

Australian Government Department of Foreign Affairs and Trade

(MIIIIIIII)

Education Learning and Development Module

Diplomatic Academy.

H.T.

EDUCATION FINANCING

Foundation Level 2018



CONTENTS

Acroi	nyms	3
1	Introduction	4
2	Measuring financial commitment to education	4
3	How can we gauge the efficiency of public expenditure for education?	9
4	Funding patterns that promote equity of access1	13
5	Test your knowledge	16
Refer	rences and links2	20



ACRONYMS

- DFAT Department of Foreign Affairs and Trade
- GDP Gross Domestic Product
- GPE The Global Partnership for Education
- OECD The Organisation for Economic Cooperation and Development
- PER public expenditure review
- PETS public expenditure tracking survey
- PFM public financial management
- SABER Systems Approach for Better Education Results
- UNESCO United Nations Educational, Scientific and Cultural Organisation



1 INTRODUCTION

The purpose of this module is to provide introductory information about education financing, including financial commitment to education, efficiency of expenditure, and strategies to promote equity and inclusion. It provides a foundation to engage in this topic and apply advice from staff with operational or expert levels of knowledge in education. On successful completion of this module you will gain the ability to apply practical knowledge of education financing in order to make valuable contributions to the field.

2 MEASURING FINANCIAL COMMITMENT TO EDUCATION

Developing countries spend large amounts of their public budgets on education, yet are constantly challenged to deliver better education from pre-school through to university. A scarcity of public resources, a complex educational agenda and competing demands from other sectors make for tough choices.

The Australian aid program and other development partners often deliver development assistance through partner government systems. The Department of Foreign Affairs and Trade (DFAT) Framework for Engaging on Public Financial Management sets out good practice for engaging on Public Finance Management (PFM) in international development assistance, including using partner government systems. Please refer to this framework as you continue reading.

Source: DFAT 2017.

Governments' financial commitments towards education represent important drivers of social and economic development. The goal of any government should be the universal provision of high quality, publicly funded education. As will be discussed, there are other important sources of education financing, including private, household, official development assistance, foreign direct investments and civil society contributions.

Recurrent and non-recurrent expenditures: what is the difference?

Education expenditures are typically organised into two categories.

Recurrent expenditure

Recurrent expenditure on goods and services is expenditure which does not result in the creation or acquisition of fixed assets (new or second-hand). It consists mainly of expenditure on wages, salaries and supplements, purchases of goods and services, and consumption of fixed capital (depreciation). Recurrent expenditure in the form of salaries, typically represents the largest proportion of education budgets.



Non-recurrent expenditure

Non-recurrent expenditure does not 'recur' like salaries, which allows for discretion from year to year. Types of non-recurrent expenditure include capital spending on physical assets (such as a school building), and improvements or the rehabilitation of physical assets. Importantly, non-recurrent resources are used to finance key sector elements such as curriculum reforms, textbook design and procurement, and all other 'discretionary' expenditures outside of recurrent obligations. With the majority of education funding associated with recurrent expenditure, there can be extreme pressure on non-recurrent resources, requiring policy prioritisation and trade-offs. Another problem is that some types of non-recurrent expenditure might have implications for recurrent expenditures – e.g. building additional schools will result in a need for additional teachers, teaching supplies, and generate higher depreciation of capital. These are not always factored into budget forecasts, where capital and recurrent budgets are prepared separately and where there is no medium term expenditure framework in which the implications of capital expenditures for future financial years are considered.

All education systems need a certain level of funding to:

- attract, train and retain competent and motivated teachers
- build and maintain schools
- provide adequate teaching and learning materials for classrooms
- provide system management (including curriculum development, school monitoring, learning assessment and innovation strategies).

The following table presents the key indicators for measuring a government's financial commitment to education.

Measure	Indicators
	Public education expenditure as percentage of Gross Domestic Product (GDP)
Total education expenditure	Public education expenditure as percentage of total public expenditure
	Donor share of total education expenditure
Average public unit cost	Average public expenditure per student as percentage of GDP per capita
	Average public expenditure per student

Table 1 – Measuring financial commitment to education

Share of public expenditure

A key indicator of financial commitment towards education is assessed through public expenditure on education as a proportion of the total public expenditure. This indicator measures the commitment a government gives to education relative to its other obligations. The Global Partnership for Education (GPE) suggests an indicative 15 to 20 per cent share of the national budget should be invested in education (GPE developing country



partners increased their average spend on education from 14.9 per cent to 16.9 per cent of national budget by 2016).

Source: GPE 2018, GPE's engagement on domestic financing for education.

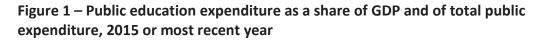
Share of Gross Domestic Product

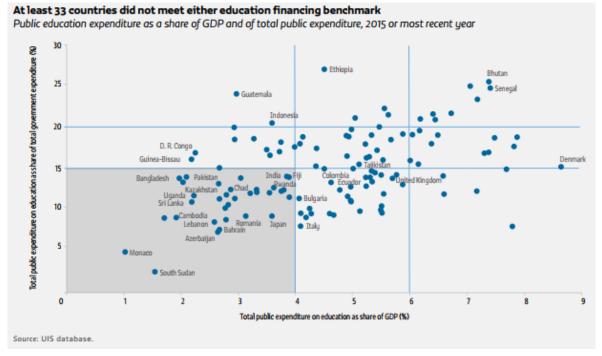
Public education expenditure as a percentage of Gross Domestic Product (GDP), measures government commitment to education relative to its national wealth. By mapping education expenditure to GDP, problems associated with comparisons to other countries, which may have different sized public sectors, are avoided. This also allows comparisons of expenditure trends in a country which has altered the size of its public sector across time. This indicator is used in tandem with education share of public expenditure.

The Education 2030 Framework for Action suggests that public education expenditure should be between four and six per cent of GDP.

Source: UNESCO 2016.

Smaller countries with dispersed or isolated populations (such as Pacific countries) will tend to have a higher percentage allocation because of the high costs associated with providing services to rural and remote locations. Figure 1 shows at least 33 countries did not meet the education financing benchmarks.





Source: UNESCO 2017, Global Education Monitoring Report 2017/18: Accountability in education: Meeting our commitments, p.265.



Donor share of total education expenditure

Donor share of total education expenditure (public and private sources) shows the extent of a government's reliance on donors for the financing of its education system. Donor funding has tended to target non-recurrent expenditure (e.g. in support of sector reforms), and to do so outside of partner government systems. Donor funding can also be channeled through partner government systems which may support recurrent or non-recurrent budget lines, or a mix of both, depending on partnership priorities.

Average public unit costs

Average public unit costs for education show the real changes in funding for education by factoring in the changing size of enrolments over time. In developing countries, big school population changes can occur very quickly (e.g. if school fees are abolished, enrolments can increase substantially), which in turn can greatly reduce the amount of investment per student.

Increased education expenditure?

Equally important factors for analysis are the actual per student amount and trends over time. Time-series analysis and regional comparisons are valuable for all the above indicators. Increased education expenditure does not automatically translate to better learning outcomes for children, and monitoring levels of education expenditure does not tell us anything about how effectively that money is being used. However, monitoring trends, comparing levels with other countries, and matching these expenditures with changing expectations of government can give us a valuable perspective on what is likely to happen in terms of educational development.

National and international data analysis

All the aforementioned indicators (except for donor share of total education expenditure) are used extensively by developed and developing countries. These indicators can be found in the statistical tables of UNESCO's annual Global Education Monitoring Report. Another useful source for international education and training finance-related data is held by the OECD.Stat.

There is, however, still a lack of comparable finance-related data across all countries. The UNESCO Institute for Statistics (UIS) has the mandate to collate education finance-related data, and the most recent updates can be found via its UIS Education Finance website.

Sources: UNESCO 2019, OECD n.d., UIS 2019.

See the following examples of education finance indicators, and source of data, and then complete the activity that follows.

	Government expenditure on education as a percentage of GDP	Expenditure on education as a percentage of total government expenditure	Government expenditure on primary education as per pupil as percentage of GDP per capita	Government expenditure on secondary education per student as percentage of GDP per capita
World	4.7	13.7	15.4	20.4
Countries with low income	3.7	13.0	10.3	16.6
Countries with middle income	4.6	12.2	13.6	16.6
Countries with high income	5.1	15.2	19.1	22.7

Table 2 – Financial commitment to education: public spending (2015)

Source: Extracted from UNESCO 2017, Global Education Monitoring Report 2017/18: Accountability in education: Meeting our commitments, Table 15, p.398.

An activity for you

The data provided in the example above can be viewed in UNESCO's Global Education Monitoring Report which provides useful information. You can also access UNESCO's data by country at this Education Finance website (see the 'Explore the Data' section for information).



As an exercise, please access these information sources and answer the following questions for your country program or a developing country known to you.

- 1. Does the government have a policy target or political commitment related to any of the indicators set out in Table 15, p. 398 of the 2017/18 Global Education Monitoring Report? Is it meeting this commitment?
- Do you know the country's annual inflation rate? Is growth in education expenditure growing at a faster rate than inflation? (Hint: access World Bank factsheets and country data for your country at their Countries and Economies website)
- 3. How does the national average vary from neighbouring countries or the regional average?
- 4. Have recent studies (for example, public expenditure review (PER), public expenditure tracking survey (PETS), or other government documents or donor documents) made any findings or recommendations related to any of these indicators? If yes, what are they?

(Hint: National Education or Finance ministries may publish recent studies and may be found online. Likewise organisations such as the World Bank publish recent studies at their Public Expenditure Review website.)

Sources: UNESCO 2017, World Bank n.d.



3 HOW CAN WE GAUGE THE EFFICIENCY OF PUBLIC EXPENDITURE FOR EDUCATION?

Public expenditure for education

The amount and proportion of public and private spending for education alone is an inadequate indicator of school system performance. The effectiveness of an education system is affected in important ways by the efficiency with which a government utilises its resources. Under-utilisation of available budgets is also a critical efficiency issue in developing countries, with some only being able to disburse 50 per cent of the allocated budget vote. The efficiency analysis of an education system is always complex and involves at least four key measures that are presented in the following table.

Table 3 – Measuring efficiency of an education system

Measure	Indicators
	Drop-out rate
Internal efficiency of the education system	Repetition rate
	Cycle completion cost *
Administrative burden of education system management	School level costs as percentage of total costs
	Average public expenditure per student by sub- sector
Resource prioritization for education sub- sectors	Total public expenditure by sub-sector
	Private expenditure per student by sub-sector
Expenditure for resources/materials other than salaries	Non-salary items as percentage of public recurrent expenditure

* Cycle completion cost is the average cost of producing a graduate for each level of schooling. The cost is higher than a simple average unit cost because it takes account of the number of dropouts and repeaters.

Internal efficiency of the education system

The internal efficiency of a school system is the rate at which a system enrols and teaches its student body to complete each level of schooling. Efficiency indicators include drop-out rates, repetition rates, and cycle completion rates (average length of time needed to complete a level of schooling, such as primary education).

A good general resource that covers issues including efficiency and effectiveness of school finance has been produced by the World Bank and can be found at the SABER School Finance website.

Source: World Bank 2012.



An activity for you

Think about your country program or a developing country and answer the following questions:

- 1. Is the trend over time for drop-out and repetition rates showing an improvement, a decline, or is it static?
- 2. Have there been any studies into the reasons for students dropping-out?
- 3. Is drop-out focused in particular geographic areas or populations?
- 4. Is there a difference in drop-out between girls and boys? Which has the lowest drop-out and repetition rate?
- 5. Are there any proposed strategies for dealing with drop-out and repetition rates, and have these been costed?

Administrative burden of education system management

Administrative burden of education system management refers to the proportion of the budget allocated for system management. This includes payments for teacher supervisors, conducting examinations, curriculum development and professional development of teachers. If these expenditures are too high they may represent an inefficient system. However, if they are too low they impede the ability of the system to provide adequate support and guidance to schools.

Efficient administrative systems are especially important for small education systems and those with a high proportion of remote or isolated schools. The size of these 'out of school' expenditures will be greater in smaller systems. This is because the basic overhead costs of running a system are distributed across a smaller number of schools. As a general guide, for larger scale systems, out of school expenses should be in the zone of five to 10 per cent of total expenses.

An activity for you

Think about your country program or a developing country and answer the following questions.



- Is it possible to calculate from the education budget what proportion of education expenditure is for 'out of school' purposes? For example, payments to teacher supervisors, conducting examinations, curriculum development and professional development of teachers.
- 2. What elements of education system management could be adjusted to reduce its overall cost?
- 3. What expenditures or investments in system management could be introduced to yield improvement in educational quality or access to education?



Resourcing priorities for education sub-sectors

Assessing expenditures by sub sectors shows how the funding 'pie' is divided between different levels of education. Historical trends in overall expenditure combined with unit cost analyses can point to a mismatch between government objectives as set out in its Education Sector Plan and actual resource allocations.

Private household expenditures

Private household expenditures for education should be tracked to see how they intersect with the outlay of public money. These household expenditures are often very significant, meaning they can help improve the quality of schooling. However, this expenditure also imposes barriers to entry and sustained participation, especially for poor families. Equity and access objectives mean that private expenditures should be lowest for the basic level of education. This means that families should be required to pay little or no money for education at the pre-primary and primary levels, i.e. low fees or none, and no other 'hidden' costs, such as for learning materials, uniforms, taking exams, and equipment. As the incidence of private expenditures increases towards higher education levels, it is important to see if there are targeted financing mechanisms to support poorer sections of society.

Definition of unit cost

A unit cost is the expenditure incurred in producing one unit of a good or service. It is usually computed as an average cost. In education, the unit cost usually refers to the average annual cost per enrolled student.

The appropriate levels of expenditure by sub-sector is a function of the number of students enrolled across sub-sectors. It is important to look at the number of student beneficiaries between sectors to judge if expenditure is disproportionate. Generally, per student spending increases with the levels of education. For example, in Indonesia, government expenditure on primary education per pupil was equivalent to USD \$1,514, compared to USD \$3,764 on tertiary education per pupil (2015).

Source: OECD 2019, Education at a Glance, Education Finance Indicators.



An activity for you

Think about your country program or a developing country and answer the following questions.

- Is it possible to calculate from the education budget the proportion of education expenditure that is allocated between the education sectors (pre-school, primary, secondary and post-secondary)? Have there been studies that have made these calculations?
- 2. How many students can be provided primary education for the cost of one in postsecondary education?
- 3. Are there any institutional and political factors that direct greater funding towards one education sub-sector over another?

Expenditure for resources/materials other than salaries

Salary and non-salary shares of expenditure

Salary and non-salary shares of expenditure reveal the amount of funds available within a system to spend on equipment, materials and facilities that are important to education quality. While the quality of teachers is central to the quality of learning in a school, other resources – especially learning materials, student assessment tools and teaching resources - are vital to enriching the teaching and learning process. As a general guide, large and efficient systems may have salaries at around 70 per cent of total recurrent expenditures. This enables the balance of resources to be devoted to enriching the teaching and learning process. The reality in developing countries is frequently different, with up to 90 per cent of education budgets devoted to salaries. This leaves very little space from domestic resources to support the non-salary components of a well-functioning education system. For this reason, development partner and system level investments tend to target nonrecurrent priorities, such as curriculum reform, teacher development, data systems and assessment. As an example, in Zimbabwe compensation to primary teaching staff as a percentage of current expenditure on primary education is nearly 99 per cent. This compares to a nominal 0.2 per cent of expenditure on primary level textbooks and teaching materials as a percentage of current expenditure on primary education.

Source: UNESCO 2017, Global Education Monitoring Report 2017/18: Accountability in education, meeting our commitments, p.403.



An activity for you

Think about your country program or a developing country and answer the following questions:

- Is it possible to calculate from the education budget the proportion of education expenditure that is for salary related expenses?
- 2. Have there been any studies that have made these calculations? If so, what did those studies reveal?
- 3. Is the average teacher salary close to the average public servant salary? Does it differ for women and men?
- 4. What is the average pupil: teacher ratio for the different levels of schooling? Does it show significant differences across regions? Across levels?

4 FUNDING PATTERNS THAT PROMOTE EQUITY OF ACCESS

Equity in education spending refers to funding patterns promoting equity of access to learning opportunities for all children. It can be considered the first step towards more equitable learning outcomes. To be equitable, education systems need to allocate resources to address poverty, gender disparities, social barriers and the integration of students with disabilities.

Equity analysis needs to consider public and non-government sectors of schooling. This is especially important in countries with a significant share of children enrolled in non-government schools (or where the poor are overly represented in non-government schools). In Pakistan, for example, a significant proportion of students are enrolled in non-government and/or private schools. Alternately, in Indonesia, while enrolments in non-government schools under the jurisdiction of the Ministry of Religious Affairs are proportionately small, they absorb large numbers of the very poor. In both cases this indicates the need for strong regulatory oversight, to ensure consistent educational standards across all parts of the system.

The following table presents the key indicators for measuring funding patterns promoting equity of access to learning opportunities for all children.



Measure	Indicators
Adequacy of public funds to provide education for schools in poor and remote areas	Average public expenditure per student by sub-national setting. For example: region, district, island Average education expenditure per student in ethnic or religious minority localities Non-salary items as percentage of public recurrent expenditure
Targeted expenditure for students with disability	Volume of targeted funding for students with disabilities (in systems with more developed approach for students with disability, this can be expressed as percentage of total expenditure)
Gender shares of education expenditure	Female enrolments at different levels of schooling

Table 4 – Measuring funding for promoting equity

Distribution of education expenditures

Funding for poor and remote areas

Funding for poor and remote areas needs to be monitored to ensure that adequate resourcing goes to highly needy areas. Unit costs for providing education in remote areas are often much higher than in other locations because of lower pupil/teacher ratios and the need to provide additional resourcing such as boarding facilities, school feeding programs, and housing for teachers. If average expenditure per student in remote areas is less than or equal to the national average, this usually indicates an inequitable resource allocation.

Non-salary share of expenditure for poor and remote areas is very important because these communities are usually the least able to provide private sources of funding for classroom materials, equipment and school maintenance.

Targeted funding for students with disabilities

Targeted funding for students with disabilities helps track the annual amount of operational expenditure and capital investment that is available to meet the specific needs of this group.

Gender shares of education expenditure

Female enrolment rates at different levels of schooling can be applied to the distribution of educational expenditure to calculate the female share of education expenditure. This provides a useful measure of comparison to the male share of education expenditure.



An activity for you

Complete the table below to consider the key equity concerns impacting on education in your country program or a developing country known to you.



Issue	Types of problem e.g. enrolment, retention, repetition, performance, transition	Proportion of population affected	Mechanisms used to direct funding to meet these concerns e.g. funding formula, targeted programs, charity	How much is allocated annually for these groups (if known)?
Remoteness – land related				
Remoteness –				·
island related				
Ethnicity				
Gender				
Disability				
Other				

Use your completed table above to answer the following questions:

- 1. Based on the table, is there a clear picture of the equity concerns?
- 2. Have there been any studies that have identified the shortfall in funding for any of these disadvantaged groups?
- 3. Is there a policy or program already developed to address the needs of these groups? Has it been costed?
- 4. Which indicators in this module do you think would best help you track the high priority equity concerns in your country of interest?



5 TEST YOUR KNOWLEDGE

Assessment questions

Answer the following questions by ticking 'True' or 'False'. Once you have selected your answers to all the questions, turn the page to 'The correct answers are...' to check the accuracy of your answers.

Question 1

Public education expenditure as a per cent of GDP is a measure of government financial commitment towards education.

Is this statement true or false?	🗆 True	False			
Question 2					
Recurrent expenditure does not include wages and salaries.					
Is this statement true or false?	True	False			
Question 3					
Per student unit cost analyses enable comparisons over time	Per student unit cost analyses enable comparisons over time.				
Is this statement true or false?	True	False			
Question 4					
Drop-out and repetition rates are indicators of efficiency in an education system.					
Is this statement true or false?	True	False			
Question 5					

Equity and access objectives mean that private household expenditures should be highest for the basic level of education.

Is this statement true or false?

□ True □ False



Question 6

Increased education expenditure will result in better learning outcomes for students.

Is this statement true or false?	🗆 True	False	
----------------------------------	--------	-------	--

Question 7

Average expenditure per student in remote areas less than or equal to the national average can indicate an inequitable resource allocation.

Is this statement true or false?	🗆 True	False
----------------------------------	--------	-------



The correct answers are...



Question 1

Public education expenditure as a per cent of GDP is a measure of government financial commitment towards education.

This statement is true. Public education expenditure as a per cent of GDP is a measure of government financial commitment towards education. Public education expenditure as a per cent of government expenditure is an even more accurate indicator of government prioritisation.

Question 2

Recurrent expenditure does not include wages and salaries.

This statement is false. Recurrent expenditure does include wages and salaries.

Question 3

Per student unit cost analyses enable comparisons over time.

This statement is true. Per student unit cost analyses enable comparisons over time.

Question 4

Drop-out and repetition rates are indicators of efficiency in an education system.

This statement is true. Drop-out and repetition rates are indicators of efficiency in an education.



Question 5

Equity and access objectives mean that private household expenditures should be highest for the basic level of education.

This statement is false. Equity and access objectives do not mean that private household expenditures should be highest for the basic level of education. Equity and access objectives mean that public expenditures should be proportionally highest at the basic levels of education (pre-primary, primary and lower secondary), to reduce financial barriers for poorer families. This means that families should be required to pay little or no money for education at the pre-primary and primary levels, either directly as fees or indirectly for 'voluntary contributions' or other school-level charges.

Question 6

Increased education expenditure will result in better learning outcomes for students.

This statement is false. Increased education expenditure does not automatically translate to better learning outcomes for children as increased expenditure does not necessarily mean improved quality, nor does it reflect changing student: teacher ratios. In developing countries, big school population changes can occur very quickly, which in turn can greatly reduce the amount of investment per student, even if overall investment is increasing.

Question 7

Average expenditure per student in remote areas less than or equal to the national average usually indicates an inequitable resource allocation.

This statement is true. Average expenditure per student in remote areas less than or equal to the national average usually indicates an inequitable resource allocation, due to the higher costs associated with educational delivery in remote locations.



REFERENCES AND LINKS

All links accessed August, 2019

DFAT 2017, Framework for engaging on public financial management, Australian Government DFAT, http://dfat.gov.au/about-us/publications/Pages/framework-for-engaging-on-public-financial-management.aspx

GPE 2018, GPE's engagement on domestic financing for education, GPE, https://www.globalpartnership.org/sites/default/files/2019-02-gpe-domestic-policybrief_web.pdf

OECD n.d., OECD.Stat, OECD, https://stats.oecd.org/

2019, Education at a Glance, Education Finance Indicators, OECD, https://www.oecdilibrary.org/education/data/education-at-a-glance/educational-financedatasets_c4e1b551-en

UNESCO 2016, Global Education Monitoring Report 2016: Education for people and planet: Creating sustainable futures for all, UNESCO, http://unesdoc.unesco.org/images/0024/002457/245752e.pdf

2017, Global Education Monitoring Report 2017/18: Accountability in education, meeting our commitments, UNESCO, http://unesdoc.unesco.org/images/0025/002593/259338e.pdf

2019, Global Education Monitoring Report, UNESCO, https://en.unesco.org/gem-report/

UNESCO Institute for Statistics 2016, Education 2030: Incheon Declaration and Framework for Action for the implementation of Sustainable Development Goal 4, http://uis.unesco.org/sites/default/files/documents/education-2030-incheon-framework-for-action-implementation-of-sdg4-2016-en_2.pdf

2019, Education Finance, UIS, http://uis.unesco.org/en/topic/education-finance

World Bank n.d., Countries and economies, World Bank, https://data.worldbank.org/country

2012, SABER-School finance: What matters most in school finance, World Bank, http://siteresources.worldbank.org/EDUCATION/Resources/278200-1290520949227/7575842-1299533754312/SABER-School_Finance_Framework_July10.2012.pdf

2019, Public Expenditure Review, World Bank, https://openknowledge.worldbank.org/handle/10986/2109



Learn more about...

- The education system in Indonesia at this website: Jalal N & Sardjunani N 2006, Figure 13: School system in Indonesia, image, Journal Adult Education and Development, edition 67/2006, found at: http://www.dvv-international.de/adult-education-anddevelopment/editions/aed-672006/literacy-for-life/increasing-literacy-in-indonesia/
- Saber Systems Approach for Better Education Result found at: http://saber.worldbank.org/index.cfm?indx=8&pd=3
- Saber School Finance Resources and Tools found at: http://saber.worldbank.org/index.cfm?indx=8&pd=3&sub=4
- Saber School Finance Ratings and Data found at: http://saber.worldbank.org/index.cfm?indx=8&pd=3&sub=1
- Brookings Institution's What Works in Girls' Education found at: https://www.brookings.edu/wp-content/uploads/2016/07/What-Works-in-Girls-Educationlowres.pdf
- UNESCO's A Winning Equation found at: http://www.unesco.org/archives/multimedia/?pg=33&s=films_details&id=2261
- UNESCO Invest in Girls Education video found at: http://www.youtube.com/watch?v=c_te9wClv3M
- World Inequality Database on Education found at: http://www.educationinequalities.org/