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No Education Reform Without Ascertainment of Educators' Quality

Practical studies have proven the impressive impact of teacher quality on student learning. Teachers near the top of the quality distribution can get an entire year's worth of additional learning out of their students, compared to those near the bottom. That is, a good teacher will get a gain of 1.5 level equivalents while a bad teacher will get 0.5 for a single academic year. Furthermore, high quality teaching can actually offset a substantial portion of disadvantages related to domestic, economic and social circumstances. In other words, the quality of teachers has consistently proven to be the fundamental mainstay of schooling quality.

The Experts Development Foundation (Mahara)

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Mahara is an independent, not for profit, human development organisation based in the UK. It was founded and is run by experts from a spectrum of professional specialities. It aims to help communities in developing nations to advance their levels of performance in areas that are pivotal to development; namely education, civil administration and the health sector.

At Mahara, we believe that the best form of aid is to help people acquire enhanced skills, and to work to high professional standards; enabling them to contribute in a more balanced way towards true sustainable development, which is felt across society.

Mahara Foundation's area of focus is the provision of programmes, which aim to edify and educate individuals in how to increase their capacity, improve their performance and reinforce the developmental impact of their occupational role.

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Khaled Mahmoud – The Experts Development Foundation (Mahara)

In an increasingly advancing and interconnected world, competition has shifted towards intellectual capital and the comparative advantage in knowledge and skills[1-2]. In recognition of this reality, advanced economies are establishing that the best policy to secure sustainability is through developing talents and advancing skills: the fundamental constituents of intellectual capital which in turn is central to creating productivity improvements[3]. In this context, efficient education systems are evolving as the principle instrument for developing talents and advancing skills. However, such systems can only play this role if they are built to high standards, carefully measured against credible international benchmarks and translated into advanced curricula, quality teaching, motivation for students and rewards for teachers along with transparent and objective administrational accountability at all levels. This means the development of a highly proficient breed of educators; able to plan, instruct, assess and manage according to top international standards. In this case, accountability is developed alongside educators' professional responsibility rather than coercive bureaucratic accountability[4].

Empirical evidence shows that an education system becomes a fundamental force in economic development, only when it can raise the pool of cognitive skills to economically advantageous levels. Generally speaking, countries with more skilled labour show faster growth; as more skilled people contribute to a faster adoption of new technologies and production processes[5-6]. However, education per se does not automatically translate into significant economic growth and the expansion in educational attainment does not necessarily guarantee prosperity.

Although schooling's impact on economic growth is known to be determined by the characteristics of individual countries[7], robust economic data confirms that, in some regions, decades of investment in education does not seem to have secured any substantial economic returns[8-14]. This suggests that the skills deficit in these regions is larger than implied by school attainment figures alone[15] which, at best, measure education inputs (e.g number of schools or budget for teachers' salaries), but not the cognitive and non-cognitive skills that students acquire (or fail to acquire) in school[16]. These skills are quality indicators of schooling outputs (e.g. practical capabilities of graduates) or education outcomes in society. In other words, they represent indicators of gain or loss regarding investments made into the education process.

This dilemma poses a serious risk; because intellectual capital is not only the best chance for sustainable economic prosperity, but also a conspicuous strategic asset for overall societal wellbeing[17-25].

Even from a mere economic perspective, the simple distribution of rent generated from natural resources does not offer a long term solution to poverty, and does not guarantee sustainable development either. On the contrary, this strategy is leading to a decline in development and after the rush of exploitation; these countries can be left even poorer than they had been previously[26-30].

The Urgent Need for an Earnest Structural Redress

Over the last half a century, many developing countries have witnessed dramatic rises in educational attainment[31]. However, cross–country analysis reveals that, despite the private remuneration that some educated individuals have achieved; these increases are not translating into significant economic or social improvements. This diversion between the rises in educational attainment and significant improvements at the social and economic level has been attributed to perverse institutional environments, stagnation of demand for educated labour and dismal schooling quality[32]. In such circumstances, years of low quality schooling are consistently failing to create economically productive human capital (let alone its social qualities) .

In other words, any investment in education can easily be wasted when schooling quality is overlooked or if the society is unable to effectively translate educational outputs into significant gains at the national level. In fact, investigating the determinants of long-run economic development confirms the profound qualitative and quantitative impact of institutions upon development not only through physical capital and total factor productivity but also through human capital[33-35]. This implies that in the presence of a tattered institutional environment, even high quality schooling is likely to yield very little economic return.

Educational reforms that succeed in making graduates with economically and socially productive skills can only happen within a social setting that exhibits determination to do all it takes to secure such invaluable and strategic assets. This social setting cannot exist in isolation, but as part of a free democratic civil society.

Cross-country experiences have shown that the implementation of successful educational reforms -those which can lead to economically productive improvements in knowledge and skills with advantageous social impact- takes time. Such improvements- if successfully introduced and completed- will not be realized until the students with higher skills move into the workforce; where the impact of skills improvement on the economy will be proportional to the average skill level amongst the labour force. Assuming the average work-life of individuals is 40 years, each new cohort of workers would be 2.5% of the work force. Thus, even after an educational reform is fully implemented, it still takes 40 years until the full labour force is at the new skill level. What also needs to be taken into consideration is the time it takes to fully implement educational reform[36]. This calculation emphasizes the urgent need to hasten adoption of well thought out educational reforms by any country keen to avoid entrapment in a never ending delusion of "development". If a developing nation is to close the economic gap with the developed world, major structural reforms in the education system and society at large will have to be introduced[37].

The Pivotal Ingredient

Efficient schooling is a sophisticated process in which several different educational and socioeconomic factors work together to create the output. One year of schooling does not create the same amount of acquired knowledge regardless of the quality of the education system in which it takes place. Assessing education on how much students have learned, rather than how long they have spent learning, shows that schooling delivers different increases in skills depending on the efficiency of the education system, quality of teaching, educational infrastructure, and curriculum[38-39]. However, there are strong evidences amongst empirical educational studies that the single biggest factor that influences all populations of students is who is teaching them[40-46]. After controlling for the biases resulting from student differences and college quality, investigations have proven the impressive impact of teacher quality on student learning. Teachers near the top of the quality distribution can get an entire year's worth of additional learning out of their students, compared to those near the bottom. That is, a good teacher will get a gain of 1.5 level equivalents while a bad teacher will get 0.5 for a single academic year[47]. Furthermore, high quality teaching can actually offset a substantial portion of disadvantages related to domestic, economic and social circumstances[48]. In other words, the quality of teachers has consistently proven to be the fundamental determinant of schooling quality. Obviously, this becomes particularly important in developing countries where good teachers could be of great help to students affected by the adversities usually common in society.

Needless to say that not all teachers are of good quality and not all teachers have a positive impact upon students' learning and development. Empirical investigation of the effectiveness of

teachers revealed that their effect upon students' schooling achievement is both additive and cumulative with little evidence that subsequent effective teachers can offset the effects of ineffective ones[49]. Practical studies also show that the sequence of teachers that a student has will have more effect than any other factor on their ultimate achievement where the residual effects of this can be seen at least four years after the student leaves the classroom, regardless of the effectiveness of the subsequent teachers[50]. In other words, if anyone is serious about economic prosperity and overall social well-being they must realize that the extensively-test and time-proven mechanism is advantageous education; which can only be achieved by reducing the likelihood that students will be assigned to relatively ineffective teachers[51]. Naturally, this means that education reform is unlikely to succeed without the ascertainment of educators' quality

References

1- The World Bank (2006)."Where is the Wealth of Nations?: Measuring the Capital for the 21st Century." The World Bank, Washington, USA.

2- The World Bank (2011). "The Changing Wealth of Nations: Measuring Sustainable Development in the New Millennium." The World Bank, Washington, USA.

3- Chatzimichael, Konstantinos and Tzouvelekas, Vangelis (2014). "Human capital contributions to explain productivity differences." Journal of Production Analysis, 41: 399-417.

4- Sahlberg, Pasi (2011) "Finnish Lessons: What Can the World Learn from Educational Change in Finland?" Teachers College Press, New York, USA.

5- Jones, Garett (2012) "Cognitive skill and technology diffusion: An empirical test." Economic Systems, 36: 444-460.

6- Hanushek, Eric A. and Woessmann, Ludger (2012). "Do better schools lead to more growth? Cognitive skills, economic outcomes, and causation." Journal of Economic Growth, 17: 267-321.

7- Rogers, Mark L. (2008). "Directly unproductive schooling: how Country Characteristics affect the impact of schooling on growth." European Economic Review, 52: 356-385.

8- Easterly, William (2002) "The Elusive Quest for Growth: Economists' Adventures and Misadventures in the Tropics: Economists Adventures and Misadventure in the Tropics." MIT Press. Cambridge, Massachusetts, London, England.

9- Abed, George T. (2003). "Unfulfilled Promise: Why the Middle East and North Africa region has lagged in growth and globalization." Finance and Development 40:1.

10- The World Bank (2008). "The Road Not Traveled Education Reform in the Middle East and North Africa." The World Bank, Washington DC, USA.

11- International Monitory Fund (2011). "Regional Economic Outlook: Middle East and Central Asia." IMF, Washington, D.C., USA.

12- International Monitory Fund (2012). "Regional Economic Outlook: Middle East and Central Asia." IMF, Washington, D.C., USA.

13- International Monitory Fund (2013). "Regional Economic Outlook: Middle East and Central Asia." IMF, Washington, D.C., USA.

14- International Monitory Fund (2014). "Regional Economic Outlook: Update, Middle East, North Africa, Pakistan and Afghanistan: Turning the Corner?." IMF, Washington, D.C., USA.

15- Hanushek, Eric A. (2013). "Economic growth in developing countries: The role of human capital." Economics of Education Review, 37: 204-212.

16- Meisenberg, Gerhard and Lynn, Richard (2013)" Cognitive Human Capital and Economic Growth: Defining the Causal Path." The Journal of Social, Political, and Economic Studies, 38:16-54.

17- Wolfe, Barbara and Zuvekas, Samuel (1995). "Nonmarket outcomes of schooling (Discussion Paper No. 1065-95), Institute for Research on Poverty, Madison: University of Wisconsin. USA.

18- OECD, (2001). The Well-being of Nations: The Role of Human Capital and Social Capital. OECD, Paris, France.

19- Schuller, Tom; Preston, John; Hammond, Cathie; Brassett-Grundy, Angela and Bynner, John (2004). "The Benefits of Learning: The Impact of Education on Health, Family Life and Social Capital." RoutledgeFalmer, London, UK.

20- Heckman, James J., Jora Stixrud, and Sergio Urzua (2006) "The Effects of Cognitive and Noncognitive Abilities on Labor Market Outcomes and Social Behavior." Journal of Labor Economics 24: 411–82.

21- Lange, Fabian and Topel, Robert (2006). The Social Value of Education and Human Capital, in Hanushek, Eric A. and Welch, Finis (Eds.), Handbook of the Economics of Education, Vol. 1 (pp. 459–509). Amsterdam: Elsevier.

22- Canton, Eric (2008). "Social returns to education: Macro-evidence." De Economist , 155:449-468.

23- Lochner, Lance (2011). "Nonproduction Benefits of Education: Crime, Health, and Good Citizenship" Chapter 2, *in* "Handbook of The Economics of Education: Vol. 4". Elsevier B.V. USA.

24- Edgerton , Jason D. ; Roberts , Lance W. and von Below, Susanne (2012) Education and Quality of Life, *in* Land, Kenneth C.; Michalos, Alex C. and Sirgy, M. Joseph (eds) Handbook of Social Indicators and Quality of Life Research. Springer Dordrecht Heidelberg London New York.

25- OECD, (2013). "What are the social benefits of education?" Education Indicators in Focus, 10:01.

26- Landes, D. S., (1998) History Gone Wrong; Chapter 24, in; The wealth and poverty of nations: Why some are so rich and some so poor. W. W. Norton and Company, New York-London.

27- Pamuk, Evket (2006) "Estimating Economic Growth in the Middle East since 1820." The Journal of Economic History, 66: 809-828.

28- Saab, Gretta and Ayoub, Maya (2010) "The Dutch disease syndrome in Egypt, Jordan, Lebanon, and Syria: a comparative study." Competitiveness Review, 20:343-359.

29- Bjorvatn, Kjetil; Farzanegan, Mohammad R and Schneider, Friedrich (2012) "Resource curse and power balance: evidence from oil-rich countries. World development, 40:1308-1316.

30- Apergis, Nicholas; El-Montasser, Ghassen; Sekyere, Emmanuel; Ajmi, Ahdi N; Gupta, Rangan (2014) "Dutch disease effect of oil rents on agriculture value added in Middle East and North African (MENA) countries ."Energy Economics, 45: 485-490.

31- Glewwe, Paul W.; Hanushek, Eric A.; Humpage, Sarah D; and Ravina, Renato (2011) "Educational Resources and Educational Outcomes in Developing Countries: A review of the Literature from 1990 To 2010." National Bureau of Economic Research, Working Paper 17554.

32- Pritchett, Lant (2001). Where has all the education gone? World Bank Economic Review 15: 367-391.

33- Hakura, Dalia S. (2004). "Growth in the Middle East and North Africa.". IMF Working Paper, WP/04/56.

34- Acemoglu, Daron and Robinson James A. (2012). "Why Nations Fail: Origins of Power, Prosperity, and Poverty." Profile Books Ltd., London, UK.

35- Acemoglu, Daron; Gallego, Francisco A. and Robinson James A. (2014). "Institutions, Human Capital, and Development." Annual Review of Economics, 6: 875-912.

36- OECD, (2010). "The High Cost of Low Educational Performance." OECD publications.

37- Eken, Sena ; Robalino, David A.; and Schieber, George (2003). "Living Better: Improving human development indicators in MENA will require different approaches to health, education, and social protection." Finance and Development 40:1.

38- Hanushek, Eric A.; Woessmann, Ludger (2007). "The Role of Education Quality for Economic Growth." World Bank, Washington, DC. © World Bank.

39- Hanushek, Eric A. and Rivkin, Steven G. (2012). "The Distribution of Teacher Quality and Implications for Policy." Annual Review of Economics, 4:131-157.

40- Sanders, William L., and Rivers, June C. (1996). "Cumulative and Residual Effects of Teachers on Future Student Academic Achievement." Research Progress Report. Knoxville, TN: University of Tennessee Value-Added Research and Assessment Center.

41- Sanders, William L. and Horn, Sandra P. (1998) Research Findings from the Tennessee Value-added Assessment System (TVAAS) Database: Implications for Educational Evaluation and Research." Journal of Personnel Evaluation in Education, 12: 247-256.

42- Rockoff, Jonah E. (2004). "The Impact of Individual Teachers on Student Achievement: Evidence from Panel Data." American Economic Review, 94: 247-252.

43- Chetty, Raj, John N. Friedman, Nathaniel Hilger, Emmanuel Saez, Diane Whitmore Schanzenbach, and Danny Yagan (2011). "How does your kindergarten classroom affect your earnings? Evidence from Project STAR." Quarterly Journal of Economics 126, no. 4: 1593-1660.

44- Jackson, C. Kirabo ; Rockoff, Jonah E.; and Staiger, Douglas O (2014) "Teacher Effects and Teacher-Related Policies." Annual Review of Economics, 6: 801-825.

45- Chetty, Raj, John N. Friedman, and Jonah Rockoff (2014) "Measuring the impacts of teachers I: Evaluating bias in teacher value-added estimates." American Economic Review 104: 2593-2632.

46- Chetty, Raj, John N. Friedman, and Jonah Rockoff (2014b) "Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood." American Economic Review 104: 2633-2679.

47- Hanushek, Eric A. and Rivkin, Steven G. (2006) "Teacher Quality." Chapter 18, in Handbook of the Economics of Education, vol.2, Hanushek, Eric A. and Welch, Finis (eds), Elsevier B.V.

48- Rivkin, Steven G.; Hanushek, Eric A.; and Kain, John F. (2005). "TEACHERS, SCHOOLS, AND ACADEMIC ACHIEVEMENT." Econometrica, 73: 417—458.

49- Sanders, William L. and Rivers, Jine C. (1996). Cumulative and residual effects of teachers on future student academic achievement: University of Tennessee Value-Added Research and Assessment Center.

50- Sanders, William L. (2005) "Value-added Assessment: Linking Student Achievement to Teacher Effectiveness." University of Tennessee Value-Added Research and Assessment Center.

51- Sanders, William L. (2000). "Value-added assessment from student achievement data: Opportunities and hurdles." Journal of Personnel Evaluation in Education, 14: 329—339.

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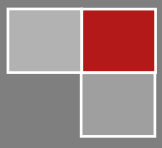

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