

# Monitoring is mandatory to delineate education and health planning

## A portuguese experience

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**Abstract** — In this article we are willing to demonstrate why and how monitoring is so important to make improvements and so as examples we will use education and health in Portugal and its recent achievements. Without knowing where we are we will never get to know where to go to. That is the reason why monitoring is mandatory to delineate planning and so PDCA cycle is of so much importance.

**Keywords** — Life sciences, education, health, monitoring, planning, control, action, MDG, PDCA, Dewing.

## I. Introduction

“Garantee girls and women’s education is one of the most powerful ways to keep away the trap of poverty and create an environment of support to maternal and neonatal education. The mixture of efforts to expand the coverage of essential services to reinforce the systems of health with actions that potentiate the power the protection of girls and women’s health has a real potential for getting the progress moving” (UNICEF (the United Nations Children’s Fund): 2008, p. iii).

And how do we manage to know where we are and if there is a need to expand the coverage of essential services, as we are looking for doing better (towards what is called progress)?

This is the motto of this article, monitoring, as we get to “(...) supervise activities in progress to ensure they are on-course and on-schedule in meeting the objectives and performance targets” (Business dictionary: 2014) and with accurate and quality data we can be aware off .

### A. First approach

According to Lubchenco (1998) in the past, the scientific community answered, and today, is necessary to do it further more due to a major crisis “*this contract represents a commitment on the part of all scientists to devote their energies and talents to the most pressing problems of the day, in proportion to their importance, in exchange for public funding*” (UNICEF: 1998; 491).

“The Millennium Declaration in 2000 was a milestone in international cooperation, inspiring development efforts that

have improved the lives of hundreds of millions of people around the world. Ten years later, world leaders will gather again at the United Nations in New York to review progress, assess obstacles and gaps, and agree on concrete strategies and actions to meet the eight Millennium Development Goals by 2015” (United Nations: 2010; 3).

The objectives defined in 2000 for the “*target date*”, 2015, had a control point in 2010. These objectives are:

1. Eradication of extreme poverty and hunger,
2. Get to the universal primary teaching grade (quality education),
3. Promote gender equality,
4. Reduce infant mortality,
5. Get better maternal health (without risks to the mother),
6. Combat the HIV (human immunodeficiency virus infection)/AIDS (acquired immune deficiency syndrome), malaria and other diseases,
7. Guarantee environmental sustainability,
8. Get a stronger global partnership for development (productive and decent employment)

“Meeting the goals is everyone’s business. Falling short would multiply the dangers of our world - from instability to epidemic diseases to environmental degradation. But achieving the goals will put us on a fast track to a world that is more stable, more just, and more secure” (United Nations: 2010; 3).

In the control point meeting in 2010, many countries were on the right path, after monitorization which means that we all benefit with the establishment of quantitative targets towards a *timeline*. With adequate politics and financing programmes the differences and gaps are minimized, even though in the poorer countries, where a greater intervention should be needed, the progresses are not the expected.

### B. *Education as a strong weapon of social inclusion*

“Education is the most powerful weapon to change the world” (Mandela in Education for all (class of 2015): 2014).

There is a strong relation between education (universal primary), the women’s role, and their worry about their health and well-being.

According to United Nations (2010), the MDG report says that the gender equality and the women empowerment are in the middle of MDG and the pre-requisites to surpass poverty, hunger and diseases.

“Children that do not go to school are trapped in a lifetime of poverty” (Education for all (class of 2015): 2014).

### C. *Brundtland Report as the status quo as the Sustainable Development*

The Brundtland Report disseminated in 1987, well known as “our common future”, defined the Sustainable Development (SD) concept, implicitly with two concepts (“needs (of the poorest) and “limitations”, as biophysics limits of the planet that might put in question the economical growth, taking into account the environment capacity in finding its present and future needs).

### D. *Education as a primary action for a global net of knowledge*

According to “The Millenium Development Goals” (2010) the intention of aiming primary universal education of 100% which corresponds to MDG 2, with quality, in 2015 was beyond the best expectations when monitored in 2010. The results in countries considered poor or with low human development were significant as they had had huge progresses.

Enrolment in primary education has continued to rise, reaching 89 per cent in the developing world. But the pace of progress is insufficient to ensure that, by 2015, all girls and boys complete a full course of primary schooling (...). Major advances have been made even in some of the poorest countries, most of them in sub-Saharan Africa. The abolition of primary school fees in Burundi resulted in a threefold increase in primary-school enrolment since 1999, reaching 99 per cent in 2008 (United Nations: 2010; 16-17).

The 2010 report says that taking into account the year zero as 1991, out of the total regions of the United Nations, only North of Africa per si, expectably, will get 100%, before 2015.

Out of 8 MDG, the minimal expected and required for all citizens of the world, is the primary universal education, and so for it was defined an ambitious aim, that in the control point and in the years after, present a positive moderated scenario, even though it is not to expected to get to reach the target for 2015.

The education/knowledge is a “weapon” as it potentiates the teaching of boys and girls, equally, in different parts of the world that allows having the knowledge and the ethics, as referred by Boff (2014). This philosopher defined the four principles of ethics which are essential care, respect, limited responsibility and universal solidarity allowing the intervention of the active citizens in the changing, and then potentiating the quality of life.

The World Health Organizational (WHO) developed an instrument to assess the quality of life through a collaborative Project, with the partnership of a tool of assessment called “Qualidade de Vida”, that means life quality, defined WHOQOL-100. For Fleck Leal, Louzada et al. (1999) the quality of life is “(...) the perception of the individual of its position in life in a culture context and value system in which he is willing to live towards his objectives, expectations, and worries” (Fleck, Leal, Louzada: 1999; 20).

## II. Portugal (even) more “educated” and equal in gender

“The qualification of Human Resources is crucial for that the Portuguese economy and society assure a sustainable growth in a near future, as the Research and Development represent one of the main engines of the economical growth in the economy in an economy based in knowledge” (INE: 2014).

### A. *Education: articulation of global and local actors*

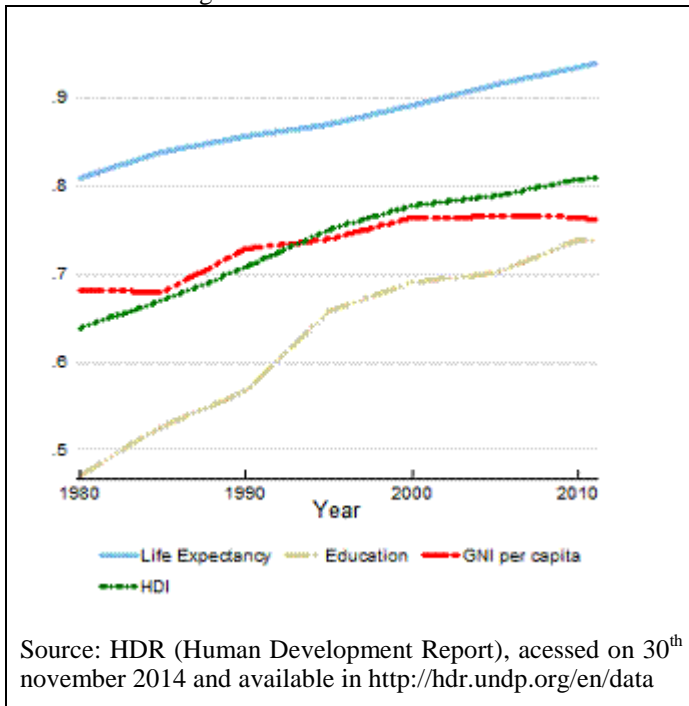
Portugal in the European Union, when compared in the regional group (of the United Nations), has been having growth and positive movements through time. Portugal in a global scale has had conditions to change the world, as illiteracy is a window of opportunity. And dit it!

### B. *The well “educated” portuguese and their responsibility in the society*

The concept of Human Development (HD) involves the idea of “ (...) know about the quality of life of a population in which we would to get to know further beyond the economical aspect and consider others as social, cultural and political that influence the quality of the human life (...)” (PNUD: 2014). This concept is the basis of to obtain HDI (Human Development Index). This composite index measures average achievement in three basic dimensions of human development, such as long and healthy life, knowledge and a decent standard of living.

In 2013 Portugal in the component “life expectancy at birth” as a measure of health registered 79.9 years.

Figure 1 – Tendencies of the indexes of the components for the HDI of Portugal from 1980 to 2010



The Index is a way to monitor the situation in Portugal using many components.

In relation to education, “mean years of schooling” and “expected years of schooling” Portugal registered 8.2 and 16.3 years respectively in 2013.

In recent years (2012 and 2013) Portugal has not changed its 41<sup>th</sup> place (among 187 countries) in HDI and it is considered to be in the highest category of development.

When comparing the most relevant curves (related to health and education) we understand what happened in the latest three decades. From 1980 to 1990 Portugal HDI’s had increased 4.1%, and from 1990 to 2000, and 2000 to 2013 10.2% and 10.1% respectively. Overall Portugal increased 16.2% in 33 years, taking year 1980 as a depart point.

We can also use a more rigorous index called inequality-adjusted HDI (IHDI) that registered a lower value than HDI in 2013, 0.739. Consequently, it takes Portugal to a loss of 10.1% and a worse position in the ranking mostly due to the yield component – gross national income (GNI).

“As adults, educated girls are more likely to have smaller, healthier families; their children are less likely to die and are more likely to receive an education than the children of less-educated mothers” (WHO: 2009; 44).

The Eco Feminist Vandana Shiva (2010) is in this line of thought, as she is in favour of the increase in the women participation in the decision taking (freely, I quote her “I mean women”). Blewitt (2009) defends that “communities often cope more effectively during natural disasters when women play a leadership role (...)”.

Portugal is in stage three of development classified as innovation-driven in the “Global Competitiveness Index (GCI), 2014-2015” in 36<sup>th</sup> place of the ranking (out of 148 countries) and has climbed 15 positions from 2013-2014.

The top 3 belongs to Switzerland, Singapore and United States of America. When analyzing the sub indexes, (1) innovation and sophistication (weights 30%), (2) basic requirements (20%), and (3) efficiency enhancers (50%), the first one is the one that leverages the ultimate result for Portugal due to innovation. As mentioned before “Research and Development represents one of the main engines of the economical growth in the economy in an economy based in knowledge”.

In the report it is said that “a new divide seems to be emerging among those countries whose competitiveness is currently lagging (Global Competitiveness Index, 2014-2015: 2014; 39). And this occurs due to economies that are adopting and implementing reforms to be more competitive in areas “less red tape to start a business (5<sup>th</sup> place) and its labor market shows increased flexibility, although more remains to be done (119<sup>th</sup> place)” (Global Competitiveness Index, 2014-2015: 2014; 40) and should raise the quality of education (40<sup>th</sup> place) and innovation capacity (37<sup>th</sup> place) to support the economic transformation of the country. We must add that higher educational training is in 24<sup>th</sup> place and social and environmental sustainability adjusted GCI we had maintain our position.

Well educated but there is more to be done, namely in SD, as planet earth has biophysics limits that put in question the economical growth and so the conscious of Education for Sustainability is a plus to be achieve.

### C. *Care for the future and guarantee the intra and inter-generational equality*

The equality has to do the impact with a better world for all, in the actual generations (intra-generational), inhabitants of “mother earth”, towards sustainability, and looking after future generations.

The intra-generational equality is not given for granted, but it has to be promoted, with means, implemented today in order to minimize impact among generations.

Poverty has many faces. It is much more than low income. It also reflects poor health and education, deprivation in knowledge and communication, inability to exercise human and political rights and the absence of dignity, confidence and self-respect” (Donald and Mottershaw: 2009; 12).

As referred in ActionAid, the relationship between the dimensions of MDG is not a single fact, but it is a reality in dissociated of the objectives per si, and so forth the education is very close to education, knowledge, and human rights (ActionAid: 2000b; 9).

It is possible to shift the paradigm. Portugal did it, despite low GNI per capita (24 130 dollars, in parity purchase power, 2011 reference year), if it was not for that, education and health altogether had already made all the difference!

#### D. *The importance of Monitoring and the PDCA cycle*

“The PDCA – Plan, Do, Act and Check is a well known model for continual process improvement (CPI), as it teaches organizations (...)” (Johnson: 2014) or companies, which in the case we use Portugal as an example for its recent experience, as if it functions as a company itself.

Portugal as any other country plans an action (in the long run we had showed some amazing results as well as in education as in health), does it (and we must say test it), checks to see how it conforms to the plan and acts on what has been learned.

That is why the MDG were delineated in 2000 to have a control point in 2010, and we were not surprised to have assisted that the world leaders gathered at the United Nations (...) to review progress, assess obstacles and gaps, and agree on concrete strategies and actions to meet the eight Millennium Development” (United Nations: 2010; 3).

In another part of the world in a Campaign called “Launch of For All Campaign” it is said that there is a need for “(...) more teachers, doctors, nurses and so that every child gets educated and goes to bed healthy” (OXFAM (is an international confederation of 17 organizations working together with partners and local communities in more than 90 countries), 2014).

Only by planning, testing and monitoring one can adjust the best way to move on, and the Portuguese experience shows that quite well.

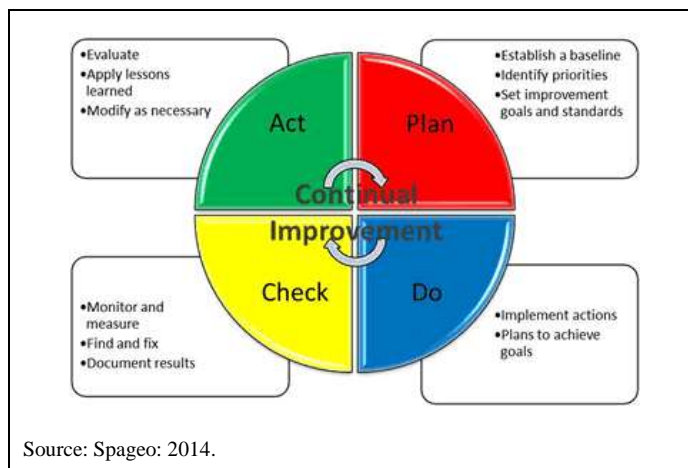
The examples quoted before in HDI, GCI we add another one, in Health, “the 35th anniversary of Portuguese Health National Service”, where we can see indicators and its performances in a short 7 minutes film (this is a commemorative video showed on the 35th anniversary of National Health Service, on 15th september 2014).

In terms of Education we can also mention an indicator that is in “GCI 2014-2015” which is “quality of management schools” that ranks Portugal in 5th place.

The Oporto University, The Nova of Lisbon University and Coimbra University are in the QS World University Rankings below the 500th place, according to QS (Quality Standards) World 2014.

Monitoring implies having targets delineated, indicators with metrics well defined and measurable, and awareness of the deviation obtained whenever checking results are obtained. This is absolutely critical in order to act and correct the planning done beforehand.

Figure 2 – PDCA cycle or Dewing cycle



#### E. *There is also more to do. It has not finished yet!*

The Dewing cycle was put in action and we demonstrate that monitoring is mandatory to delineate education and health planning. Education for Sustainable Development (EDS)?

“(...) Human brain is not organized hierarchically but adjusts to the re-ranking of values as circumstances change” (C. Crumley: 2003).

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