

Education, growth, development: A long run perspective

Andrew R Donaldson

RESEP Workshop on Fiscal Pressures and South African Education Budgets

10 April 2024

Outline

- Education and social progress
 - Economic and sociological perspectives
- Growth theory
 - Technological change, productivity, learning
- Education and development
 - Primacy of basic education
 - Complementarity with economic structure & sectoral trends
 - Education and inequality
 - Understanding education outcomes
- Education, employment and inequality
- South Africa's education transition
 - The *National Education Policy Investigation*
 - Enrolment and outcomes
 - Trends in government education expenditure
- Concluding remarks: rethinking system-wide reforms

Education and social progress

- Historical perspectives:
 - Education in antiquity as about authority and the law...
 - Plato's *Republic* ruled by philosopher-kings
 - And about understanding *de rerum natura*
 - Lucretius & the Epicureans, rediscovery in “renaissance” times – long time lags between knowledge and application
 - State hostility to dissident ideas...
 - Social order – language, discipline, merit, class
 - Immanuel Kant, Weber
 - Social advancement
 - 18th/19th century English and European reformers
 - John Dewey's “pragmatism”
 - The economic turn: education as investment in “productivity”
 - Too reductionist? Schooling is also about social control
 - It's partly about social stratification, roles & signaling

Growth theory

- Growth economics & national accounts are cautious about the education as “investment”
 - Technological progress as “exogenous”
 - No clear basis for separating cultural, social and economic considerations
 - Kenneth Arrow on “learning by doing” provides a more compelling explanation of productivity change than human capital theory
- “Returns” to education involve deeply entangled feedback loops & hysteresis effects
 - Without investment and growth, educational returns may disappoint
 - Social and political conditions shape the opportunities for work and productivity
 - Wealth, power and social structure influence outcomes
 - Advancements in knowledge and technology are unpredictable
- Progress in education is as much an outcome as a source of economic growth and social change

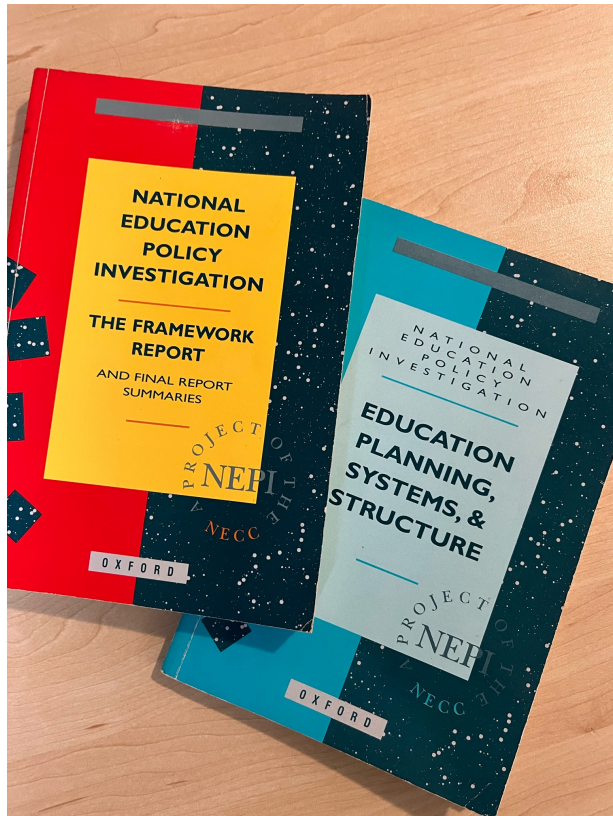
Education and development

- Primacy of basic education
 - Anderson & Bowman, Colclough, Wheeler, Sen ... still central to WB analysis and advice
 - Knight & Sabot (1990) – *The East African Natural Experiment: Implications for education? Social institutions?*
- Beyond basic capabilities, role of education is complex...
 - Economic structure, sectoral trends & distributional outcomes over the long term depend on complementary developments in education & training
 - Mary Jean Bowman (1980) – adaptability, ingenuity, efficiency in handling information as keys to technical progress
- Evidence on school quality, effectiveness, resource inputs, management ...
 - *“school quality improvements must start early in the educational process, and be accompanied by attention to out-of-school problems...”* (Schiefelbein et al 1983)
- Schooling complements home and community environment and activities
 - Income security, housing, nutrition programmes may be as important as school inputs
- A vocational bias in post-basic schooling may not yield constructive outcomes...
 - *“...some of the kinds of competencies that are most critical for development can rarely if ever be learned in schools, and ... the costs of effective in-school teaching and learning of some others are prohibitively high...”* (Mary Jean Bowman 1965)
- Financing arrangements are central to the fairness and distributional outcomes of differentiated education opportunities
 - Fully state-funded higher education unlikely to be equitable or efficient

Education, employment & inequality

- The solution to youth unemployment is not more time in schools...
 - Improved basic education is part of the answer
 - “Congestion” in schools and colleges is part of the problem
- South Africa’s post de Lange “vocationally oriented” secondary education reminiscent of Gramsci’s description of Mussolini’s 1930s educational reforms –
 - *“...not merely to perpetuate social differences but to crystalise them in Chinese complexities...”*
- Expansion of independent after-school and in-service training after the 1980 TVET reforms more promising –
 - But it was never sufficiently integrated with formal college programmes
 - And the sector-based skills funding system could not solve the local/regional business-training coordination problem
- Rapid increases in tertiary education enrolment and funding without attention to quality or occupational priorities are self-defeating
- Intermediary “school leaver support” and youth employment programmes in recent years appear to work in “bridging” the gap between school and work
 - Perhaps they fill substantive “knowledge” and discipline gaps
 - They provide friction-reducing “signals” to both workseekers and employers
 - Scalability through social media assists in reducing transaction costs
- Reducing inequality and broadening labour market opportunities are largely about improving prospects for those who *don’t* complete secondary schooling or further education

South Africa's education transition



- The *National Education Policy Investigation*
 - Conducted 1990-1992, published 1993
 - 12 research reports and a consolidated Framework Report
 - Under National Education Coordinating Committee chaired by Jakes Gerwel
 - Aimed to support policy & planning through analysis and support for public debate
- *Planning, Systems and Structure* report
 - From divided to integrated system
 - Designed to support economic development & redistribution
 - Including focus on financing
- Key policy and planning themes:
 - Universal basic education as a first priority
 - Post-basic education and training: diversity & flexibility along with assurance of standards & qualifications
 - Financing & management reforms to focus on equity of access and efficiency, with mix of public and private involvement linked to distribution of benefits
 - Reorientation of planning & policy to broaden decision-making and promote accountable participation
 - Education and training under a single Ministry, while accommodating decentralized ownership and supervision of schools, employment of teachers and implementation of education system change...
 - *“This implies a new orientation in education departments: from inspecting, prescribing, restricting, and controlling to research and design, promoting change, encouraging development and driving education progress.*

Education enrolment in 1990

Enrolment (000s)	African	Coloured	Indian	White	Total
Pre-primary	103	24	15	53	195
<i>% of age 6 cohort</i>	<i>13%</i>	<i>32%</i>	<i>71%</i>	<i>67%</i>	<i>20%</i>
Grade 1	1,220	110	22	85	1,437
<i>% of age 6 cohort</i>	<i>150%</i>	<i>147%</i>	<i>105%</i>	<i>107%</i>	<i>145%</i>
Primary	5,640	612	141	540	6,933
<i>% of 6-12 pop</i>	<i>111%</i>	<i>122%</i>	<i>100%</i>	<i>101%</i>	<i>110%</i>
Secondary	2,027	229	92	383	2,731
<i>% of 13-17 pop</i>	<i>66%</i>	<i>63%</i>	<i>90%</i>	<i>91%</i>	<i>69%</i>
Technical college	13	5	6	49	73
Teacher training	49	8	1	10	67
Technikon	18	7	6	54	84
University	111	18	19	154	302

Education attainment in 1989/90

	African	Coloured	Indian	White	Total
Senior certificate					
Candidates	255,498	22,315	14,542	68,097	360,452
Passes	93,862	17,721	134,815	65,255	190,653
Matric exemption	21,025	4,487	6,614	27,986	60,112
<i>Pass rate</i>	37%	79%	95%	96%	53%
<i>Exemption rate</i>	8%	20%	46%	41%	17%
Technikon diplomas	624	646	646	8,321	10,227
University degr/dipl	9,595	4,185	2,481	29,167	45,428
<i>% distribution</i>	21%	9%	6%	64%	100%

Government expenditure on education 1990 & 2023

	1990	%	2023	%	Real pa increase ³
Current expenditure ¹					
Pre-primary	130	0.7%	9,600	2.2%	10.1%
Basic education	13,110	74.5%	290,000	67.2%	4.5%
TVET & Community ²	730	4.1%	14,800	3.4%	4.1%
University & Teacher Training	2,500	14.2%	102,100	23.7%	7.3%
Capital expenditure	1,130	6.4%	15,000	3.5%	2.2%
Total	17,600	100%	431,500	100%	4.9%
<i>% of Govt expenditure</i>	23.6%		20%		
<i>% of GDP</i>	7.1%		6.1%		

1. Administration, auxiliary and assoc services distributed between basic, TVET and University current expenditure for 1990 estimates.
2. Excluding skills development expenditure in 2023.
3. Deflated by the increase in CPI.

Concluding remarks: rethinking system- wide reform?

- Public policy is not just about government services –
 - Public and private/independent provision
 - State support, cost recovery and other financing sources
 - Analysis, performance enhancement, curriculum deepening
- While the quality of basic education is key to more inclusive development
 - Excellence in higher education and standards of further education are also vital – Bowman's "development men and women..."
- Progress in housing and living conditions also contribute to education development
- Time to abolish SETAs, redirect resources to further education?
 - Business will finance the training it needs
 - Local and regional collaboration is more important than sectoral organization in most industries
- Education, research and knowledge are global public goods
- Long term partnerships with education foundations and NGOs depend on clarity of roles and responsibilities
- The PES basic education employment programme is a foundation on which to build
 - Not just in classrooms but in the wider school environment and activities
- Education as a partnership between state and households...

Thank you

References

- Kenneth Arrow, *Learning by doing*. **Review of Economic Studies**, 1962.
- Mary Jean Bowman, *From Guilds to Infant Training Industries*. In CA Anderson and MJ Bowman (eds), **Education and Economic Development**. Frank Cass, 1965.
- Mary Jean Bowman, **Education and Economic Growth: an overview**. World Bank Staff Working Papers No. 402, 1980.
- **Education Planning, Systems and Structure**. Report of the NEPI Education Planning, Systems and Structure Research Group. Cape Town: Oxford Univ. Press/NECC, 1993.
- Andrew R Donaldson, *Reconstructing Education: reflections on post-apartheid planning, systems and structure*. **Implementing Education Policies: the South African Experience** (eds. Y Sayed and J Jansen) Cape Town: UCT Press 2001.
- Andrew R Donaldson, *Education, Growth and the “New” Public Finance*. In Graeme Bloch, Brahm Fleisch, Linda Chisholm and Mahlubi Mabizela (eds.), **Investment Choices for South African Education**, Wits University Press 2008.
- John B Knight and Richard H Sabot, **Education, Productivity and Inequality: The East African Natural Experiment**. New York, Oxford University Press, for the World Bank, 1990.