How Best to Invest: Human Capital in Economic Development

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Not many questions are of such importance, and arouse such debate as the question of where developing countries should direct investment. In this essay, Mide Ni Ghriofa outlines the merits of investment in human capital to spur development. She then provides us with a thorough description of best practice in human capital investment, as well as the trade offs involved. The value of human capital investment in a more general sense is then conveyed to the reader, leading to the conclusion that investment in people is crucial if we wish to see true development.

The importance of health and education seem perhaps intuitive. We grow up hearing that your health is your wealth and that education is the key to a better life. On a societal level, devoting resources to healthcare, education and training is investment in human capital; in people and their ability to lead fruitful lives. This human development leads to economic development and growth. However, the simplicity of this argument masks the complexities and substantial challenges of investing in human capital. This essay argues that the central question is of course not whether or not to invest in health and education, but how best to invest.

Furthermore, while investment in human capital is necessary for development, it is by no means sufficient. Investment in health and education must happen together with progress in other areas in order for it to achieve the best possible outcomes. This essay will begin by discussing the rationale behind investing in human capital. This will be followed by a discussion of how best to invest in human capital according to a number of criteria for successful policy-making, followed by an analysis of key demographics and trade-offs central to development and behavioural aspects in creating optimal outcomes from human capital investment. Finally there will be a discussion of the need for an integrated approach and human capital in the context of other key policy changes.

Achieving Our Potential

Human capital can be defined as 'productive investments embodied in human persons' (Todaro 2009: 826). While this may sound abstract, investing in people leads to concrete returns. There is much evidence that indicates a positive relationship between levels of human capital and economic development (Barro 1992). Causality can go both ways, with more developed countries having more to spend more on health and education, but theory and evidence show us that healthier and more educated people are more productive.

A clear economic incentive for governments to invest in human capital exists due to externalities. With the social benefit of both health and education being greater than the private benefit, and the quantity demanded being below the optimal level, it makes sense for the government to subsidise such goods and services or directly provide them. Furthermore, government intervention can break the poverty trap. If we assume a nutrition-based poverty trap, those living in abject poverty have just enough income to sustain themselves, but not enough to be healthy and work productively, and because they can't work productively and earn more, they can't afford the extra food they need to be healthier. Breaking this vicious cycle would allow for a much more productive work force and is a strong argument for investing in human capital.

Investing in health and education together is advantageous as many complementarities exist. Investment in health improves educational outcomes and vice versa. A famous study demonstrating this is that of Miguel and Kremer (2004) where treatment of worms was shown to decrease pupil absenteeism significantly. Furthermore the growth of human capital is cumulative meaning investing in health and education today will lead to improved outcomes for the next generation (WDR 2007: 4).

Providing citizens with a decent level of well-being and education empowers individuals and strengthens society. Skills, abilities and health facilitate people to have agency, defined as 'the socioeconomically, culturally, and politically determined ability to shape the world around oneself' (WDR 2006:5). This allows citizens to become better decision-makers and engage in the political process which can lead to stronger societies and better democracies. Giving people the opportunity to make the best of their life improves self-esteem and allows them to fulfil their potential (WDR 2006: 5). Clearly, equality of opportunity in education and health equity are desirable in and of themselves but are also necessary for development and growth. Investment in human capital allows individuals to achieve their potential and thus the economy can do the same.

How Best to Invest

Human capital undoubtedly plays a vital role in development and growth, however this assertion oversimplifies matters and glosses over the complexities challenges of investing in human capital. The question, of course, is not whether or not to invest in human capital or not, but rather how best to do so. This section begins by outlining some criteria which investments in human capital should fulfil; policies should be evidence-based, sensitive to context and equality, enable and empower and should build on progress.

Having discussed these requirements for fruitful investment in health and education, three approaches to how best to invest will be explored; targeting key demographics, balancing trade-offs, and behavioural aspects in health and education investment.

Evidence-Based Policy

The body of high-quality research into the impact of policy and causal effects of investments in education and healthcare is growing. Much of the evidence tallies with theory but we must be willing to accept when the empirical evidence means we need to reconsider our assumptions. Glewwe and Muralidharan explore a wealth of high-quality studies to see what exactly works to improve school enrolment, attendance and learning outcomes for students and emphasise 'the importance of theoretically-informed program design' (2015: 35). However, many interventions built on solid theoretic foundations fail to yield results. In these cases we must ask why.

One study into the effect of textbooks by Glewwe et al. (2002) highlights such a case. An input such as textbooks seems highly likely to improve classroom learning however their results on education outcomes are ambiguous. When we look however at what underlies behind this, the answer is relatively simple. Students could not make use of the textbook as they did not understand the language in which it was written. Thus we should not discount the value of textbooks themselves, but empirically testing theory can highlight key flaws in policy and is crucial to the process of choosing how best to invest.

When investing in healthcare for the poor, public sector provision of health may seem the obvious answer. However facilities are often very poor, absenteeism of personnel is prevalent and the quality of healthcare is low. The World Development Report 2006 argues that depending on 'traditional supply-side model' of public hospitals as the centre of the health system is bad for poor and marginalised groups and that policy-makers should focus on 'public provisioning or regulation that provides some insurance for all.' (WDR 2006: 12). When empirical evidence shows conventional ideas are failing, policy-makers must be willing to adjust policy accordingly. Decisions must not be made on the premise of supposed benefits but rather on what will yield results. Only when policy-makers are willing to review programmes for their true impact and adjust them accordingly, will investment yield optimal outcomes.. Only then can investment in human capital yield the optimal outcomes.

Equality and Cultural Context

Lamentable as it may be, it can said that, 'In many developing countries, the actions of the state in providing services magnify—rather than attenuate—inequalities at birth' (WDR 2006: 11). Policy-makers must do their utmost to ensure this is not the case. Language was highlighted above as a barrier to using textbooks. Education systems particularly in linguistically diverse regions must make sure that language and cultural factors are not barriers to education. Dutcher (2001) argues that education in the mother tongue is essential to create equality of opportunity in education in developing countries. Ethnicity and gender can also be barriers to accessing education and health in many developing countries, but policy design can work around these issues, once they are identified. Kazianga et al. (2013) analysed the provision of 'girl friendly' schools in Burkina Faso and found significant effects on enrolment rates particularly among girls.

Ethnicity, language, and gender are just some of the grounds upon which many are discriminated. People should not be denied education and health care on these grounds. It is imperative that investment in human capital takes the reality of discrimination into account and tries to address it. In deciding how best to invest, this crucial cultural context simply cannot be ignored.

Enabling and Empowering

When investing in human capital, policy-makers take on a paternalistic role and must exercise caution. The provision of goods and services is certainly necessary but cash transfers allow people to decide to how best to improve their welfare according to their own preferences.

Increased income does not always translate into more investment in health and education, (Behrman and Deolalikar 1987) however sometimes it can have desirable effects. Baird et al. (2012) conducted a study on the effects of cash transfers on the prevalence of HIV and other STIs and in Malawi. They had two treatment groups, one of which received cash transfers conditional on attending school and another which received unconditional cash transfers. They found HIV was significantly lower in the combined treatment groups but no difference between the two and treatment groups indicating that staying in school longer wasn't the driving factor behind lower HIV prevalence. Rather the extra money empowered women meaning they were less likely to become sexually active at a younger age, to have older partners, and to engage in transactional sex. Women now had more power in relationships and self-determination of their sexual behaviours.

This has important policy implications because it shows that people often would rather make better choices and are simply constrained by their lack of money. Poverty may indeed be the underlying issue and unconditional cash transfers which give women and girls the ability to make the choices they want leads to the desired outcome. Policy should aim to empower and help people make the best choices for themselves.

Building on Progress

Investment in human capital should be regarded as an ongoing process whereby it builds upon progress and reflect new targets. For example, in improving education outcomes, the focus at first was on increasing enrolment. Once universal primary school enrolment in many countries was achieved, the need was recognised to now increase school attendance. Now we must build upon that by improving teaching quality. It is imperative to find out "how to translate increases in student enrolment and attendance into improvements in skills and human capital" (Glewwe, Muralidharan 2015:10).

Countries might begin by investing the provision or supply of education and health, but once programmes are in place, this must be accompanied by policies to increase demand for education, preventative health care, training and skills. Demand for preventative health care remains low, but preventative can be vital in improving health outcomes. Similarly, it makes little sense for a country to invest in high-quality, accessible education if the take-up rate stays low. Jensen argues that educational attainment is low despite high returns to education, and therefore that providing information may be a cost-effective way to improve education outcomes (Jensen 2010: 515. This, combined with the aforementioned measures can help investment improve in its efficiency in getting results.

Approaches to Investment

Targeting Key Demographics

Given these considerations for best practice, where and how should investment be targeted in order to maximise the gains from it? The World Development Report 2007 makes a compelling case for focusing on young people as the future, and investing in their human capital. It emphasises the importance of early childhood intervention and of providing young people with the skills and health they need to be a productive workforce. The report argues this on two premises; firstly, that young people have a higher capacity to learn and adopt good behaviours and secondly, that young people's human capital outcomes will have a big effect on those of their offspring (WDR 2007: 4). It speaks of a window of opportunity due to the sheer number of young people in the world today; 'If countries fail to invest in human capital—which is most profitable for the young—they cannot hope to reap this demographic dividend.' (WDR 2007: 4).

Much research has focused on women as a target group in development strategies. 'To achieve gender equality and empower all women and girls' is the fifth of the 17 SDGs and gender plays a big role in determining how best to invest in human capital. The majority of the world's poorest people are women. Not only is equality desirable in and of itself, it also has the potential to improve outcomes for the economy. Many studies have shown that 'educational discrimination against women hinders economic development' (Todaro: 384). Furthermore, research has shown that when women are more likely to spend their income, on their children and that improving the health education of women improves their children's health, so development policies focused on this bring benefits for the next generation, the importance of which was outlined above.

Policy-makers also face difficult decisions regarding investment in rural and urban areas. It might seem sensible to invest in human capital in urban areas as trends show that more and more people are migrating into cities, that there are serious problems with unemployment in urban areas, as well as other challenges of unsustainable population growth in cities. However creating more job opportunities and education will only encourage more people to move to the cities to fill those jobs, leaving cities with the same problem of inability to cater for such large numbers. Thus investment in human capital in rural regions and rural development in general is essential to keep cities from becoming unsustainable (Todaro 2009: 350). However it could also be argued cities promote economic development by aiding ammolgomation and improving productivity. We must be mindful of these kinds of trade offs when targeting investment. While targeting investment at particular groups can improve welfare of the whole population, in some cases investing in one group can mean neglect of another.

Balancing Trade-Offs

Like any other type of investment, improving health and education outcomes leads to a number of trade-offs. It is worth examining these when evaluating potential policies investing in human capital to come to an informed decision about how best to invest. In terms of health, much progress has been made by the Millennium Development Goals (MDGs). However the framework of the goal has been criticised for promoting 'vertical' programmes that target specific diseases as opposed to 'broader, cross-cutting investments in health systems that can deal with all health issues in a more integrated manner.' (WHO 2015: 7)

This presents a challenging trade-off. While there has been huge improvement in some health outcomes, health systems are very weak, and it is argued that this leaves these countries unable to ‘respond to challenges, for example infectious disease outbreaks’ citing the West Africa Ebola epidemic. (WHO 2015:7). As with many such questions, the answer is not clear cut and ideally we strive for a both. Oftentimes health crises have such devastating impact that, as a ‘first things first’ approach, disease-specific programmes to alleviate the worst of the damage are simply the only option.

When investing in the education system a somewhat similar problem is encountered. Todaro highlights the trade-off between deepening investments in human capital versus extending it to more people (2009: 394). On the premise that the quality of education drives increases in income and productivity, policy-makers should focus on improving current schools as opposed to extending education to more children but Todaro emphasises the questions that this raises around equity and equality of opportunity.

A further trade-off arises when deciding how to divide investment between primary, secondary and tertiary education. Providing free university tuition may seem like a step towards giving the disadvantaged access to the same educational opportunities as the rich but poorer children are often excluded from secondary education and thus tertiary, due to costs and credit constraints. The social cost of education is much higher for university students than primary school children, therefore the government should invest more in primary education and less in university. However strong universities can lead to important advances in development driven by less developed countries which should not be dismissed either. These trade-offs are not clear-cut investment necessitate nuanced answers, however examining them can help to deepen understanding of the situation.

Behavioural Aspects

Often the devil is in the detail. There is increasingly a focus on behavioural aspects to decision-making and how programme design can improve incentives to invest in education and health. The debate on the subsidising of bed nets to prevent malaria highlight this. The bed nets have a large positive externality which means there is a strong argument for the government to provide nets for free (Sachs 2005) however it is argued that due to the lack of a psychological sunk cost effect people will value the nets less highly, be less likely to use them, and due to entitlement effects, expect them for free in the future (Easterly 2006). There is a trade-off between providing the nets for free and risking waste, and charging for the nets, and so risking decreased coverage; so the challenge lies in finding the right middle ground.

Small incentives can have large impacts on the success of policies. One experiment examined the impact of small rewards for mothers bringing their children to be immunised in Udaipur, India (Banerjee et al. 2010). Small rewards such as a kilogram of lentils yielded very significant results in the amount of children being fully immunised, doubling the effectiveness of the immunisation camps. Families didn't necessarily need the beans but receiving them provided the extra behavioural push needed to make the programme much more effective. Barerra-Osorio et al. look at how conditional cash transfers can be designed with 'commitment devices' that incentivise re-enrolment and graduation and they find that these incentives have significant effects. (2011: 180). These examples highlight the importance of taking the complexities of human behaviour into account in policy and using them to our advantage.

Human Capital in the Broader Context

As previously stated, investing in human capital is necessary but not sufficient for development. Governments must ensure that this investment happens in conjunction with other kinds of social, economic and political progress. Investment in health and education on their own is of course limited in what it can achieve and does not exist in a vacuum. An integrated approach is increasingly seen as imperative for making strides in development, and this attitude is reflected in the Sustainable Development Goals (SDGs) which aim to be 'integrated and indivisible'[1].

The WHO Report 'Health in 2015: from MDGs to SDGs' highlights the connections between the goals for example how 'health affects, and is in turn affected by, many economic, social and environmental determinants' (WHO 2015: 9) and defines urbanisation, pollution, climate change as important determinants of health. The interrelatedness of these factors means that an integrated and multifaceted approach is vital to make investment in human capital fruitful. It makes little sense to be investing in treating pulmonary disorders for example if the underlying problem of pollution is not simultaneously addressed. It also advocates a 'Health in all Policies' approach, whereby government policies should always take health impacts into account in the transport and agriculture sectors for example (WHO 2015: 9).

Goal 16 of the SDGs is 'Peace, Justice and Strong Institutions'; promoting peace and reducing conflict are essential in achieving better health and education outcomes. Furthermore, differences in capital accumulation and productivity are driven by institutions and government policies, or social infrastructure (Hall, Jones 1991: 1). The rule of law and solid institutions are essential so that the returns to health and education can be realised.

Initiatives such as the MDGs and the SDGs can contribute hugely to a climate of sustainable investment in human capital. Not only did official development assistance increased by an astounding 66% between 2000 and 2014 (WHO 2015: 4), the SDG can also have impacts on aid and donor practices and on governments. In order for investment in health and education to yield optimal results we need international cooperation and a move towards equal relationships between developed and less developed countries. Indeed the SDGs seeks to be genuinely universal and relevant to all nations[2].

Investment in human capital is made possible by governments having adequate resources to devote to it. Oxfam's report 'Tax Battles' highlights how tax dodging by multinational corporations is depriving governments of their ability to provide for their citizens (Oxfam 2016: 2). Equitable taxation is essential to facilitate investment in human capital, and this investment must also be accompanied by policies to reduce inequality general. As previously discussed, this inequality of opportunity is both ethically and economically undesirable. A more equitable society will allow people and the economy to achieve their potential, thus leading to further development.

Conclusion

Investing in people is essential to allow them and economies to achieve their potential. While policy-makers face challenges in choosing on how best to invest, well-design policies can contribute greatly to development. Investment must be placed in a broader context of other goals. Only then can we reap the full rewards of investing in human capital investment and development.

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1 https://sustainabledevelopment.un.org/post2015/transformingourworld accessed 17 December 2016.

2 https://sustainabledevelopment.un.org/post2015/transformingourworld accessed 17 December 2016.