme, the "counter-culture" is posited almost entirely on a revival of mysticism and personal relationships.

⁷The Tanzanian GCE, both ordinary and advanced levels, replaced the East African GCE in 1971, which in turn had replaced the Cambridge School Certificate and the Higher School Certificate. The Cambridge Examinations Syndicate assisted in the setting, marking and moderating of the East African GCE.

⁸"Tanzania Second Five Year Plan for Economic and Social Development, 1st July, 1969 - 30th June, 1974." Volume IV: "Survey

of the High and Middle Level Manpower Requirements and Resources." (Dar-es-Salaam: Government Printer, 1969).

⁹Ibid., p. 4.

¹⁰Ibid.

¹¹Ibid., pp. 12A and 12B, Tables 4 and 5, Categories A and B Occupations.

¹²Overseas Liaison Committee, American Council on Education, Tanzania: A Nation-wide Learning System (Washington, D. C. [?], November 1971), p. 8.5. (mimeo.)

¹³Cf. Chapter III, p. 62ff.

¹⁴See: Urie Bronfenbrenner and John C. Condry, Two Worlds of Childhood: U.S. and U.S.S.R. (New York: Russell Sage, 1970). In the USSR it is considered inappropriate to attribute failure to genetic deficiencies or family background; thus, teachers, with other social institutions such as the family and the Party youth organizations, are held responsible for the success of all children.

¹⁵Cf. Chapter III, p. 63.

¹⁶It is argued that people in underdeveloped countries must be encouraged to develop scientific and rational attitudes toward the world and to rid themselves of the mysticism and fatalism with which they have viewed their world in the past and which now inhibits economic and technological development. See: Thomas Balogh, "Misconceived Educational Programmes for Africa," Universities Quarterly, Vol. 16, No. 3 (June 1962), p. 245.

¹⁷Cf. Nyerere, "Education for Self-Reliance," Ujamaa, p. 53, and quoted in Chapter II, p. 35.

¹⁸Survey, p. 9. There is no indication of what happened to the unsuccessful candidates, whether they entered the Technical College to which the GCE, ordinary level, is the entry requirement, or if their science preparation was utilized in any way.

¹⁹Note that this change of approach is also implicit, but not always explicit, in the practice of "open admissions" to college.

²⁰It is difficult to determine the extent and availability of skilled but uncertified manpower, but we may be justified in assuming that it does exist. Cf. for example: Nyerere, "Education for Self-

Reliance," Ujamaa, p. 57: "If a man does not have these qualifications [school certificate or degree] we assume he cannot do a job; we ignore his knowledge and experience. For example, I recently visited a very good tobacco-producing peasant. But if I tried to take him into Government as a Tobacco Extension Officer, I would run up against the system because he has no formal education."

²¹See also Chapter III, p. 74.

²²Solomon N. Eliufoo, "The Aims and Purposes of Tanzanian Education Since Independence," in Tanzania: Revolution by Education, ed. by Idrian N. Resnick (Arusha: Longmans of Tanzania, 1968), p. 44.

²³Cf. the findings of E. L. Klingelhofer, "Occupational Preferences of Tanzanian Secondary School Pupils," Journal of Social Psychology, No. 72 (August 1967), p. 158: "It seems clear that national needs and individual preferences of secondary school students are badly mismatched. The students are overwhelmingly oriented toward high prestige professional occupations, while the country requires clerks, skilled manual workers, teachers, and nurses. These needs probably cannot be met without applying considerable social pressure or control; and the necessity of using the sort of stratagem has serious implications for the motivation of individuals recruited into these occupations, their occupational life expectancy after training, and the caliber of their performance while on the job. Their rates of failure and voluntary attrition will probably be higher than those for individuals engaged in the same occupation through choice, and will be higher than anticipated by the manpower planners."

²⁴Overseas Liaison Committee, A Nation-wide Learning System, p. 6.5.

²⁵The nature of credentials is such that it is difficult to find evidence of their usage in a study based on secondary sources. We may, however, be justified in assuming that credentials play an important part in the election of TANU party officials, especially at the 10-house cell level, and in the recognition and standing of master farmers.

²⁶P. R. G. Layard and J. C. Saigal, "Educational and Occupational Characteristics of Manpower: An International Comparison," British Journal of Industrial Relations, Vol. 4, 1966, p. 230. The slightly different point "that the level of employees in high level occupations varies widely from country to country" is also made by Idrian N. Resnick, "Educational Barriers to Tanzania's Development," in Tanzania: Revolution by Education, ed. by Resnick,

p. 129, drawing on findings by J. Blum, "Educational Attainment of Occupational Categories of Workers in Selected Countries," Appendix D in H. S. Parnes, Forecasting Educational Needs for Economic and Social Development (Paris: OECD, 1962).

²⁷Comparative figures for 1961/62, 1966/67 and 1969 are as follows:*

	1961/62	1966/67	1969
(a) No. of primary school leavers	11,732	52,547	59,000
(b) No. entering Form 1	4,810	6,685	7,110
(c) (b) as a percentage of (a)	41%	13%	12.05%
(d) No. completing Form 4	1,603	4,723	-
(e) No. entering Form 5	286	826	-
(f) (e) as a percentage of (d)	18%	18%	-
(g) No. completing Form 6	176	761	-
(h) No. entering university	95	517	-
(i) (h) as a percentage of (g)	54%	68%	-

*Figures for 1961/62 and 1966/67 were compiled from: R.C. Honeybone and J. K. Beattie, "Mainland Tanzania," Examinations, The World Yearbook of Education 1969, ed. by Joseph A. Lauwerys and David G. Scanlon (New York: Harcourt, Brace and World Inc., 1969), Table II, p. 133. Figures for 1969 were compiled from: Nicholas Bennett, "Tanzania: Planning for Implementation," in Educational Cost Analysis in Action: Case Studies for Planners - I (Paris: Unesco, IIEP, 1972), p. 25. Concerning the change from the Cambridge School Certificate and Higher School Certificate to the GCE, ordinary and advanced levels, see Note 7 above.

²⁸Nyerere, "Education for Self-Reliance," Ujamaa, p. 63.

²⁹Nyerere, "The Purpose is Man," Ujamaa, p. 53.

³⁰Nyerere, "Education for Self-Reliance," Ujamaa, p. 53.

³¹Ibid., p. 74.

³²Ibid., p. 62.

³³Nyerere, "After the Arusha Declaration," Ujamaa, p. 169.

³⁴Speech given by Nyerere in 1964 at the beginning of the First Five Year Plan and cited in Overseas Liaison Committee, Nation-wide Learning System, p. 4.17.

³⁵Nyerere, "Education for Self-Reliance," Ujamaa, p. 55.

³⁶Ibid., p. 52.

³⁷Nyerere, "After the Arusha Declaration," Ujamaa, p. 151ff.

³⁸John S. Saul, "High Level Manpower for Socialism," in Resnick, Tanzania: Revolution by Education, p. 99.

³⁹Ibid., p. 100.

⁴⁰Ibid., p. 101.

⁴¹See Chapter II, p. 41.

⁴²Nyerere, "Education for Self-Reliance," Ujamaa, pp. 61-62.

⁴³Ibid., p. 63.

⁴⁴Ibid., p. 77.

⁴⁵See: Overseas Liaison Committee, Nation-wide Learning System, p. 6.2. 72% of secondary school pupils were boarders in 1968.

⁴⁶Ibid., p. 4.18.

⁴⁷Alois Mbunda, "Comparative Study of Pre- and Post-Arusha Declaration School Organisation Systems in Tanzania." University College, Dar-es-Salaam, Political Science Department Paper No. 6, March 1969. (mimeo.)

⁴⁸Ibid., p. 14.

⁴⁹Neither a couple recently returned from teaching in Tanzania nor a Tanzanian graduate student at Syracuse University could confirm the use of the 10-house cell system in schools. They do, however, indicate that in their experience classroom activities continue to be organized in the traditional manner.

⁵⁰Overseas Liaison Committee, Nation-wide Learning System, Tables 3.1 and 3.2. Expenditures on education are estimated to increase to 23.7% of the total recurrent budget in 1973 and the commitment to formal education is to decrease to 80.6% of this amount.

⁵¹Ibid., p. C.1.

⁵²See Table 1, p. 99.

53 Resnick, "Educational Barriers to Tanzania's Development," in Tanzania: Revolution by Education, ed. by Resnick, p. 125.

54 Nyerere, "Education for Self-Reliance," Ujamaa, p. 62.

55 Robert L. Thomas, "Problems of Manpower Development," in Tanzania: Revolution by Education, ed. by Resnick, p. 110.

56 Ibid., p. 114.

57 Nyerere, "Socialism and Rural Development," Ujamaa, p. 110.

58 Ibid.

CHAPTER V

THE TRANSFER OF CERTIFICATION

Introduction

In order to understand why certification has not been subjected to critical scrutiny or been modified to any great extent, a foray must be made into the domain of social change theory. It will be shown that certification is a case of transfer in the realm of technology, transfer which distorts the relationship of education as a means to the ends of socialism. Because of this distortion, certification sits like an indigestible morsel obstructing the implementation of intended educational and social changes. And if it can be shown why certification is a debilitating factor, it may be more likely to receive the critical appraisal and priority treatment that its crucial position demands.

Certification is clearly a carry-over or transfer from Tanzania's colonial past. But this fact can only partially explain why certification has received so little attention. Other transferred institutions, such as the form of government, have been modified and are being transformed. That certification has apparently resisted transformation suggests that it is affected by technological inertia, an apparent force in things that makes them amenable only to transfer and not to transfor-

mation. Moreover, technology, by distorting the means-ends relationship, comes to specify its own ends. For example, the techniques of manpower production stress increased productivity, not a commitment to Tanzanian socialism. There are thus three interrelated factors involved: a distortion of the means-ends relationship, technological inertia and transfer.

Before examining these three factors, let me first indicate briefly the cultural, social and physical environments within which changes occur. These environments--or, as we have called them, the realms of meaning, conduct and technology--and the different societal sectors through which each realm is most explicitly expressed, may be illustrated by the schema in Table 2 below.

The three realms may be thought of as a way of viewing the phenomena of reality. They are ordered according to the degree of perceived tangibility, with the least tangible--meanings--at the top, and the most tangible--technology--at the bottom. At the same time, the fundamentals or basics which appear at the top give content to the more specific or derived elements at the bottom. For example, a four-legged wooden object is meaning-less until it is understood as a chair. Within each realm the categories may be seen as levels of aggregation and complexity. The realms may be seen as corresponding to a sectoral division of society and the different levels at which men live.

It should be noted that the realms, levels of aggregation and sectors are but a means of looking at the "real" world; they are by no

TABLE 2

Schema of the Realms of "Reality"*

Realms	Levels of aggregation and complexity within each realm			Societal sectors through which realms are expressed
Meanings:	thoughts, ideas	values, beliefs	myths, worldviews	political, religious.
Conduct	persons	relationships, customs, codes of behavior	institutions	social
Technology:	things	means of production	total environment within which production takes place	economic

*This schema attempts to synthesize various ways of describing the world found in the literature on social change, cultural anthropology, development theory and sociology of knowledge. I have drawn particularly on distinctions made by: Arendt, The Human Condition (the various realms and sectors are similar to her "human conditions" of action, work and labor); Manfred Stanley in his work on technicism (he does not, however, disaggregate within each level of meanings); Spicer (ed.), Human Problems in Technological Change (the impact of cross-cultural contact on customs and beliefs); Hoselitz, "Advanced and Underdeveloped Countries: A Study in Development Contrasts" in Hamilton (ed.), The Transfer of Institutions (value, socio-structural and economic factors); Barnett, Innovation (stress on the importance of the "ultimate mental reference," p. 15); and Schneider, "The Idea of Culture in the Social Sciences" (cultural facts are intangible despite the looseness with which the term culture is used). [See Bibliography for full details of publications.] In most cases the authors essentially concentrate on one or two realms. The schema is then a synthesis and the distinctions are the same whether they are termed meanings, psychological or cultural; conduct, behavior or social; and technology, technical or physical.

means hard or clearcut but are continuously and intricately related to one another. For example, a tree may be looked at as an idea (an object of beauty), a meeting place, and as a means of production in building a house. And in a stable society the correspondence between realms and sectors is most clearly recognized. In times of change, particularly rapid change, the correspondence of sectors to realms may become diffused, creating uncertainty and disorientation while the old order gives place to a new one.

The realm of meanings includes thoughts and ideas, sets of values and beliefs, which together form world-views (systems of meanings that are shared among persons); myths and metaphors are codifications and simplifications of the complexities of views of the world. This realm is closely related to spiritual and political existence, to the beliefs about man's relationship to his universe--god and eternal nature, the unknown and unknowable, values about man's dealings with other men. Religions, philosophy, ideologies and debates about what is "good," "just" and "right" fall into this realm.

The realm of conduct includes persons, the relationships and the codifications of behavior among persons, and the institutions which mediate between and among persons. This realm is closely related to social existence, to the ways in which men and women live and act together. Families, communities and schools fall into this realm.

The realm of technology includes things and tools, the means and techniques of producing things, and the total environment within which

the production takes place. It therefore subsumes many social institutions. This realm is closely related to economic existence, to the ways in which men provide for their physical needs, which have now extended beyond mere physical survival.

Means-Ends Distortions

Ideally, the realm of technology (together with the realm of conduct) represents the means by which the ends or goals of society (derived from the realm of meanings) are achieved. Today, however, the advance of technology has virtually become an end in itself. This is what we are referring to as a distortion of means and ends.

How has this come about and what are the consequences? The realm of technology has become closely related to the notion of scientific knowledge, a subset of the realm of meanings. Scientific knowledge is thought to be objective, free of personal and ideological considerations. Through the pursuit of objectivity, scientific knowledge and, by extension, technological know-how are presented as "superior"¹ to other kinds of knowledge. This position effectively excludes discussion of what is "good." Debates about the ends of society, about what is "good," "just" and "right"--whether these debates relate in actuality to meanings, conduct or technology--are treated as irrelevant, already resolved or less important than the search for objectivity. But objectivity is an elusive ideal,² it is almost impossible to achieve. This is not always recognized and the result is to treat the ends as being

settled and to discuss only the means and the choice among means. The realm of technology, the how to achieve something, takes precedence over the realm of meanings, the why to achieve something. This distortion of the relationship between means and ends has the effect of making technology as a means virtually an end in itself.

Technological Inertia

A further factor which contributes to this means-ends distortion is that of technological inertia, whereby technology appears to possess sufficient momentum to preclude certain ends and to impose certain meanings. That is, a particular technology may be a means to a particular end. If this technology is then used as a means toward achieving another, different end, the technology may prove so inextricably linked to the previous ends as to be dysfunctional. The case of manpower production, mentioned above, is illustrative. The technology either fails to serve as a means to the new end or changes the new end to coincide with the previous end. In other words, technological inertia is the effect of means coming to specify their own ends and results from the realm of technology coming to predominate over the realms of conduct and of meaning.³

Transfer

Transfer is related both to the distortion of the means-ends relationship and to technological inertia. It will be recalled that we

earlier distinguished between three forms of change--innovation, transformation and transfer. We are concerned here with the impact of elements of one society upon another and thus with transfer and transformation, not with innovation. Transformation is a form of change that occurs when an element is borrowed from outside a particular society but when the intention for and determination of change is motivated from within. For example, if Tanzania, as an internal agent, intends a particular change and borrows elements from outside of Tanzania, this would constitute a transformation. Ujamaa--Tanzanian socialism--is such a transformation. Many of the ideas and intentions of ujamaa are borrowed, but the particular form that socialism is taking is peculiar to Tanzania.

Elements to be borrowed and transformed are very often represented by physical and tangible things that are from the realm of technology. Whether they are things, tools or techniques of production, these elements are difficult to disaggregate from the total environment in which the production formerly took place. For the technological realm is in turn interrelated with the cultural and social environments, with the realms of meanings and of conduct. Thus, even in borrowing an element and intending to transform it, there is risk that it may not be separable from the previous situation. Elements that are borrowed as means to achieve ends different from those they previously served may turn out to be non-transformable but only transferrable, due to their technological inertia.

Transfer is the form of change that occurs when an element from outside the society is in some way "foisted" on the society. The intention and determination of change is motivated from outside. That is, if a country other than Tanzania intends a particular change in Tanzania, this would constitute a transfer. It is important to note that external agents do not necessarily "foist" the change directly or forcibly on Tanzania. The change is purported to be "superior," and the persuasive power of reason is invoked to gain acceptance of the change. Discussions about the reasons and the ends of the change are hardly possible in the face of the purported "superiority" of the change. Its "superiority" is enough. There is then a danger of a means-ends distortion.

We may now consider how these factors--the means-ends distortion, technological inertia and transfer--together help explain the seeming unawareness of the crucial and critical position of certification in Tanzania.

Certification As Transfer

Certification in Tanzania clearly is a transfer. The certificates that are used, the process by which they are acquired, even to some extent the ways in which they are used, stem from other countries, from external agencies. What modifications have occurred in the process are minor modifications of content. Certification appears to be accepted and not rejected or questioned because it is presented--

particularly by manpower planners--as being the most satisfactory, even the most efficient, way of producing needed manpower.

In contrast, institutions, pre-colonial as well as colonial, have been transformed. For example, in the political sector, the Westminster style of democracy, inherited from Britain, has been transformed into a one-party democracy in which the single party presents two candidates for each electoral constituency. This change was mediated by the particular conditions in Tanzania and by the demands of Tanzanian socialism. In the social sector the traditional rural way of life is in the process of being transformed by the creation of ujamaa villages. All villages are linked by the TANU 10-house cell system to the political sector. Colonial primary schools are to be transformed into complete and terminal, community-based schools and tied to the "nation-wide learning system." In the economic sector modern farming methods are to replace traditional subsistence methods, and cooperatives and para-statal corporations are to involve the participation of peasants and workers in the marketing and management of their economic affairs.

All these transformations are means to the ends of ujamaa. The social institutions are means, because they are derived from and are subservient to the ideological and ideational standpoint of ujamaa. Ujamaa and its realization in social institutions together determine the technology that is to be utilized, the total environment within which production takes place. Any particular technology chosen is then expected

to be affected by, but also to affirm the meanings, values and beliefs of the society. The short term effect of choosing a particular technology may be to reduce efficiency (the guiding principle of technological choice) but to increase equity. For example, a choice has been made to raise the standard of living of all (that is, to address the absolute poverty of the rural areas and the relative poverty between rural and urban areas) in preference to attacking directly underdevelopment (that is, to addressing relative poverty in comparison with other countries).⁴ For cooperative ujamaa villages may be less efficient in terms of production than privately-managed or -owned farms or plantations. Primary schools for the many may be less efficient than primary schools for a few who may benefit the most.⁵ Para-statal corporations, protected as they are by the government, may be less efficient than private and competitive enterprises. It may be hoped that in the long run efficiency will be increased but that equity will prevail. In any case, at this point in Tanzania, equity is preferred to efficiency.

Certification to produce high and middle level manpower skills is a means to increased productivity, an end of economic development. As a means to this end, it may not be compatible with the social end that has been posited by Tanzania--a distributive revolution. Indeed, it has been shown earlier that, instead of equality and cooperation, certification encourages inequality and competition. And one result of certification is the emergence of an undesired class structure. Thus,

not only is certification incompatible with desired social ends, but certain consequences of certification are a direct contradiction of these ends.

Certification is clearly only one aspect of education, and all of Tanzanian education is seen as a means to the ends of socialism. But certification, in effect, is in conflict with and displaces the other functions of education. Moreover, certification is seen as a means to produce manpower skills and thereby to increase productivity and economic development, aspects of socialist goals. But the compatibility of the goals of economic development and the distributive revolution rests on the notion of service by the few for the many. And certification does little to encourage this notion of service. Instead, it acts principally as a means to economic development. It seems unable to serve both ends. It distorts and perverts education as a means to the ends of socialism and serves to separate one aspect of the ends of socialism from the others, creating a division and duality in the society. That it is able to do this may be explained by the effect of technological inertia.

Certification is a social institution, but as a means of producing manpower skills it may also be thought of as a technique, a technical process in the realm of technology.⁶ As such, it seems inextricably linked to the ends it previously served--that is, to economic development for the purposes of capitalism in England, the country from which it has been transferred. And by failing to fit with

the new ends to which it is ostensibly the means, certification remains a transfer, resists transformation, and thereby is dysfunctional to the broad goals of socialism.

The difficulty with certification, however, is not just that it fails to act as a means in the way it is intended to do. It is also an obstacle to the implementation of the broad intentions of Tanzanian society. In the relationship and hierarchy of the realms and sectors of society, meanings affect conduct, which in turn affect technology. That is, through discussion in the political sector, particular meanings are negotiated and accepted as shared. Social institutions are shaped in accordance with these meanings, and together they determine the tools and techniques of production that are to be utilized. The changes intended in Tanzania, represented by the policy statements we have earlier examined, follow this pattern. The meanings of socialism (the values of equality and self-reliance) have influenced and shaped the political, social and economic institutions and practices.

Certification has not been shaped and influenced by the meanings of socialism, but by those of capitalism. So, in effect, are the social institutions with which it is associated—schools, colleges and the exchange sector of society. Whether explicitly or not, these institutions together affect and affirm a set of meanings that are different from and incompatible with the meanings of socialism. For technology is not value-free. A particular technology is derived from a particular set of meanings, it is rooted in a particular culture. It is as if a technology

has embedded and embodied in it a whole set of implicit assumptions which need to be explicated and examined to see if the technology can be utilized for ends different from those for which it was designed.

There is one additional factor. The changes intended in Tanzania, besides being derived from the realm of meanings, are also in the domain of what might be. They are statements about the future. They are intangible and can only be concretized through persons and institutions. Certification is already concretized and tangible. It is in the domain of what is. Thus, if social intentions and certification are incompatible and in conflict, it may be expected that the domain of the present has greater legitimacy and is more acceptable than the domain of the future. Persons tend to act more readily on what is probable than to bring about what might be possible.

Thus, the case of certification constitutes a particular form of distortion in the means-ends relationship. The distortion originates from certification's transfer characteristics, but it is perpetuated by the effect of technological inertia and supported by a legitimacy accorded to what is most tangible.

Summary

In this brief theoretical foray I have attempted to give the reasons which seem to have led to a lack of explicit attention to the issues of certification in Tanzania. It seems that certification is not only outside the range of attention but also, at present, beyond the

reach of intention. In order to change this, in order to align certification with intentions, it is necessary to recognize that (1) technology can assume a dangerous inertia, (2) it is nevertheless possible to choose among technologies,⁷ and (3) the issue of certification demands priority treatment. It should be noted that technological inertia is by no means confined to underdeveloped countries. There is a pervasive tendency throughout the world, particularly in developed countries, to allow technology to determine the social institutions and meanings of society. It may be easier for underdeveloped countries to recognize this tendency because it come to them from "outside," from external agencies, in the form of transfer. And if they "fear the Greeks bearing gifts," they may come to recognize that it is the "gifts" themselves rather than the "Greeks" that they should be aware of. For certification may be likened to a Trojan Horse; it is brought into the society without arousing fear or suspicion, but it carries within it the capacity to disrupt the society. It must then be examined most critically, and it needs to be changed if education is to be able to fulfill its role in contributing to the realization of the broad intentions of the society.

NOTES TO CHAPTER V

¹See: Jacques Ellul, The Technological Society, trans. by John Wilkinson (New York: Alfred A. Knopf, 1967), pp. 79-85 ("automatism of technical choice"), in which he points out that society is presented with "the one best way" which "may not be judged or questioned; immediate use must be found for the most recent, efficient, and technical process." (p. 81) "Similarly, there is no choice between two technical methods. One of them asserts itself inescapably; its results are calculated, measured, obvious, and indisputable." (p. 80)

²See: Laurence H. Tribe, "Policy Science: Analysis or Ideology?" Philosophy and Public Affairs, Vol. 2, No. 1 (Fall 1972), pp. 66-110. His discussion is primarily directed at the policy sciences, but his analysis of the distorting effects on the means-ends relationship of assumed objectivity is of relevance here.

³Another way of discussing technological inertia and the predominance of the realm of technology over the realms of conduct and meanings may be expressed in terms of desired and unanticipated, undesired consequences. See, for example: K. N. Lee, "Letter to the Editor: Implementation of Technology," Science, Vol. 180 (22 June 1973), p. 1235, who writes: "A technology can be described as a bundle of capacities--a set of abilities or ways to do something. The principal capacity of an automobile is to transport people and goods; a secondary capacity, to emit air pollutants. Traditionally, successful technologies catered to or created tastes related to the principal capacity, which was thus invariably perceived as desirable by its users. But one buys the entire bundle, and sometimes secondary capacities become sufficiently undesirably to challenge the bundle as a whole--as in the case of the automobile." (emphasis added)

⁴Cf. Chapter II, pp. 21 and 29.

⁵Cf. Philip Foster, "Education for Self-Reliance: A Critical Evaluation," in Jolly, Education in Africa, who argues that the claims of equity and efficiency are bound to conflict and that it would be more efficient in educational terms to "concentrate educational resources on areas or groups that are most able to profit from them rather than spreading them so evenly and thinly that benefits are attenuated." (p. 91) That is, greater opportunities should be offered to those "already the most 'modernized' both in terms of schooling and involvement in the exchange economy." (p. 90)

⁶Cf. Ellul, Technological Society: "technique has become objective and is transmitted like a physical thing," (p. 78)

⁷I diverge from Ellul at this point. He writes: "It is not in the power of the individual or of the group to decide to follow some method other than the technical. The individual is in a dilemma: either he decides to safeguard his freedom of choice, chooses to use traditional, personal, moral, or empirical means, thereby entering into competition with a power against which there is no efficacious defense and before which he must suffer defeat; or he decides to accept technical necessity, in which case he will himself be the victor, but only by submitting irreparably to technical slavery. In effect he has no freedom of choice." (Ellul, Technological Society, p. 84) I would maintain, however, that man has a choice, but he must first recognize the inertia in technology before his choice can become real rather than simply notional.

CHAPTER VI

IMPLICATIONS

In this last chapter I wish to discuss the implications of the argument that has been made and to offer tentative recommendations, not prescriptions, for the resolution of the difficulties that have been raised in the context of Tanzania. Before attending to this, it is appropriate to consider the argument in summary form.

It will be recalled that the generating question of this study has been: To what extent does certification influence the role to be played by education in societal change? It has been shown in Chapter I that education and society are closely related and that, in addition, education has recently been called upon to promote social change. The form of change that education is most commonly called upon to promote is economic development--that is, quantifiable economic growth. In other words, education is treated as an investment in human capital. But it has also been pointed out that economic development for underdeveloped countries is in effect a form of transfer since it seeks to make "them" like "us" and robs them of their autonomy, whatever their intentions and aspirations toward attaining a qualitatively different kind of society.

Chapter II has considered the example of a particular underdeveloped country--Tanzania--that has, since 1967, eschewed the commonly accepted formulation of development as primarily economic and has virtually redefined for its own purposes the notion of development. This redefinition of development does not exclude economic growth but posits it as a goal to be attained along with, but not at the cost of, self-reliance (self-respect and self-sufficiency), a fairer, more equitable, distribution of all social goods, and the enhancement of the dignity and equality of all persons in the society. With this broader goal of development in mind, education's rôle in Tanzanian society is redefined to promote not only economic growth but also certain values, attitudes and behaviors that may not yet be widespread in the society. Education's role is to be primarily integrative rather than instrumental. To this end, the policy statement, "Education for Self-Reliance," calls for a reorganization and a reorientation of schools. It has been argued, however, that, while the proposed changes in schools may be necessary to make them agents of integration and to change the values, attitudes and behaviors in the society, these changes are not sufficient so long as certification remains unchanged.

The influence of certification on education and on the society has been analyzed in Chapter III. It has been shown that, because of the ways in which certificates are used and the ways in which they are obtained, certification is a limited and limiting institution. It

is not as efficient, equitable or meritocratic as is commonly believed, and it helps to reduce persons to a single dimension. Thus, it has been argued that action is necessary on all three aspects of certification: that certificates should be used with greater caution, that alternative avenues should be opened for their acquisition, and that they should be made more specific in what they purport to attest to.

The effect of certification in Tanzania has then been considered in Chapter IV. It has been shown that certification does not serve all the broad goals of the society. Rather, it acts as a divisive element in the society, exerting considerable influence over individuals, the schools, the economy and the society as a whole. Thus, if the broad goals of the society are to be attained, certification must be changed. Since certification stands like a Janus between education and society, exerting an influence on both, it represents a point of leverage at which to make changes in both.

Chapter V is not a part of the argument proper. It is an attempt to explain why certification, unlike many other inherited institutions in Tanzania has not been greatly changed or even been examined most carefully. It has been shown that certification continues to function through the effect of technological inertia as a transferred rather than a transformed institution and thereby distorts the relationship of education as a means to the ends of socialism. Thus, certification serves primarily as a means to economic development which is only one

of the goals of socialism. By explaining why certification distorts the relationship of means to ends, it is shown once more that a fundamental, not superficial, reexamination of this institution is needed.

Implications

What are the implications of this argument? In the context of Tanzania, it is clear that certification is impeding the role that education has been assigned to play in bringing about societal change. This role is to promote equality, cooperation, and self-reliance in the society and to produce creative, intellectually independent persons who, whether they are allocated to specialist roles or not, are an integral rather than separate or special part of the society. In these circumstances, the particular changes to be made in certification may be mediated by the aspired to and intended societal goals of Tanzania.

The argument also has implications in a broader context, for in any society that is hierarchical and that uses certification as a means of differentiating among individuals, certification exerts a considerable influence on the role of education. For example, in almost all societies today there is expressed, in varying degrees, a concern for the democratization of education--equal educational opportunity--and certification has a bearing on this concern. If the direction of societal change is unclear, if the social goals are implicit rather

than explicit, then it may not be clear what specific changes would be appropriate in this institution. But in Tanzania the goals that are explicated are based on fundamental, enduring and universal ideals, ideals that are implicit in most, if not all, societies. That they remain implicit and assigned to the realm of lofty ideals speaks to the difficulty of their attainment and the fact that they are tempered by the practical exigencies of day-to-day living. That is to say, the argument that certification is in need of change has implications for all societies, whether or not the role of education is clearly defined or the direction of societal change clearly intended.

The widest implication is that to consider changes in the institution of certification calls for an examination and clarification of the purposes of education, especially within the framework of the goals of society. For certification is a means to an end; it is not an end in itself. (Or it ought not to be.) It provides a starting point from which to consider what is feasible within the perspective of what is desirable--the purposes of education and the goals of society.

Let me attend then to what might be feasible and desirable in Tanzania and, from this example, derive some broad principles to be applied and fundamental questions to be asked in any society.

Consider what alternatives are open to Tanzania. Despite the argument that has been made of the necessity for changes to be made in certification, action might be postponed, as it was in 1967.¹ It

might be felt that there are already numerous changes being made at this time in different institutions in the society. It could be argued that further changes, particularly in an area that ostensibly offers a degree of certainty and assurance, might create too much uncertainty and upset the fragile stability within which so much is already being attempted.² A postponement, however, is a de facto decision to do nothing, resulting in a continuance--even an extension--of a dual society comprised of a small enclave of technocrats in a larger agricultural society which might, nevertheless, attempt to live according to the principles of ujamaa. As the privileged position of the technocrats became more apparent, more people would be dissatisfied with their own lot and would attempt to escape from the rural areas. As they added to the congestion of the urban areas, it is in these areas that further social improvements would be needed, ever increasing the gap between the amenities of the rural and urban areas. This alternative need not be spelled out in greater detail since it is a simple extrapolation of existing circumstances in most underdeveloped countries, especially in Africa.

Why is it important that a decision to take action not be postponed? One reason, as we have said, is that inequities between persons and between geographical areas are more likely to increase than decrease. But the main reason is that the problems are continually brought to the fore and made apparent by the overriding concern expressed in all policy statements for the equality of persons and for

distributive justice. In this light a misfit between the symbolic realm of values and the practical realm of behavior cannot pass for long unnoticed and unattended without serious social repercussions.

What other alternatives are there? To decide to take action is only the first step. It may be appropriate to determine whether there are other countries from which Tanzania might borrow and transform elements to fit its particular circumstances. At a superficial level China might seem a possible candidate. There would seem to be several reasons, however, why Tanzania might be unwilling to "borrow" from China. The first is the inequality in national status. Tanzania would risk being dominated by China, being in a position only of receiving a transfer rather than being in a position to transform whatever elements it determined it needed. In any case Tanzania has already shown its reluctance to be drawn too closely into the Chinese sphere of economic influence.³ It may be equally reluctant to be drawn into its sphere of social and cultural influence. The second reason is that it is not clear (particularly to a Western observer⁴) whether the Chinese experience should be deemed successful or not, and what the costs of success are likely to be. That is to say, the Chinese example should perhaps best be regarded as an open case since the consequences are not clear--the results are, as it were, not yet in.⁵ The third reason, which arises in part through our partial and possibly biased knowledge, is the degree of coercion that has been used in bringing about the "cultural revolution." Nyerere has more than once

stressed his abhorrence for compulsion, insisting that persuasion and demonstrable results are more appropriate in an open society.⁶ The last reason is the virtual closing of Chinese society to outside scrutiny and outside influence during its presumably most painful and unstable period.

Indeed, the first two reasons--inequality of status and an absence of clear "results" of change--make it unlikely that Tanzania would "borrow" on a large scale from China or any other country.

There does, however, exist the possibility of borrowing on a small scale from a number of countries. In this way elements that seem to fit with Tanzania's policy goals might be borrowed from a variety of situations, and, providing they are not subject to technological inertia, they might be transformed. Such transformations might then result in a qualitatively different "whole," an innovation. It is this alternative that seems to be the most fruitful to explore.

In order to discuss this alternative, it will be necessary to expand the scope of inquiry beyond the earlier analytic framework of the three aspects of certification--certificates, their acquisition and their usage. One reason for this expansion is that to retain our earlier framework would be to restrict discussion to changes only in the three aspects of certification--that is, to ways in which it might be improved. But certification, though a powerful factor, is not the only one in this multi-dimensional problem. Certification has been described as a knot at which the individual, the formal educational

institutions, the economic sector and the society all meet. Since changes in certification will inevitably affect these, they too must be included directly.

But a further reason to broaden the framework is that the nature of certification is such that it is able to offer only limited bits of knowledge about persons and competencies. It will be recalled that certification is a Janus-like institution, but it is limited because it can only describe a person in terms of the schooling he has received. That is, because it can only describe persons by what they have attained, it is effective primarily in its backward-looking aspect. It can also only describe persons in relation to a group or class of other certificate-holders. To deal with the potential of persons and with the competence of persons--which call for valuations, not measurements--credentials must be utilized. Persons, competence and credentials are important aspects of the problems that have been presented. Changes in the institution of certification must take cognizance of these aspects.

A framework which incorporates all these components may be provided by the interrelationships among competence, tasks and incentives as appropriate representatives in the realms of conduct, technology and meanings. Thus, to consider what changes might be made in certification, we may begin by asking the following questions: What is competence and how is it acquired? How can the tasks to be carried out in society be formulated and operationalized? What

incentives need to be offered for competence, tasks and education? These questions will not be answered in any detail but rather in broad and general outline, for the purpose of this discussion is heuristic, not definitive.

A Possible Solution

The purpose of education in Tanzania is to promote equality, cooperation and self-reliance in the society and to produce persons who are creative, intellectually independent and committed to the service of the total community. How may this purpose be operationalized given our discussion of certification?

Competence

We usually tend to think of competence as it applies to a particular task. Thus, we inquire of an individual as to whether he is competent in his job. Now, it has been argued that an answer to such an inquiry cannot be gained from looking only at the certificates an individual holds; it is necessary to inquire further from the people with whom he works. But such an inquiry in Tanzania needs to go beyond whether he is competent in his job to consider whether he is imbued also with a sense of personal commitment to give service to others and to cooperate with his fellows. To consider competence in Tanzania we must look beyond the job a person does to the kind of person he is--that is, to what he brings to the job in addition to the

skills that the particular job requires. Competence then may best be described in terms of persons than in terms of jobs.

This discussion of a possible resolution of Tanzania's difficulties begins, then, with a consideration of what competence means in terms of personal commitment rather than in terms of technical proficiency. For it is assumed that high level technical competence may be reasonably easy to acquire when such small numbers are involved. That is, if only 0.3% of the population is to be involved in high level manpower tasks, it may be feasible to seek among those who have demonstrated personal competence those who may also acquire high level technical proficiency.

A competent person in the Tanzanian sense would be one who demonstrates through his actions and behaviors that he feels himself fundamentally equal, not superior or inferior, to his fellows. He feels himself to be an integral part of any group that he finds himself in, and the predominating mode of behavior in the group would be cooperation. Now, in any group, persons are patently not equal in all respects. Different persons have different strengths and weaknesses. Through cooperation in the group, there is a responsibility for the strong in one respect to help the weak. Through cooperation and a responsibility to serve, a group may become self-reliant, self-sufficient and self-confident.

It is not difficult to find persons who behave this way in a group. A family and even a small community of persons often behaves

in this manner. They are bonded together by blood or a communality of interests, by reciprocity and by trust.⁷ It is more difficult to find individuals from different groups that act this way. Their behavior may be characterized by reciprocity but trust is replaced by a social contract that guarantees any obligations through the threat of legal sanctions.

Socialism in Tanzania is "man-centered," its purpose is the enhancement of human dignity and social equality, not the pursuit of wealth or national grandeur.⁸ It is based on ujamaa--familyhood.⁹ And the family is a wide network of relationships that extends far beyond the nuclear family; reciprocity and trust extend to a large group of people. The issue then is how to extend the commitment that is already present in extended families to include all within the society, how to enable a person to be competent outside of his family, how to extend trust and confidence beyond small group boundaries. This is not an easy issue since there can be no guarantees, no sure ways to attain this. We are dealing with personal relationships based on trust and confidence, not on contracts. We can then only consider what institutions exist as a basis upon which competence may be actualized.

Let me begin with the family and the primary socialization process and then go on to the political structure and the formal educational and economic institutions.

The family.--The family and the primary socialization process are most important in providing a firm basis for the development of competence. It is within the family that a person develops a sense of belonging and a sense of security and confidence within the community. Without this basic assurance of self in relation to others, a person may too easily be alienated from the roots of his community and feel himself always separate from others.

Of course, it is unrealistic to expect that the extended family and the traditional patterns of socialization have remained unaltered over the last 80 years when what is traditional has been treated as "primitive" and as a hindrance to "modernization." But it may be realistic to expect that sufficient of the traditional patterns remain and may serve as a basis for strengthening the socialization process to encourage competence. After all, less than 50% of all children presently enter primary school, and, of those who do, not all enter at the official entry age of seven years.¹⁰ And in the current climate of asserting the legitimacy of the African (pre-colonial) past,¹¹ a re-assessment of the advantages and disadvantages of traditional family life is most feasible.

In order for the family to provide the basis for personal competence, it must assume full responsibility for bringing up the young. Schools should be regarded as a supplement to, not a replacement for, family responsibilities. This presupposes that a demythification and de-legitimation¹² of schools is possible. While

such a task may seem formidable, it is well to remember that for many of those in positions of responsibility today, schooling was a supplement to their upbringing in a traditional family setting. Nyerere, for example, was 12 years old before he attended school.¹³

The political structure.--We may think of Tanzanian society as being composed of a collectivity of all family groups and the TANU party system as a means of uniting these groups and binding them together. That is, the family is the horizontal base of society, and the TANU party system from the 10-house cell level up to Parliament is the vertical structure which rests upon this base. The 10-house cell system is a means of linking each family group with other family groups, each village with other villages, each district with other districts, and each region with the other regions through the elected leaders of each cell. Ideally, it is a network through which two-way communication between the leaders and the led is always open. It is in order to facilitate this communication and to reduce bureaucratic delays and red tape by allowing decisions and actions to be taken at the most appropriate level that the governmental structure is being decentralized.¹⁴ For the ideal to be realized, the leaders and their followers must trust each other; the leaders must accept that the common man is capable of good judgment, and the common man must believe what the leaders promise.¹⁵ That there are so many levels of leadership means that it should be possible to narrow the gap between leaders and led and to build on the trust and

competence of persons. And it is the competence of a person as a person, not the competence of an individual as a politician or as a democrat, that is essential. The political structure, like the socialization process, must be strengthened through persons demonstrating their competence and, most importantly, being trusted to do this. Decentralization is intended to do this:

[It] is based on the principle that more and more people must be trusted with responsibility--that is its whole purpose....If we are to succeed in reducing the amount of bureaucracy and in making a reality of local control... greater trust will have to be placed in people actually doing the development work...the problem of misuse of public money may be reduced as people realize what their theft means in terms of a school not built or a teacher not employed to teach the children in their own area.... Our money must be properly used for the nation's purposes, and those who would divert it to their personal needs must be prevented, and if not prevented then caught and very severely punished. But because a few people are untrustworthy, we must not behave as if everybody is untrustworthy.¹⁶

There are two fundamental assumptions in decentralization-- many more persons have the potential to express themselves as competent in a wider range of tasks than is generally assumed, and persons can live as easily in trust as they can in distrust.

Schools.--It will be recalled that, stemming from "Education for Self-Reliance," schools were to be changed to make them into communities. As communities, schools would clearly supplement the development of competence in persons begun in the family. But it was argued earlier that certification and the instrumental function of schools are hindering the development of egalitarian, cooperative, ~~service-oriented persons to reside in those communities.~~

In order to make primary schools into communities, it might be feasible to relieve them of their instrumental function. It is intended that primary schooling should be complete, terminal and undifferentiated and should include a basic minimum education for all children. To make these schools terminal for all children would imply the need to create a hiatus between primary schooling and any further schooling and thus postpone differentiation and selection to a later point in the system. Before attending to what form such selection might take, let me consider the impact this might have beyond the concern for a community organization of schools.

The basic assumption underlying the intention to make primary schooling a complete, undifferentiated, universal experience would seem to be that all children, with perhaps a very few exceptions, are capable of completing this form of schooling. That is, completion is the only mark of success. To act on this assumption calls for changes in the way schools behave with regard to success and failure, norm-based tests and the distribution of ability. For to assume that all are equally capable of success means the reorientation of schools to innovations such as mastery learning,¹⁷ where achievement, not time, is held as a constant. Mastery learning as a pedagogical tool has the potential to equalize and to eliminate differentiation. It is of course possible to differentiate on the basis of the variations in time taken to master certain skills, but differentiation would be neither necessary nor desirable--though not preventable--in this context.

In order for schools to promote cooperative behavior, some form of group cooperative learning¹⁸ (perhaps through something like the cell system) might be practiced. Group projects and mastery learning together would go some way toward inculcating attitudes of equality and cooperation within the classroom and the school. And if parents were actively involved rather than excluded because they hinder the routine of school life, schools might be made into communal institutions.

A hiatus between primary and further schooling could well be utilized to oblige all school leavers to do their national service at this time. Under the present system those who go on to secondary and higher education fulfill their national service obligations at the completion of their schooling and training. They are usually directed to enter the occupation they have been prepared for but draw only a minimum salary rather than the salary that customarily goes with that job. Resentment against these conditions resulted in the student crisis of 1966.¹⁹ The advantage of the present system is that the students are "high level manpower" when they enter national service. The disadvantage is that they feel themselves to be exploited and seemingly resent the service they are obliged to give.

Besides relieving the primary schools of a differentiation and selection function, there would be several other advantages accruing from students' doing their national service at the completion of primary schooling. Whatever the arrangements that were made about

mastery learning, the school leavers would be young adolescents-- 14 to 16 years of age. At this age in a traditional society, youths underwent initiation into adult society. At this age in a modern Western society, young people appear to undergo a crisis of selfhood in which authority figures are challenged, peers are emulated and idealism is explored most intensely.²⁰ That is not to suggest that national service should be a revival of traditional initiation or that it should be a means of disciplining the young. Rather, it is to suggest that from both a social and a developmental viewpoint, national service could provide the authority and peer group support that persons of this age appear to need and the opportunity for idealistic action they seem capable of. But to provide these, national service must be meaningful and useful, for what young people find most distressing and constraining in schools at this time is the apparent meaninglessness and uselessness of schoolwork. That is, national service ought to offer the opportunity for undertaking socially useful tasks,²¹ acquiring some basic vocational skill and cooperating in group activities.

But what of selection for further schooling or training? This could be done during and at the end of the period of national service. It could be done by either a written or a practical examination, though the danger of examinations' assuming overriding importance must be kept in mind. Or it could be done on the basis of an evaluation by both peers and superiors. Either individuals alone or groups of

individuals who have worked and cooperated together could be selected. All who enter the national service together would do so on an equal basis and would be treated as equals. Nevertheless, the period of service should offer the opportunity for those with particular talents and/or "natural" leadership abilities to demonstrate these both to peers and superiors. The utilization of peer valuation and selection is important since persons being selected for further schooling or for further specialized training are in effect being selected for leadership roles, and Tanzania cannot afford financially or symbolically to educate separate cadres of technocrats and leaders. Those who are selected should feel obliged (and the opportunity should be available to remind them of their obligation) to serve those who have elected them.

Many people may feel that selection is too important a matter for peers to be involved in, but it should be borne in mind that election to political office is equally important and in a democracy it is believed that it is more desirable to have a system of peer selection than selection by superiors. But whatever one's feelings about the importance of selection, the present system is, for a number of reasons, "more like a lottery than a rational mechanism for ferreting out skills."²² One further element might be included in the selection process for further schooling, perhaps at the completion of secondary schooling, and that is the responsibility to teach as well as to learn. Teaching as a service may close the gap between the

schooled and the unschooled and also enhance the understanding of what has been learned.

If there were to be a hiatus between primary and secondary schooling, secondary schools would need to be further reorganized. The students would not be children but young adults, both developmentally and experientially. If the national service had also included some measure of formal schooling as well as training, the content of secondary schooling would need re-focusing, and the method of instruction re-assessing, as would the social organization of the schools. It might be that secondary school would need to be more like junior college type institutions, with students having greater responsibility for what and how they are to learn.

Changes in secondary schools might effect changes at the university level as well. Indeed, if the work-study pattern of the primary school-national service-secondary school were to be extended, it might be appropriate to reconsider the role of the university entirely. At present the university is seen as a producer of technocrats, but it might be more suitable either as a center for intellectual inquiry²³ or as an adult education college.²⁴ In either case a clear link with Kivukoni College, the party leadership college,²⁵ seems advisable to ensure a continuing dialogue between the intelligentsia and the grassroots leaders.

Economic institutions.--My concern thus far has been with what competence means in personal terms and how existing institutions

might be reoriented in order for persons to acquire such competence.

There is also technical competence in a job, though personal and technical competence cannot be regarded as entirely separable when the economic institutions intended are ujamaa villages, cooperatives and para-statal corporations with worker participation.

The work-study pattern proposed earlier could be extended to training institutions, whether they are concerned with training doctors, teachers, engineers or technicians. It would seem that to acquire technical competence beyond certified preparation, some combination of specialized training and on-the-job training in addition to formal schooling is essential. What the optimum combination is will vary in different occupations and with different master-learner relationships. Let it suffice for the moment to suggest that in this context at least the front-loading system²⁶ is not as desirable for acquiring technical and personal competence as would be a work-study pattern.²⁷

Tasks

Let me turn now to the question of how the tasks to be carried out in the society can best be formulated and operationalized. This will only be dealt with briefly here for the major work must be carried out in Tanzania. Also, the issues are of a different kind from those relating to competence. For while competence is related to persons and to human capacities, many of the tasks to be carried out in a

society are of an impersonal nature. They are more than the sum of what persons wish to do, and they are derived from an impersonal source--the abstraction that we call "society." For example, within the family tasks may be clearly perceived to be related to personal needs and capacities, but society calls for certain tasks that seem only tenuously related to personal wellbeing. Some tasks are regarded as "dirty" work, some involve decisions about society as a whole and about relations with other societies.

There are two main reasons for considering a reformulation of tasks in Tanzania. The first is that any changes that are made in the formal educational system should affect the present definition of tasks, at least in so far as formal educational qualifications are thought to be necessary for a particular task. The second is that the techniques of manpower planning seem inappropriate and inadequate to deal with the specific needs of Tanzania, especially if it embarks on further educational changes.

Let me deal first with manpower planning. The great advantages of this technique are that

It is tangible, quickly comprehended, less difficult to act upon than many schemes for planning education, and it gives numerical answers.²⁸

It also offers a mechanistic certainty. But inherent in all planning, since it deals with the future which is unknown, is uncertainty. With the kind of changes already underway in Tanzania, manpower planning is not sufficiently flexible to take account of

this. For example, decentralization proposes wide-ranging changes, not only in the central government organization, but also in the jobs that people will be expected to do. Thus:

People who have had a job called one thing, with its own recognized status, will get a different job, the importance of which may not be immediately understood.

These disturbances are inevitable, but they must be effected with the minimum of trouble to individual employees, and where a person cannot be absorbed into the new scheme, he or she must be paid full severance allowance, etc. But there is another side to this: many people who are now frustrated will find an outlet for their energy and a real opportunity for the use of initiative in the service of the community.²⁹

The certainty that manpower planning can offer is hardly appropriate to deal with this kind of change and uncertainty about what jobs there actually are, how they are to be defined and who is to do them.

There is another and different kind of disadvantage that goes with manpower planning, and that is its relationship to economic development. Such planning is assumed to be necessary for economic development. The Survey of High and Middle Level Manpower Requirements and Resources, for example, states:

[Tanzania] is the only country in Africa to adopt and implement a policy of investing in post-primary educational and training institutions only in accordance with the kinds and numbers of such skills needed for the economic development of the nation.³⁰

Yet, as Cash points out, it is economic development that is necessary if high level manpower planning is to be successful.

This converse relationship is recognized in the literature on planning.³¹

Thus, there is no guarantee that the use of manpower planning will produce the results that are sought and expected.³² Moreover, once manpower planning has been adopted, it may have unexpected and undesired consequences. Indeed, we argued earlier that manpower planning, through its emphasis on certification, is promoting the emergence of a technocratic elite antithetical in orientation to the socialist goals of Tanzania. This is not to call for the abolition of planning per se. It is probable that, given Tanzania's goals, there is a greater need for planning there than elsewhere. But the need is for planning of a different nature, one that is able to involve as many persons as possible--technocrats, leaders, thinkers, farmers, everyone. This need is recognized in the statement on decentralization:

[I]n order to make a reality of our policies of socialism and self-reliance, the planning and control of development in this country must be exercised at local level [sic] to a much greater extent than at present.³³

A planning process that may be appropriate is one being developed and refined by Ziegler³⁴ which is open to participation by anyone, not only by "expert" planners, and which demands that attention be paid to long term goals and to the values of the participants as well as to short term needs. It is a means of planning for education that does not treat education simply as an economic investment but as a constituent part of social change.

But what of the formulation of task definitions and job descriptions? It seems clear that in a climate of change, what is called for in the undertaking of any tasks is creativeness and flexibility as well as technical proficiency. It is not altogether clear what makes for technical proficiency, though it should be possible to identify specific skill requirements by undertaking

a careful analysis of the relation between (a) precise job content; (b) extent and nature of education, training and experience; and (c) performance on the job.³⁵

While an analysis of this kind might identify specific skills, too rigid a definition of tasks may discourage flexibility and initiative.³⁶ These may be better encouraged by a system of job sharing or even job rotation. The conditions in Tanzania almost call for "jacks of all trades" rather than technocrats, so that persons with some measure of general training may be capable of adapting to new and different situations. There would be many problems to be dealt with in identifying--and perhaps certifying--specific skills and formulating general task descriptions, but it may be worth weighing them in the face of the advantages and disadvantages of a division and specialization of work roles. This task would need to include political and social considerations as well as technical ones. A society has need of leaders, technocrats, democrats and thinkers; but it has need of persons who are capable of being all of these as well.

The implications of a reexamination of tasks are that, first, an opportunity is available to reassess the particular skills that are needed in a society in ways that are not bound by tradition or narrow definitions of occupations. The opportunity is available even to make the following a possibility:

Job requirements are not something according to which people should be trained. We should rather think in terms of jobs as they ought to be in order to satisfy human beings, and then train people for such jobs. Maybe that is the most effective means of making jobs become what they ought to be.³⁷

A second implication of the reexamination of tasks is that different planning methods need to be investigated which are flexible, which are sensitive to people's intentions and wishes, and which may also serve as an educative and explicative device.

Incentives

What incentives might be offered for competence, tasks and education? Incentives may be internal or external to the person, intrinsic or extrinsic to the task or activity. One of the difficulties associated with certification is that the incentives are largely external and extrinsic. To acquire a certificate an individual must satisfy externally determined criteria. Self-evaluation plays only a minor part, and there is little acknowledgement of the intrinsic value of education. The rewards that go with certificates are also external--high salaries and high status occupations--and there is

virtually no means of withholding these rewards if a person is not technically capable and does not fulfill his service obligations.

To overcome these difficulties, incentives need to be internal as well as external. But there is a problem with this. Where values such as equality are already internalized, they can be utilized as an incentive. Where such values are not internalized, there must be incentives for people to accept these values. The issue then becomes one of how to operationalize and internalize ideals. This is an enormously complicated issue and no attempt will be made to deal with it in any but a cursory fashion.

Clearly, competence involves perceptions of self-worth, but it also involves recognition of worth by peers, superiors and inferiors. In the development of positive perceptions of self, adjustments to all three fundamental human relations--with those older or superior, younger or weaker, and contemporary or equal--are necessary. Through these relationships a person learns attitudes of humility, responsibility and equality with the corresponding behaviors of obedience, leadership and cooperation.³⁸ It is through the tensions and adjustments to these relationships that a person internalizes and operationalizes these particular ideals. And the technical component of competence may be best served by the notion of mastery learning, by which various levels of performance are set and against which a person may test himself.

The encouragement of "natural leadership" is also important to the concept of competence, even though not everyone aspires to display or is necessarily capable of displaying leadership of a large group. Leadership carries risks and obligations as well as privileges. It depends on personal prestige and an ability to inspire confidence.³⁹ It calls for generosity, ingenuity, initiative and reciprocity.⁴⁰ And consent is the origin and legitimacy of, and ultimately the limit to, this form of leadership.⁴¹ Although not all may be capable of displaying leadership, all are capable of distinguishing between wise and unwise leaders and of participating in the choice (and rejection) of those who both represent and serve them. That all may be encouraged to aspire to, and in some circumstances be obliged to, serve as leaders of a group adds a further incentive to attain competence.

Certain tasks, as well as being intrinsically appealing to persons, carry with them external incentives. Other tasks appear to be neither intrinsically appealing nor externally rewarding. Many professional tasks fall into the first class and many manual tasks into the second. If we wish to reconsider the incentives to be offered for tasks in a society concerned primarily with equity, it may be necessary to offer greater external incentives for tasks which at present do not appear to be intrinsically appealing, and to lessen the external incentives for those which appear to be intrinsically appealing, in order to strike a balance

between the two. It might be argued, for example, that many persons would still wish to become doctors even if this task were not so highly paid since the internal incentive of the task and the intrinsic appeal to the person is high. To reconsider what incentives might be offered for any particular task calls first for an assessment of the task in the light of its apparent intrinsic appeal to persons. External incentives then might be used as a means of reconciling persons to tasks that appear to have little intrinsic appeal. Ideally, all tasks would have intrinsic value, since manual tasks, for example, need not in principle be automatically looked down upon. There would then be a value system different from that which seems to exist today. A different value system is one of the aims of ujamaa.

Whether we are concerned with incentives for competence, tasks or the acceptance of values, education is the most important factor affecting all three. But it is the intrinsic and internalized value of education (not schooling) that affects all three and that can serve as incentive for them. The discussion of education in Chapter I, however, illustrates the way education is regarded in society today--as an instrument of society or the individual. It seems that the growing interest in or concern for recurrent, permanent lifelong education⁴² reflects in part a recognition of the intrinsic value of education. But the justifications for recurrent education are formulated in social and economic terms, as means for example to

retrain workers, to equalize schooling disparities or to give access to social mobility. It is as if our whole thinking was locked into a mindset in which education cannot be justified as an end in itself. To unlock that mindset is "to accept that human beings both can and should develop and learn all through their lives."⁴³ To act on that acceptance, to line out both the opportunities and the responsibilities is probably the most difficult feat to be attempted in a society.

Further Questions

The main purpose of this exploration has been to raise questions about what might be possible and desirable in Tanzania; it has not been to provide answers. Let me then summarize the issues that have been raised and formulate them in such a way as to illustrate their research and policy implications, while recognizing that for some of the issues there is a need for further reflection and the raising of further questions.

1. Any definition of competence would seem to depend in large part on the particular social conditions at a particular time. In the Tanzanian context such a definition is couched most appropriately in terms first of personal competence and then technical competence. This may necessitate a re-ordering of priorities in institutional terms. It seems intuitively clear that this re-ordering requires the active participation of the members of the

society, since they must be enabled to demonstrate their competence and also determine how and where that competence is to be acquired. Thus, there must be active and open discussion of the meaning and content of a basic minimum education (not just schooling) and the role to be played by the family, the political party, and the schools in educating for competence in the society. This has clear implications for the role of adult education, for, instead of aiming to teach adults, it may be more appropriate to involve them directly and actively in discussions of what education means for them and for their children.

2. While education for competence appears to be feasible in a community, it is not clear whether this education is a sufficient preparation compatible with and feasible for living in a society; that is, whether societal tasks are comparable with communal tasks. If they are not clearly comparable, consideration must be given to the kinds of extra-communal institutions which would provide transition points or bridges to either engender a different kind of competence or to narrow the gap between community and society. This may have implications for schools and also for the incentives to be offered to ensure that persons do not betray the trust given to them and to lessen the fear and distrust of strangers.

3. In a society undergoing change, competence would seem to imply also adaptability, flexibility and creativeness. To train

persons to be adaptable appears to be a contradiction in terms. It would seem that personal competence and self-confidence might play a part in educating persons to be adaptable. Is there also a part to be played by involving them in planning? Consideration might be given to the potential of the planning process to offer, not certainty, but an expression and explication of aspirations, intentions and capabilities; that is, to include planning as a part of the educational process.

4. To make schools into communities suggests that they would be "schools without walls," institutions without clearcut boundaries in time and space. This would have implications for the linkages between formal and informal educational institutions, adult and youth education, and also for the roles to be played by all adults. Consideration would need to be given to the question of whether all adults could or should be expected to be teachers to a greater or lesser extent,⁴⁴ and the effect this would have on the role, training, status and incentives for professional teachers.

5. There are a number of developmental issues that require research before their policy implications can become clear. They relate to perceptions of self and community bonds, to the needs of young children and adolescents, to the formation of value concepts and the concrete expressions of idealism.

6. The various learning situations need to be reexamined, and consideration needs to be given to the potential costs and

benefits of mastery learning (both methods and content), group cooperation, master (practitioner)-learner relationships, and work-study patterns. Likewise, educational and societal tasks need to be reexamined, and consideration needs to be given to the incentives, both internal and external, which would be offered for technical competence.

7. The selection mechanisms to be utilized might include the valuation and selection of individuals or groups by peers or by superiors or by both. Where measurement as well as evaluation is deemed necessary, true entrance examinations, separate and distinct from any previous exit examinations or requirements, would seem to be called for.⁴⁵ But, whatever the mechanisms utilized, it should be made clear that persons are selected into an obligation structure, not just an opportunity structure, that selection carries with it duties and responsibilities as well as some privileges.⁴⁶

In this exploration of a possible solution to Tanzania's problems, there has been little direct comment on certification. It should, however, be clear that certification is not to be retained as a means of legitimating social meanings and values, economic tasks and perceptions of self-worth. Certificates may be retained as way stations along a path of mastery learning, for specific skills but not for specific occupations. There is then a need for the acknowledgment of a greater usage of credentials and a means of guarding against the misuse and abuse of the trust that goes with them.

There has also been no attempt to judge the feasibility of implementing the suggestions that have been made. This exploration has been just that. Discussion of implementation would be appropriate had a decision been made to take action on certification. But it should be noted that many of the suggestions could be implemented without that decision, for they do not involve extensive changes but only minor modifications of existing practices. It is only when taken together that they may provide the conditions necessary for the broad goals of society to be attained.

Conclusions

What conclusions may be drawn from this study? As this last exploration may indicate, to make changes in certification is rather like lifting the lid of Pandora's Box. There are released a multitude of possibilities, both good and bad. That the potential good has been stressed is an indication that hope still remains. Leaving the metaphor aside, this exploration illustrates that a solution to the difficulties of certification is far from a simple matter, nor is it without difficulties itself. What must be weighed is a particular set of difficulties that are known and predictable against a different set of difficulties that are not so tangible but may still be anticipated.

The present difficulties have shown that certification places a veritable straightjacket on education. It confines education as

a means to only certain ends. It calls for conformity and discourages diversity--both among individuals and among societies. It is posed as a meritocratic equalizer but serves as a means to legitimize a class structure. It is acted on as if it were objective and scientific when it is neither, as those who manage to elude it can testify.

The study has mainly been concerned with Tanzania and its particular problems. Although these problems are in some ways unique to Tanzania, they are also relevant to all societies. They are problems of societal change, of changing or being changed, of choices to be made between technological and human advancement, of intentions and aspirations about the future. It is possible then to learn from the example that Tanzania sets.

And central to all the problems is the role that education is expected to and is able to play in a society. While the study has shown that certification is hindering the role that education is expected to play in bringing about change in a particular society, it is still an open question as to whether education is able, by itself, to bring about social change. It may lay the foundations for social change, but action is also needed by the society as a whole. In order for education to play its part, the role of certification can and should be treated as a leverage point, a starting point and focus from which other changes might be made possible.

NOTES TO CHAPTER VI

¹See Chapter II, p. 37, and Nyerere, "Education for Self-Reliance," Ujamaa, pp. 63, 71.

²As these changes threaten the position of the educated elite, resistance from them might be expected and could take a variety of forms from passive and bureaucratized non-cooperation to even support of a coup d'etat.

³See Chapter II, p. 33, and Africa, No. 18, February 1973, p. 49. Also: Julius K. Nyerere, Freedom and Socialism: Uhuru na Ujamaa (Dar-es-Salaam: Oxford University Press, 1968), especially "Tanzania Unjustly Accused," p. 55; "Problems of East African Co-operation," p. 67; and "The Dilemma of a Pan-Africanist," p. 211.

⁴Cf. Franz Schurmann, Ideology and Organization in Communist China (Berkeley: University of California Press, Second Edition, Enlarged, 1971), who writes: "Since the Chinese often pair the terms culture and education (wen-chiao), we can assume that the Cultural Revolution related to some of the most basic educational problems in China....What these educational problems and student grievances were is not easy to discover. Despite the welter of documentation which has come out of the Cultural Revolution, there is little straight-forward talk by the revolutionary rebels about the real issues." (pp. 585-6)

⁵In a sense this is true of all societies undergoing rapid change.

⁶See: Nyerere, "The Varied Paths to Socialism," and "Socialism and Rural Development," Ujamaa, pp. 84, 89 and 130-135.

⁷For a discussion of the idea of community in contrast to society, see: Thomas F. Green, "What Should Our Schools Become?" (Syracuse: Educational Policy Research Center, 1971, discussion draft, mimeo.); Robert A. Nisbet, The Sociological Tradition (New York: Basic Books, 1966), Chapter III, "Community," pp. 47-106.

⁸See: Nyerere, "The Purpose Is Man," Ujamaa, p. 92.

⁹See: Nyerere, "Ujamaa--The Basis of African Socialism," Ujamaa, pp. 1-12.

¹⁰There are several cognitive and affective issues here that merit research which is beyond the scope of this study. Let it suffice for the moment to indicate that the optimum point of entry to schools in terms of cognitive development and of "weaning" from the family are still open to discussion, both in terms of individual readiness and cultural relativeness. Further investigation might begin with the work of Piaget, Erikson, Kagan and Duckworth.

¹¹See for example the so-called "Dar" school of historical research and Terence O. Ranger (ed.), Emerging Themes of African History (Nairobi: East African Publishing House, 1971).

¹²Cf. the underlying justification for "de-schooling" society. See for example: Ivan Illich, Deschooling Society (New York: Harrow Books, 1972).

¹³Ronald Segal, African Profiles (London: Penguin Books, 1962), p. 109.

¹⁴Julius K. Nyerere, "Decentralization" (Dar-es-Salaam: Government Printer, 1972).

¹⁵The Watergate Affair illustrates not simply a crisis of confidence in President Nixon. Certainly doubts are expressed about his ability to govern with the people's assent, though not over his ability to rule. The more serious aspect is the tampering with the electoral process (by his supporters) which arose from a distrust of the common man's being capable of exercising good judgment.

¹⁶Nyerere, "Decentralization," pp. 10-11.

¹⁷See for example: J. H. Block, Mastery Learning: Theory and Practice (New York: Holt, Rinehart and Winston, 1971).

¹⁸See for example: Urie Bronfenbrunner, Two Worlds of Childhood, and the description of group cooperation in classrooms in Russia; also some of the practices of the so-called Open Classroom.

¹⁹See also Chapter II, Note 25, p. 44.

²⁰I do not wish to suggest that the problems of adolescents are necessarily a developmental phenomenon occurring across cultures. Research would be needed to confirm or disconfirm this.

²¹Cf. Brigades in Botswana, Patrick van Rensberg, Education and Development in an Emerging Country (Uppsala: Scandinavian Institute of African Studies, 1967).

²²Saul, "High Level Manpower for Socialism," in Resnick, Tanzania: Revolution by Education, p. 100.

²³Cf. for example: Robert M. Hutchins, "The Idea of a College," The Center Magazine, Vol. V., No. 3 (May/June 1972), pp. 45-49.

²⁴See for example the argument for higher education to become adult education made by A. H. Halsey in "Socialism and Educational Opportunities," Times Higher Educational Supplement, No. 86, June 8, 1973, p. 2.

²⁵See: Belle Harris, "An Ideological Institute for Tanzania?" in Resnick, Tanzania: Revolution by Education, pp. 153-162.

²⁶A term coined by Warren L Ziegler to describe a system in which an individual gets all the formal education he is ever thought to need before beginning his adult working life.

²⁷Cf. J. R. Gass, "Recurrent Education--The Issues." Report prepared for OECD Recurrent Education Conference, Washington, D. C., 18-21 March 1973. (CERI/RE/73.07) He states: "Let us not forget that, when all is said and done, learning is an objective of the educational system. Access to learning is one of the most dynamic forces in society, and a vital role of the educational system. But the institutionalisation of learning in schools does seem to have got us into a strange dilemma. If there is one pedagogical truth it is that animals learn by practice and humans by theory and practice. Not theory or practice, but theory and practice: since the acquisition of principles and their incorporation into behaviour are part of the same process. Yet most of our educational efforts today are based on theory (in the formal educational system) or practice (elsewhere, later, never)." (p. 6)

See also: James S. Coleman, "How Do the Young Become Adults?" Review of Educational Research, Vol. 42, No. 4 (Fall 1972), pp. 431-440. Coleman calls for a reorganization of the educational system and a "breaking open of the economic institutions of society...and giving them an explicit role in the education of the young....[so that] the young would be integrated into the economic activities of society from a very early age, without stopping their schooling, but merely by stopping the dilution of schooling that has occurred in recent years." (p. 437)

²⁸W. C. Cash, "A Critique of Manpower Planning in Africa," in Economics of Education, ed. by M. Blaug (2nd ed.; London: Penguin Books, 1969), p. 118.

²⁹Nyerere, "Decentralization," pp. 9-10.

³⁰Survey, p. v.

³¹Cash, "A Critique of Manpower Planning in Africa," p. 104. Cf. the education and development relationship discussed in Chapter I, p. 5.

³²Ibid., p. 98.

³³Nyerere, "Decentralization," p. 1.

³⁴Warren L. Ziegler, "Planning As Action: Techniques of Inventive Planning Workshops." (Syracuse: Educational Policy Research Center, December 1972) (mimeo.)

³⁵H. S. Parnes, "Relation of Occupation to Educational Qualifications," in Economics of Education, ed. by M. Blaug (1st ed.; London: Penguin Books, 1969), p. 285. Parnes suggests that this is a difficult but not impossible task. It is not known whether such an analysis has been carried out since his formulation of it in 1964.

³⁶One calls to mind here the industrial disputes that arise from issues of demarcation of work tasks.

³⁷Attributed to the former Norwegian Minister of Education by Kjell Eide, "Recurrent Education: General Policy Options and Objectives." Paper prepared for OECD Recurrent Education Conference, Washington, D. C., 18-21 March 1973. P. 34.

³⁸Marjorie Reeves, Growing Up in a Modern Society (5th ed.; London: University of London Press, 1957), p. 43.

³⁹Claude Levi-Strauss, "The Social and Psychological Aspects of Chieftainship in a Primitive Tribe: The Nambikuara of Northwestern Mato Grosso," in Comparative Political Systems, ed. by Ronald Cohen and John Middleton (New York: Natural History Press, 1967), p. 52.

⁴⁰Ibid., p. 54.

⁴¹Ibid., p. 53.

⁴²Terms favored by OECD/CERI, the Council of Europe and Unesco respectively for similar though not identical concepts.

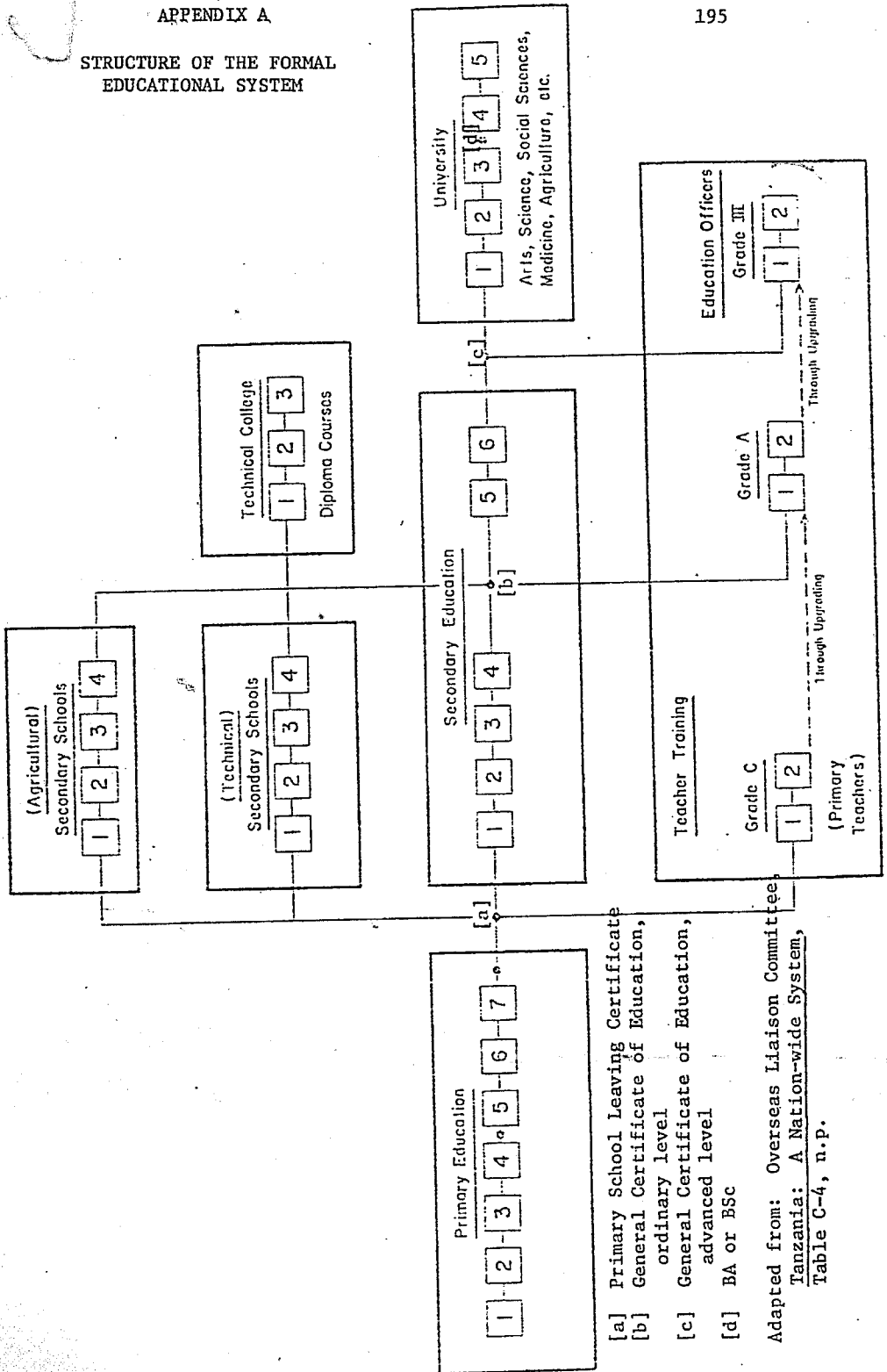
⁴³Eide, "Recurrent Education," p. 42.

⁴⁴Cf. Chapter II, p. 34.

⁴⁵Nyerere, "Leaders Must Not Be Masters," Freedom and Socialism, pp. 135-142.

⁴⁶Cf. Edgar Faure et al., Learning To Be (London: Harrap, 1972): "Examinations should serve essentially as a means of comparing skills acquired under varying conditions by individuals of different origins, a mark not of a conclusion but a starting point, helping each individual to assess the effectiveness of his own study methods." (p. 204)

STRUCTURE OF THE FORMAL EDUCATIONAL SYSTEM



- [a] Primary School Leaving Certificate
- [b] General Certificate of Education, ordinary level
- [c] General Certificate of Education, advanced level
- [d] BA or BSC

Adapted from: Overseas Liaison Committee, Tanzania: A Nation-wide System, Table C-4, n.p.

APPENDIX B

SIZE OF THE FORMAL EDUCATIONAL STRUCTURE

	1966 ¹	1969 ²	1971-72 ³	
BA/BSc				
1st year	517	565	651 ⁴	
GCEa				
6	761			
5	826	1,362	3,034	Total = 31,660
GCEo				-2.4% of age group
4	4,723			pupil-teacher ratio 19.1 ⁵
3			20,096	
2				
1	6,377	7,110	7,530	
PSLC				
7	46,816	59,000		
6			233,000	Total = 848,000
5	60,721	69,000		47% of age group (varies
4				from 70%-20% in
3			437,000	different districts)
2				pupil-teacher ratio 44.1
1	154,512	163,000	178,000	

¹R. C. Honeybone and J. K. Beattie, "Mainland Tanzania," in Examinations, World Yearbook of Education, 1969, ed. by Joseph A. Lauwerys and David G. Scanlon (New York: Harcourt, Brace and World, Inc., 1969), p. 133, Table II.

²Nicholas Bennett, "Tanzania: Planning for Implementation," in Educational Cost Analysis in Action: Case Studies for Planners (Paris: Unesco, IIEP, 1972), Vol. 1, Table 6, p. 25.

³Overseas Liaison Committee, Tanzania: A Nation-wide Learning System (Washington, D. C. [?], November 1971). (mimeo.)

⁴1970-figures. Note that these enrollments do not include those students studying overseas.

⁵Of 1658 secondary school teachers, 682 are expatriates, 976 Tanzanians. Cf. 1967, when only 185 or 15% of 1230 secondary school teachers were Tanzanians.

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