FOUNDATIONS OF EDUCATIONAL SYSTEMS

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Summary

Educational systems vary in size, in style, in purpose, and in vision. They may be formal or informal in nature and increasingly there is an interaction between these two education systems. Nationally, educational systems serve the needs of the state whereas international and transnational systems often serve the needs of business, commerce, or other international groups. Increasingly, there is a tendency to have permeable or diffuse boundaries between state systems and other systems. The purposes of educational systems will focus on the improved condition of the citizenry of a country. This may take many forms, some of which will include the acquisition of formal qualifications and others of which will be related to the humanitarian purposes of education.

The divisions in the educational system will often conform to pre-primary education, primary education, secondary education, tertiary education, and higher education. In addition, the educational system will include a concern for research and lifelong learning.

The purposes of education will relate to matters of social inclusion, social justice, and human progress. They will pay attention to the resource base available to them and to opportunities for technological application.

Regarding sustainable development there are some clear trends in education that relate to the curriculum and its impact on citizenship, as well as to the idea of education to develop "the disciplined mind."

1. Introduction

Educational systems are normally considered to be those structures created by the state to educate the population of that state. It is universally the case that each country has its own educational system and this is normally a function of government. The organization, management, and arrangements within each state differ considerably and these reflect the society that is served by the educational provision.

There are other aspects of "educational systems" that are not necessarily part of state provision but that relate to state education. For example, within many educational systems there are universities, centers for early education, schools, and other institutions of educational activity that are not funded, controlled, or influenced by the state.

Other educational systems can develop that are not directly related to state or government intervention. In each country there are opportunities for education that do not relate to the state and the increase of technology has made available many more opportunities for education across national boundaries.

2. Educational Systems

There is a wide variety of educational systems across the world. These vary in scale, in purposes, and in ways of operating. The scale of educational provision is normally directly related to the size of the country since it is a provision that is intended to support the needs of each country. The ways in which education supports the active

citizenship in each country varies, however. In different countries education has different purposes and these purposes often relate to the view government has about the national system of state education. This can vary from a high degree of central control from government to minimalist central intervention by government and the support of more locally based purposes of education. The ways in which educational systems therefore operate vary considerably in style and in control.

National policies on education are normally related to government policies. There is a varying degree of intervention and control by government in each country and this is subject to continuing change and development. This is particularly true in fields such as sustainable development, which in some countries is highly organized and well developed, whereas in others it is a weakly organized area of educational provision.

In every country in the world there are also private or independent parts of the education system offering opportunities for education that complement the state educational provision. These aspects of education may differ in vision, values, and style from the state provision.

Normally, educational systems are organized by the age of the young people entering the system. It is therefore common to find that an educational system educates children in "primary," "secondary," and "tertiary" educational institutions. While this is not universally the case, it is common to find that this division allows for different organization of institutions to meet the needs of the developing citizens of the country. In some countries this general organization is overlain with aspects of subject expertise or specialization to create centers of excellence.

2.1. National Education Systems

National education systems normally consist of institutions that are funded by government, sitting alongside nongovernmental organizations (NGOs) and institutions. Government institutions are normally the dominant force for education in a country, but they do not necessarily operate in isolation from the NGOs. The national systems are often affected by political and economic conditions in a country and reflect the social circumstances of that country. The extent to which the central government affects individual schools, colleges, and universities varies. There are in many countries areas of delegation of responsibility from central government to local authorities. This pattern of delegation is very common since it recognizes that all education is local and depends on local communities.

In some countries aspects of the education system are delegated to other agencies. For example, in certain countries church authorities or language groups have an important role to play in providing education for and on behalf of the state. The extent to which private education has an important part to play varies considerably. The impact of private education often outweighs its numerical significance.

NGOs also play an important part in the development of policies in many countries. These are often influential in developing policies and in establishing important relationships across national boundaries.

2.2. International and Transnational Structures in Education

There are a number of organizations that have an important role to play in international and transnational developments in education. For example, UNESCO, the European Union, and other international bodies can play a significant part in establishing cross-border flows of students and in establishing broad patterns of priorities for education in different countries. International projects are important, particularly in the third world. Again, the impact of church and other interests can be significant in developing policies that have an international dimension.

There are certain structural features of education that are of international significance. For example, the assessment system of the General Certificate of Education from England is used in a number of countries. The International Baccalaureate is another example of the impact of part of a system across national boundaries. A number of "international schools" are also of some significance. In certain countries there also exists a range of schools of a distinctive kind and these are to be found over many countries (e.g. the Steiner schools).

2.3. Evolving Structures

The pattern of educational systems is not static. There are a number of changes in the structures of educational systems that are to be found in many countries. The role of private companies is of particular significance. It is common to find major multinational companies offering opportunities for people to be educated within one country, and transferred between countries. This is part of a worldwide policy of "investing in people," that is recognizing the importance of international and multinational educational opportunities. The emerging "corporate universities" are of growing significance in educational systems, and these operate outside national educational systems.

There is also a change in role of the state in education, where there is increasing interest in the development of a citizenry with essential "core skills" or "transferable skills" or national prescription of what is to be learned. It is common to find the state determining the basic educational provision in a country and funding that provision alone. The emerging "national curriculum" or curriculum determined by the state is common.

There is also a change in the development of educational provision in which there is recognition of lifelong learning and the contribution of the state to the development of its citizens at all stages of their lives.

2.4. Some Purposes of Educational Systems

The different educational systems in different countries have many different purposes, all related to a broad concept of what it is to be an educated citizen.

The purpose of an educational system is normally to support the country by understanding the heritage of the country, by developing the knowledge base of that country, and by developing active citizenship among the people of that country. In

many countries this has become "knowledge-driven" approach education and is related to the gross national product of the country. In other countries there is a greater degree of concern for supporting the needs of individuals as they develop as citizens of that country, with wider concerns for their education in areas such as the arts, humanities, leisure, technological education, scientific thinking, etc—more a concern for education as a foundation for a liberal education and a humane society.

In certain countries the overt and distinctive contribution of the education system is to ensure that those who are educated within the country are clearly educated citizens of that country with the political and social implications that brings. In certain countries this can be a fairly carefully controlled consideration and the extent to which the government wishes for there to be active participation in matters such as environmental education will vary considerably. It is a matter for judgment whether or not the government of any one country wishes to control or influence the ways in which its citizens think about, behave with, and take an active part in developing the environment. The funding and researching of an educational system is also very important and often determines the extent to which the state wishes to influence the behavior of citizens in relation to environmental considerations. Educational systems are often funded rather independently of other state funding considerations. This can mean that the education system does not directly relate to the policies developed in areas such as agriculture, industry, transport, climate change, and other areas of consideration that will affect the environment.

One of the driving forces for ensuring appropriate learning by young people is the curriculum. The curriculum is in some countries fairly centrally directed and there is little scope for schools or teachers to deviate from the curriculum as prescribed by the state. This prescription is often driven by political, social, or financial considerations and leads to centralist thinking in the processes of learning and teaching. The extent to which these processes relate to environmental considerations varies considerably. In some countries the advice given from government is professionally offered and often accepted by the teaching profession. In other countries there is a greater degree of accountability of teachers for the particular details of learning and teaching that is prescribed by government. Educational systems vary significantly in the extent to which they seek to control the learning of students in schools and universities.

The autonomy of the learners and teachers in education systems is reflected in the degree of control governments will exercise. The extent to which teachers are educated professionally often determines the autonomy they have as practitioners in schools and other institutions. In certain countries where there is a limited focus on teacher education there is a greater degree of "instruction" and the scope for width of learning can be limited. In such countries the focus on literacy and numeracy can be significant and this is often to the detriment of the considerations related to the environment.

Education systems are often particularly concerned with matters related to quality assurance. Governments generally seek to ensure that the funding given to schools is used to the best of the ability of the education system and this normally requires a degree of quality assurance. On occasions this can lead to the appointment of inspectors of schools and other state arrangements, but may also be related to other kinds of quality

assurance arrangements such as professional organizations. Universally there is a concern for quality, and the ways in which this is achieved differs from country to country.

There are number of support structures that relate to education systems. These include the establishment of NGOs, professional bodies, and examination bodies whose responsibility it is to ensure some degree of national standards in education. In certain cases the examining bodies and other professional organizations do not necessarily guarantee or otherwise act as the custodians of quality, but rather are the organizations that in a sense "measure quality."

2.5. Scope of Education Systems

Normally, education systems are, or seek to be, comprehensive in nature in that they cover the major needs of all the citizens of a country. There is not, however, an opportunity in every country for children to attend schools or other educational institutions. The worldwide trend towards universal education is continuing but there are genuine difficulties in areas that lack resources, traditions, and the perceived need for education of all young people. This is not to suggest that all education needs to take place in specific institutional settings, but education systems generally promote this view of education as a social service.

The curriculum in different countries varies in the focus it has on environmental and ecological issues. In many countries it is thought that the development of the citizens of a country will include a concern for environmental issues and attention to aspects of sustainable development. This is not at the heart of governments' policies on education, but is an area of consideration that is thought to play an important role in the education of young people. There are different ways in which citizens are educated, but it is widely accepted that the educated active citizen is a person who is sensitive to the needs of environmental considerations and to the principles of sustainable development. In certain countries the requirement on the education of teachers and the education of students in schools puts sustainable development and environmental education close to the heart of the curriculum. This has largely been a development since the Earth Summit in Rio De Janeiro in 1992.

The purpose of education for sustainable development is to help young people acquire the skills, knowledge, and understanding to help them take better informed decisions, whether corporately, or on behalf of others, or individually in their own lives. It is an attempt to ensure that they are able to act in ways that are consistent with a sustainable future for the world. Part of this education is to have sufficient knowledge and understanding to be able to appreciate the importance of biological, ecological, social, and economic principles that act in combination to produce a society and environment in harmony with each other. It is also important that education helps the young people to learn how to learn about the developing environment and ways in which it can be improved in the interests of society without it becoming unsustainable. Importantly, education should also ensure that young people are able to operate within the environment so that they can improve it for future generations. Of particular importance is the education of young people as citizens who know how to be part of the

environment and not to treat it as if it were a resource capable of being thoughtfully used or abused. Education should also support young people in their ability to develop the environment in ways that are going to improve it for future generations. Young people have to act in ways that are sustainable and that will operate across the generations. This is an important time aspect of environmental management and education for sustainable development. It is time related; it is related to different generations; it is dynamic and everchanging in form, style, and pace.

3. Sectors of Education

Education systems are generally divided into various sectors, including pre-school education; primary education; secondary education; further and vocational education; higher education; adult and continuing education; and professional education.

3.1. Pre-Primary and Kindergarten Education

This stage of education is not universally available in every country. Where it does exist it sometimes lies outside the formal state education system and is supported by independent agencies. The period it covers also varies from country to country. Generally, it covers the ages of three to six, although in some countries it begins at four years and in other countries at the age of two years. It also extends in some countries to the age of seven years, but in others only to the age of five years. It therefore covers an age group that can be anything from two to seven years of age.

The nature of pre-school education and its significance in society varies considerably. There are education systems in which it is given high priority and in which there is a considerable investment of resources, believing that the development of the attitudes, skills, and ideas of young children and their parents offer a very important foundation for future development in education and in life generally. In other countries this is very much a "child-minding" activity that does not seek to develop specific skills of young people, but is an opportunity for socializing and for taking care of the social and personal needs of the child.

There are certain main threads of thinking in pre-school and primary education, including some specialist approaches such as that currently pertaining in Regio Emelia in Italy. There are other charismatic figures who have done a great deal to develop education and their influence continues at the present time; for example, the schools developed through the inspiration of Maria Montessori, Friedrich Froebel, Rudolph Steiner, etc.

Primary school education often forms the basis of an education system and is the opportunity for the state to develop core skills and ideas in educating young people. The age span of this also varies, sometime spanning the time from five years to 12 years, but in many countries not beginning until seven years of age and being completed at the age of 14 years. In many countries primary school education forms the basic education system and infrastructure. Government influence in this area of education is often considerable since it is the provision that develops the citizens of a country. The curriculum that is developed in the primary school normally covers language and

mathematics as basic subjects, but also includes environmental education, expressive arts, and common in some countries are religious and moral education and personal and social education. The extent to which the curriculum covers all aspects of the needs of the child varies from country to country. The curriculum balance is normally a reflection of the priorities the country attributes to certain aspects of the curriculum.

The primary school curriculum often deals not only with subject content but is the opportunity for schools to foster enterprise and creativity, and is related to the social mission of the country to be concerned with social inclusion in all its aspects. Primary education offers the opportunity to develop people who are and will become citizens, who serve each other by ethically responsible action, and with a sense of purpose in life. The primary school curriculum is not simply the expression of knowledge and understanding about certain subjects, but it is the ways in which young people become knowledgeable, concerned with their values, and concerned with serving others through providing information and raising awareness about their own particular role in the world. The purpose of education is to equip them with the skills and the basic understanding to make them more suited for life. Primary education forms the basis of this and is primarily concerned with establishing values, ideals, and relationships that are further developed in the educational system.

3.2. Secondary Education

Secondary education is the opportunity for young people to become more fully aware of the disciplines of education. Normally, secondary schools are concerned with the development of "subjects" that are essentially the disciplines of knowledge. This varies from country to country and the particular balance of the curriculum is a reflection of what society sees as being important for "the educated person." Normally this will include the centrality of language and mathematics, as well as an exposure to the principles of scientific thinking, technological thinking, environmental sensitivity, the heritage of the student, the understanding of the society in which the student is living, the aesthetic and paratactic heritage of the society, and the moral and ethical values prevalent in society. The ways in which these aspects of thought and action are put together within the curriculum cannot readily be prescribed in global terms, but the local interpretation of these indicates the nature of the balance of the curriculum for the student.

It is normal for students to remain at secondary school until the age of 18 years, although in many countries the compulsory period of education may terminate at 15 or 16 years of age. In some countries this is as low as 14 or even 12 years of age.

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Bibliography

Eisner E. (1994). *Ethos and Education*, 12 pp. Edinburgh: Scottish Consultative Council on the Curriculum. [This discusses the creation of an ethos in schools that will allow education to do justice to the capabilities of students and the lives they have the opportunity to lead.]

Hicks D., ed. (1994). *Preparing for the Future: Notes and Queries for Concerned Educators*, 160 pp. London: Adamantine Press. [Discusses the type of education needed for the twenty-first century, including the task of educating for a sustainable future.]

Hicks D. and Holden C. (1995). Vision of the Future: Why We Need to Teach for Tomorrow, 139 pp. Stoke-on-Trent: Trentham. [This book contends that images of the future play a central role in social and cultural change and considers the implications of this for educators and policy makers.]

Huckle J. and Sterling S., eds. (1996). Education for sustainability, 236 pp. London: Earthscan. [A manual of ideas and strategies for transforming education into a force to create a sustainable future.]

Kelly A.V. (1999). *The Curriculum: Theory and Practice*, 244 pp. 4th ed. London: Paul Chapman. [This book is a comprehensive guide to understanding the curriculum—what it is, why it matters, how it has come to be, and the various conceptions of knowledge and learning on which it is based.]

Lynch J. (1992). *Education for Citizenship in a Multicultural Society*, 122 pp. London/New York: Cassell. [This book discusses the educational implications of cultural diversity and demonstrates that preparation for citizenship should be an essential part of school curriculum.]

Moon B. and Murphy P., eds. (1999). *Curriculum in Context*, 280 pp. London: Paul Chapman. [Introduces readers to the historical, political, social, and cultural influences that contribute to curriculum and assessment development in any particular context.]

Oxfam (1997). A Curriculum for Global Citizenship: Oxfam's Development Education Programme, 28 pp. Oxford: Oxfam. [Oxfam's view is that an education based on principles of equity and social justice with the development of the global citizen is the key to a sustainable future. This book discusses the curriculum needed to achieve this.]

Palmer J. (1998). Environmental Education in the 21st Century: Theory, Practice, Progress and Promise, 282 pp. London/New York: Routledge. [This discusses why environmental education, despite the urgency and importance of learning to live in sustainable ways, does not hold a priority position in formal schooling around the world.]

Palmer J. and Neal P. (1994). The handbook of environmental education, 267 pp. London/New York: Routledge. [A handbook on policy and strategy for educators who want to foster informed care for the environment.]

Steiner M., ed. (1996). Developing the Global Teacher: Theory and Practice in Initial Teacher Education, 174 pp. Stoke-on-Trent: Trentham. [This book examines how teachers can incorporate a global perspective and commitment to sustainable development into the curriculum, and teach in ways that encourage cooperation, critical thinking and democratic values and practices.]

Turner J.D., ed. (1996). *The State and the School: An International Perspective*, 135 pp. London/Washington, D.C.: Falmer. [This book discusses the extent to which a nation's government has the right to determine the nature of the educational system, and what are the limits on that right.]

Williamson B. (1998). Lifeworlds and Learning: Essays in the Theory, Philosophy and Practice of Lifelong Learning, 220 pp. Leicester, U.K.: National institute of Adult Continuing Education (NIACE). [Discusses the view that lifelong learning is at the heart of current debates about the learning society, sustainable international development and world peace.]

Biographical Sketch

Bartholomew J. McGettrick, OBE, KCHS, Dhlitt, FRSA, FRSAMD, B.Sc., M.Ed., Dip.Ed., PGCE, is professor of education at University of Glasgow, and dean, Faculty of Education, University of Glasgow. In 1985 Professor McGettrick was appointed principal of St. Andrew's College, the National Catholic College for the Education of Teachers. He was formerly assistant principal (1975) and vice-principal (1980) of Notre Dame College of Education. On April 1, 1999 he was appointed dean of the Faculty of Education of the University of Glasgow.

He holds a number of prominent positions in national and international committees such as president of ACISE; chairman of the Schools Commission for The Holy Land; vice chairman of the Scottish Consultative Council on the Curriculum; chairman of the Catholic Union, Scotland; chairman of Governors of Independent Schools, and chairman of Scottish Council on Independent Schools in Scotland; chairman of The Scottish Centre for Children with Motor Impairments. He is also involved in British broadcasting and education; and educational consultant to many organizations and institutions. Professor McGettrick chaired the Secretary of State's Committee on Education for Sustainable Development. He has been involved in various research projects, and in curriculum development in Scottish education, and has also acted as external examiner on a number of occasions. Professor McGettrick has contributed to international conferences, and worked in different international settings with research, consultancies and lecturing commitments.

His main areas of interest are sustainable development and education; values in education; educational management and administration; assessment. He also holds responsibilities in wider areas of public life, e.g. advising government and Church authorities on political and social issues.