

**To what extent is  
education the most  
important factor in the  
development of India?**

**4186 words**

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## Introduction

India has seen rapid economic growth in recent years as a result of economic liberalisation with a lessening of protectionist measures in the 1990s. India's GDP growth is very high with a growth of 7.1% in the third quarter of 2018<sup>1</sup> making it one of the fastest growing economies in the world. With such rapid economic growth, many consider India to be an emerging economy but it should be noted that India still ranks 130th out of 189 countries<sup>2</sup> on the 2018 United Nations development Index, showing that India still continues to be a developing country despite high growth in recent years. Development as defined in the 2016 UN Development Report is "the development of the people through building human capabilities, by the people through active participation in the processes that shape their lives and for the people by improving their lives."<sup>3</sup> Jayati Ghosh, professor of Economics at Jawaharlal Nehru University, Delhi argued that "the development project in India is nowhere near complete- indeed it has barely begun."<sup>4</sup> Therefore, on the basis that India is still a country on the road to development this report will be investigating whether education is the most vital factor in developing the nation. Chapter one will explore the link between education and economic growth. Chapter two will investigate how increases in education will help alleviate the rapid overpopulation in India which hinders development. This report strives to discover whether education is the most important factor to economically develop India. If education is the most important factor in the development of the nation, then there should be a greater emphasis in government agenda on improving access and quality of education. Currently, education levels in India need to be improved with a ranking of 135th out of 187 on the Education Index created by the UN development programme<sup>5</sup> and an overall adult literacy rate of

1 mark background

1 mark clear aim

<sup>1</sup> <https://tradingeconomics.com/india/gdp-growth-annual>

<sup>2</sup> <https://economictimes.indiatimes.com/news/economy/indicators/india-ranks-130-in-uns-human-development-index/articleshow/65812719.cms>

<sup>3</sup> [hdr.undp.org/sites/default/files/2016\\_human\\_development\\_report.pdf](http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf)

<sup>4</sup> <https://www.theguardian.com/global-development/poverty-matters/2014/apr/07/is-india-still-a-developing-country>

<sup>5</sup> <http://hdr.undp.org/en/content/education-index>

69.30% in 2011 as of data collected from the World Bank. <sup>6</sup> Ultimately, it is clear that education plays a vital role in the economic development of India and there should be a greater emphasis upon it.

1 mark justification

<sup>6</sup> <https://data.worldbank.org/indicator/SE.ADT.LITR.ZS?locations=IN>



## **The relationship between education, inclusive economic growth and development in India**

### **The Impact of Universal Basic Skills on Development**

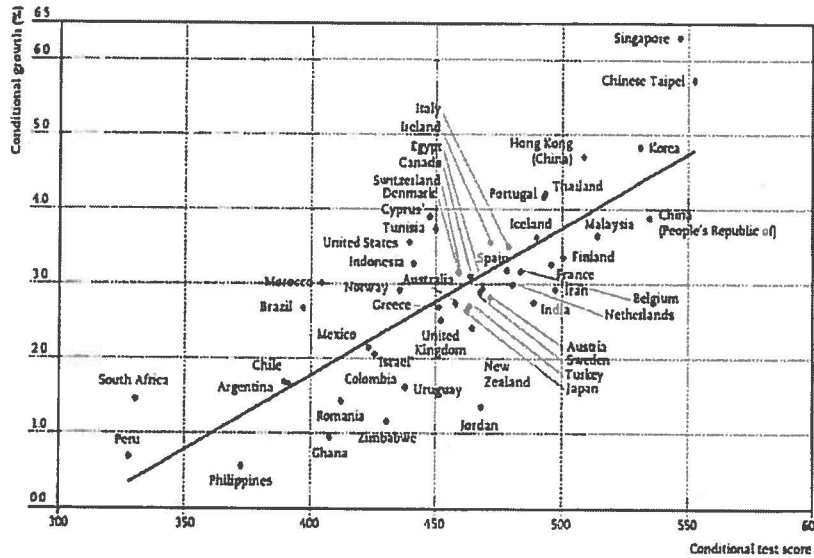
An OECD report titled "Universal basic skills: What countries stand to gain" written in 2015 argued the vast benefits countries can gain from the effort towards achieving universal basic skills. The report argued: *"Over time, the knowledge capital of the nation improves as better- educated youth enter the labour force. The more skilled workforce leads to increased economic growth and other positive social outcomes."*<sup>7</sup> There is a clear relationship between education and an increase in the economic growth of an economy. As the education of a population increases in turn the skills of the population increase which subsequently has the impact of increasing the productive potential of the economy, which would shift the Productive Potential Curve to the right and in turn lead to inclusive economic growth. A diagram in the OECD report shows the "marginal impact of knowledge capital on long run growth".<sup>8</sup>

1 mark for applied economic theory in the context of the issue

<sup>7</sup> "Universal basic skills: What countries stand to gain", OECD report, 2015, Page 18

<sup>8</sup> Ibid, page 26

FIGURE 2.1 KNOWLEDGE CAPITAL AND ECONOMIC GROWTH RATES ACROSS COUNTRIES



The diagram in the report illustrates the annual growth between 1960 and 2000 against average test scores. The data shows how as the test scores of a country increase the conditional growth of the economy is also seen to increase therefore showing the positive impact of increased education in economies. In the context of India, increasing education would result in inclusive economic growth. Inclusive economic growth is economic growth that is "distributed fairly across society and creates opportunities for all."<sup>9</sup> Inclusive economic growth has a strong correlation to economic development. The OECD report goes on to argue "The inclusive growth made possible through universal achievement of basic skills has tremendous potential as a way to address issues of poverty and limited health care, and to foster new technologies needed to improve the sustainability of growth."<sup>10</sup> This clearly shows a clear link between the inclusive economic growth from

1 mark for integrat and interpreting relevant supporting graph

<sup>9</sup> <https://www.oecd.org/inclusive-growth/>

<sup>10</sup> Universal basic skills: What countries stand to gain". OECD report, 2015, Page 18

1 mark for analytical or evaluative comment

education and economic development because it shows how the achievement of universal basic skills in an economy can increase living standards as there is an increase in the number of people who are qualified to be able to work in more skilled sectors of the economy, which therefore works to alleviate issues such as poverty. This would be particularly important in an economy such as India because currently over 50% of Indian labour works in the primary sector despite it only accounting for 12% of GDP largely due to poor education levels.<sup>11</sup> Furthermore, in 2016-2017 the Indian total gross enrolment rate for tertiary education was only 25.2%.<sup>12</sup> The impact of an increase in education on development is clear in light of these statistics because clearly at present with low education levels there is an oversupply of labour for the primary sector, in comparison to its proportion of GDP, due to the lower skill requirement. As a result of the lower skill requirement of primary sector work the wages of those employed in primary sector work tend to be lower than other more skill based sectors. Therefore, if there were an increased number of people with the education levels and skill to be employed in more skilled sectors than the living standards of a significant proportion of labour would increase, significantly contributing towards the economic development of India.

1 mark for analytical or evaluative comment

### India's demographics and the subsequent potential education has on development

Moreover, India's education must be at the heart of policy in order to capitalise on the demographics of the nation in order to achieve economic development in the long run. India has an increasingly young population with 65% of the population being of working age in 2012.<sup>13</sup> A World Bank article strongly argues that in order for India to be able to benefit from the demographics of such a young population there needs to be a greater emphasis on education as the growth in recent years has largely been "jobless" due to

<sup>11</sup> The impact of education on economic growth: the case of India, S Kobzev Kotásková, 2018

<sup>12</sup> <https://indianexpress.com/article/education/indias-gross-enrolment-ratio-in-higher-education-up-by-0-7-5012579/>

<sup>13</sup> <http://blogs.worldbank.org/jobs/education-and-employment-big-push-needed-india-s-youth>

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the lack of education within the country<sup>14</sup>. The result of jobless growth is that a significant proportion of the jobs created by economic growth are simply inaccessible to a vast proportion of the population, therefore reducing the possibility of development from increased living standards from jobs. This is further argued in a CNN article which says: "Unless India makes big improvements in how it educates and trains students, this demographic boom could instead saddle the country with another generation of unskilled workers destined to languish in low-paying jobs."<sup>15</sup> This shows how until the education within India improves issues of workers being rendered to low paid and low skilled jobs will persist, even with jobs from the economic boom, as workers will simply not have the skills to fill the jobs. Within the country, there is also evidence of a shortage of workers for skilled labour in certain sectors. For instance, India will have only 778,000 civil engineers for 4.6 million slots and only have 17% of the 427,000 architects needed in 2020.<sup>16</sup> This clearly shows a significant shortage in skilled labour within the country despite such a high overall population. The shortage in skilled labour firstly illustrates the sheer extent of lack of education facing a significant proportion of the economy. In fact, research discovered that 50% of Indian children drop out of school at primary level.<sup>17</sup> Secondly, the shortage of skilled labour especially in fields such as civil engineering and architecture has a negative impact on development because it is imperative for economies to have a workforce with a significant number of civil engineers and architects in order to improve the infrastructure within the country. Therefore, with an increase in the availability of education the current skill shortage in important sectors such as infrastructure could be tackled which would greatly contribute towards the development of India.

1 mark for in-depth, substantive analytical or evaluative comment - integrating referenced findings into a clear argument

<sup>14</sup> Ibid

<sup>15</sup> <https://money.cnn.com/2016/04/08/news/economy/india-population-skills-gap-education/>

<sup>16</sup> Ibid

<sup>17</sup> The Impact of education on economic growth: the case of India, S Kobzev Kotásková, 2018



### Education leads to inclusive economic growth

Furthermore, inclusive economic growth generated from education has the further economic impact of growing the economy at the same time as decreasing usual externalities of growth such as income inequality, which further improves the economic development of India. The OECD report argues "*Achieving the development goal of universal basic skills has a complementary impact on reducing gaps in earnings that filter into smaller income differences.*"<sup>18</sup> Education improvements in India could directly reduce income inequality because when people are more skilled, they have an increased ability to demand higher wages and work in more skilled professions therefore increasing the wages of the middle and working classes of India and decreasing the vast income inequality in the country. Currently, income inequality is rife in India with statistics showing how the richest 1% of Indians own a staggering 58% of the country's wealth.<sup>19</sup> The increases of income as suggested by the OECD article would have the benefit of increasing the living standards of the rest of the population who would have the ability to work in more skilled sectors after education which tend to be higher paid sectors. This would lead to development as living standards across the country would improve. The decrease in income differences would also have the impact of leading to development as there would be an increase in social mobility as more of the population would have higher income levels.

1 mark for analytical or evaluative comment

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However, some argue that one must not overstate the significance of education leading to economic growth. In reference to the diagram from the OECD report, the writers of the report mention the criticisms that have faced data estimating the link between education and economic growth. The writers say: "*there have been concerns about the instability of estimates which has been seen as mis-specified relationships that likely omit the influence of other factors.*"<sup>20</sup> This means that some of the estimates portraying the

<sup>18</sup> "Universal basic skills: What countries stand to gain", OECD report, 2015, Page 13

<sup>19</sup> <https://www.businesstoday.in/current/economy-politics/oxfam-india-wealth-report-income-inequality-richest-poor/story/268541.html>

<sup>20</sup> "Universal basic skills: What countries stand to gain", OECD report, 2015, Page 26

1 mark for analytical or evaluative comment

relationship between education and economic growth are not accurate because they may not adequately include other factors causing the growth. Therefore, it is important to consider that education may not be the singular driving in India force resulting in economic growth and subsequent economic development due to the prevalence of other factors and how data may not accurately reflect these other factors. *h*

1 mark for in-depth, substantive analytical or evaluative comment - using referenced material to develop analytical commentary

Furthermore, Professor Simon McGrath Professor of Education and International Development at the University of Nottingham argues that *"Of course investing in education leads to improved incomes, but that's just too simple a model to account for real development in the real world."* <sup>21</sup>Clearly, McGrath sees education as an important driving force of development but sees that there are other factors at hand which contribute towards development. McGrath goes on to argue that: *"If you take a human capital view of economic development, it's fairly straightforward: if you invest in people's education, then incomes will develop. But that presupposes that people are going to get jobs and that there's something that's actually driving the development."* <sup>22</sup> This shows how despite education significantly increasing the human capital within an economy it is important to consider that there must be jobs created in the economy which allow people to capitalise on their education, showing the importance of other factors. Therefore, in the context of India despite education increasing human capital in order to achieve development there would also need to be jobs for people to be able to fill. *h*

In conclusion, on balance it is clear that education significantly leads to economic growth which in turn leads to economic development. As outlined in the OECD report and diagram there is an undeniable correlation between education and economic growth with subsequent development. Education is particularly important in the development of India because it allows for the growing young population to be able to work in more skilled and higher paid labour instead of the primary sector which would in turn increase living

<sup>21</sup> <https://www.elsevier.com/atlas/story/people/higher-education-is-key-to-economic-development>

<sup>22</sup> Ibid

standards across the country. Furthermore, with an increase in the number of skilled people in the country the gaps in skilled sectors such as architecture and civil engineering could be filled contributing to development due to an increase in the potential for infrastructure gains.

1 mark for relevant, supported or justified conclusion

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## The relationship between education, overpopulation and development in India

There is a clear relationship between education, overpopulation and the economic development of India. India is currently facing a rapid expansion in population. India's current population of 1.32 billion is projected to reach 1.8 billion by 2050.<sup>23</sup> Furthermore, Indians constitute nearly one sixth of the world population.<sup>24</sup> This clearly indicates the rapid population growth of the nation with predictions of India overtaking China in becoming the most populated country in the world. Yet, the rapid population growth places immense strains on its development.

Evidence and economic theory can clearly show that overpopulation of a nation places increased strains on developmental efforts due to overpopulation increasing the scarcity of resources. An article in the International Policy digest discussed the consequences overpopulation could have on India by saying: *"Drinking water, sewage treatment, inadequate rainfall, rapid depletion of natural resources, extinction of many plant and animal species due to deforestation and loss of eco-systems, increased level of life-threatening air and water pollution, high infant and child mortality rate and hunger due to extreme poverty are some of the results of over-population."*<sup>25</sup> This clearly shows how overpopulation will hinder developmental efforts as with overpopulation in a nation there may be an externality of food shortages and subsequent hunger throughout the nation which would subsequently significantly worsen living standards throughout India. The growing scarcity of resources as a result of overpopulation is further emphasised in research which shows that by 2050 in India, with predicted population increases,

1 mark for analytical  
or evaluative  
comment

<sup>23</sup> <https://borgenproject.org/overpopulation-in-india/>

<sup>24</sup> Ibid

<sup>25</sup> <https://intpolicydigest.org/2017/06/19/impact-of-overpopulation-on-india-s-growth/>



1 mark for analytical or evaluative comment that is based on research

the demand for water is predicted to be 50% more than it was in 2000.<sup>26</sup> This strain on resources in India as a result of rapid population increase has the harmful impact on future and present development as it means that any development gain will effectively be neutralised by the effects of population growth. Therefore, with the knowledge that there is a clear relationship between overpopulation hindering development it is imperative to find methods to curb population growth. In fact, in recent years research has shown a clear link between education and decreasing average fertility rates in nations which has the subsequent effect of slowing population growth.

1 mark for interpreting relevant supporting data

There is clear evidence which shows how improvements in education, particularly female education, have the impact of decreasing fertility rates in countries. A landmark report written by Jean Dreze and Mamta Murti in 2000 comparing the impact of education on fertility levels in India was an important piece of research that clearly illustrated the relationship between female education and fertility levels within the nation. The report argues that: *"Even after controlling for fixed effects, women's education emerges as the most important factor explaining fertility differences across the country and over time."*<sup>27</sup> Furthermore, the report shows that the total fertility rate decreased by 0.7 children from the 1981 census to the 1991 census at the same time as increases in female literacy from 22.2% to 29.9%. This research solidified the relationship between improvements in education and decreases in the fertility rate of India. Furthermore, the impact of female education had a clear effect of decreasing the fertility rate which would in turn decrease the rate of population growth, which hinders development due to the subsequent shortage of resources. The relationship between female education and decreasing population growth can be seen to arise due to economic theory showing how when a woman has a greater level of education it can be seen to increase the opportunity cost of her time as she could be using her education for other pursuits which may conflict with the time required to raise a child. Furthermore, increases to education levels can decrease the

1 mark for applied economic theory in the context of the issue

<sup>26</sup> <https://www.indiatoday.in/education-today/ok-current-affairs/story/population-control-bill-india-crisis-1313179-2018-08-13>

<sup>27</sup> "Fertility, Education and Development", Jean Dreze and Mamta Murti, January 2000

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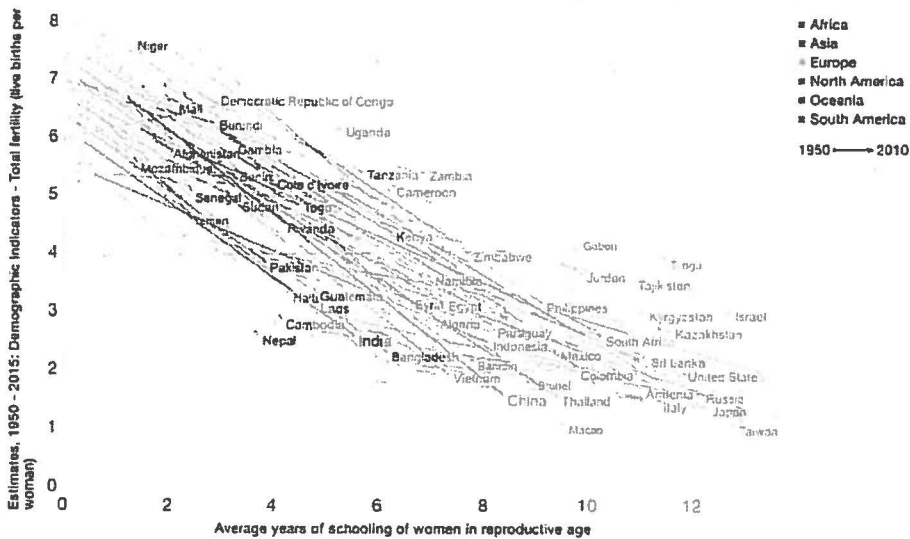
fertility rate because with education women are more aware of methods such as family planning and contraception. Therefore, the impact education can have on development is immense because with education contributing to lower fertility rates and lowering population growth it means that in the long run there will be less of an acute resource shortage which is faced in India due to overpopulation.

0 marks for interpreting relevant supporting graph - as the maximum of 2 marks for this has been reached

Recent data illustrates the relationship between education and falling fertility rates. Research from the "Our World in Data" organization clearly illustrated this relationship in the diagram below.<sup>28</sup> The diagram shows the relationship between women's educational attainment versus fertility, clearly showing how as the average years of schooling increases in a country, the average fertility rate subsequently decreases. Therefore, if

**Women's educational attainment vs. fertility, 1950 to 2010**

Shown on the x-axis is the average number of years of schooling of women in the reproductive age (15 to 49 years)



Source: Our World in Data (2017) UN Population Division (2017 Revision) OurWorldinData.org fertility rate • CC BY SA

education access and enrollment in India were to improve then this would have the impact

<sup>28</sup> <https://ourworldindata.org/fertility-rate>

**0 marks for analytical or evaluative comment - as the maximum of 10 marks for this has been reached**

of decreasing fertility rates, and subsequently improving the chance of development as developmental gains would not be washed away by population growth. *L*

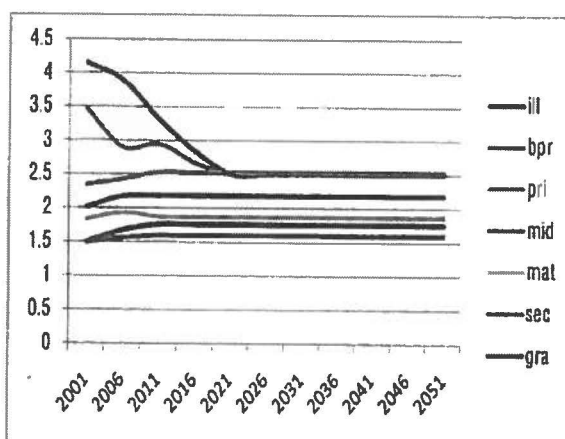
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Currently, however, education access and literacy levels within India continue to lag behind. Research has discovered that staggeringly more than 50% of Indian children drop out of school at primary level.<sup>29</sup> Therefore, especially taking into account the above data highlighting the relationship between the years spent in school and fertility rates it means that a significant proportion of Indian children are not staying in school long enough to be able to have the education levels where their education would result in decreases in the fertility rate. Furthermore, a report titled: "Educational Change and its Impact on Fertility and Demographic Dividend of Future India" by A. Sengupta uses economic projections to predict future fertility rates. The diagram below from the report shows how at current levels of education India will not be able to achieve below replacement level fertility rates till 2041. *L*

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<sup>29</sup> The impact of education on economic growth: the case of India, S Kobzev Kolásková, 2018

**Figure- 2: Trends of projected TFR across all educational groups in India, during 2000-2051**



30

The replacement level of fertility is when a population: "exactly replaces itself from one generation to the next" and is generally assumed to be the average of 2.1 children per women. <sup>31</sup> With the report's projections being that with current educational levels, India will not reach a fertility rate below replacement level till as late as 2041 this means that until 2041 India's population will continue to grow which will subsequently worsen the overpopulation crisis of India. The research discussed earlier in the essay showing how by 2050 the demand for important resources such as water would increase by 50% in comparison to the demand in 2000 show how with current education levels the fertility rate below replacement level in 2041 is far too late. This is because, by 2041 the effects of overpopulation will have occurred leading to significant shortages of resources and

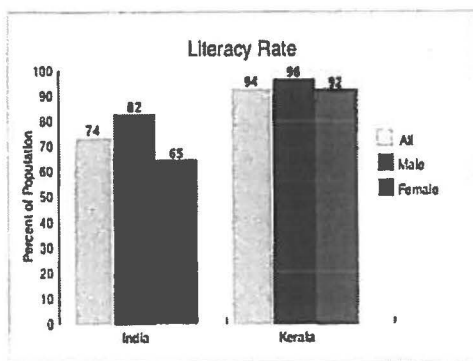
<sup>30</sup> "Educational Change and its Impact on Fertility and Demographic Dividend of Future India" by A. Sengupta

<sup>31</sup> <https://www.wri.org/publication/achieving-replacement-level-fertility>

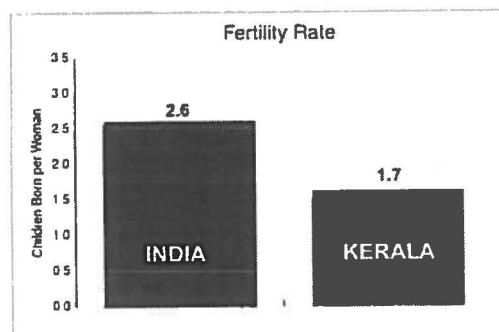
1 mark for in-depth, substantive analytical or evaluative comment - synthesising previous analysis

hindering all developmental efforts. Therefore, in order to ensure that developmental efforts are not hindered by overpopulation there has to be a greater emphasis on education and the subsequent benefits in alleviating population growth. In the long run, if the access and quality of education does not improve then this will result in the long term detrimental impacts of overpopulation that an increase in education would have helped to alleviate.

Furthermore, the sheer difference between Kerala and the rest of India in terms of education levels and fertility rates is indicative of the importance education has in decreasing fertility rates. Research from the Population Connection organisation clearly illustrates the distinctions between Kerala and the rest of India from the latest census effectively through the use of diagrams.<sup>32</sup>



Source: Census of India, 2011



Source: Census of India, 2011

The diagrams clearly illustrate how Kerala has very different fertility and literacy rates compared to the rest of India. Kerala's fertility rate is already below the fertility

<sup>32</sup>

[https://webcache.googleusercontent.com/search?q=cache:TIVGU3mwJDkJ:https://populationeducation.org/sites/default/files/kerala\\_a\\_model\\_case\\_for\\_education.pdf+&cd=1&hl=en&ct=clnk&gl=uk&client=firefox-b-d](https://webcache.googleusercontent.com/search?q=cache:TIVGU3mwJDkJ:https://populationeducation.org/sites/default/files/kerala_a_model_case_for_education.pdf+&cd=1&hl=en&ct=clnk&gl=uk&client=firefox-b-d)



replacement level of 2.1 discussed above which India is set to achieve in 2041. The large contributor to the sheer difference in fertility rates is largely due to the sheer difference in female education levels with the average Indian female literacy rate being 65% whereas the Kerala state literacy rate is 92% showing a significant increase in female literacy within Kerala compared to the rest of the country. This evidence is important because it shows how India has the potential to be able to curb its population growth once education levels increase throughout the nation. This would contribute to development of the nation due to less pressure of the population increasing rapidly and there would be less of a shortage of goods and services arising due to population growth. Pressure on infrastructure and living standards would further decrease at the same time as educational improvements. This is mirrored by Kerala's life expectancy being 74 compared to the Indian average of 64. The vast difference in life expectancy indicates how with an increase in education and subsequent decrease in fertility rates it has a significant long term improvement in living standards. The most striking piece of evidence is the sheer 10 year difference in regards to life expectancy between the rest of India and Kerala.

However, one must take into account that a significant factor which contributes to a decrease in fertility rates within a nation is the decrease in child mortality. In countries with higher child mortality rates there is also usually a mirroring with higher fertility rates as families wish to "ensure against the loss of children". Data from the "Our World in Data" organisation shows the clear relationship between child mortality rates decreasing and decreases in the fertility rate.<sup>33</sup>

<sup>33</sup> <https://ourworldindata.org/fertility-rate>

0 marks for interpreting relevant supporting graph - as the maximum of 2 marks has been reached

1 mark for in-depth, substantive, analytical or evaluative comment - building an argument in relation to long and short term

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1 mark for in-depth, substantive, analytical or evaluative comment - overarching synthesis of health, education and fertility strands

due to the relationship between child mortality and fertility rates being "mutually interdependent" it means that "estimating the impact of one on the other is not straightforward."<sup>35</sup> Despite, decreasing child mortality having an impact on decreasing fertility rates Murthi and Dreze go on to argue that the link between female literacy and fertility rates is "extremely robust".<sup>36</sup> Therefore, indicating that despite other factors contributing to a decrease in fertility rates the relationship between increases in female education and decreasing fertility rates is evident. Ultimately, therefore, education can be seen to have a significant impact in decreasing fertility rates, decreasing the population growth which hinders development. *L*

1 mark for relevant, supported or justified conclusion

All in all, as economist Wolfgang Lutz argues : "Education leads to lower birth rates and slows population growth"<sup>37</sup> Therefore, with all the evidence showing how female education in the long run has the ability to decrease fertility rates and decrease population growth it is very clear that education is key to the development of India because with the increase in access to education then developmental efforts will no longer be lost to resource shortage and nullified by overpopulation. *L*

<sup>35</sup> Fertility, Education and Development", Jean Dreze and Mamta Murti, January 2000

<sup>36</sup> Ibid

<sup>37</sup> <https://www.weforum.org/agenda/2015/07/how-education-can-moderate-population-growth/>



## Conclusion

In conclusion there is key evidence and research throughout this investigation which indicates that education is key to the economic development of India. Research from the OECD report shows the clear relationship between increased education contributing towards economic growth due to increased skills within an economy. The relationship was evident in the diagram showing annual growth against test scores between 1950 and 2000. This relationship of education leading to inclusive economic growth in turn results in economic development because if workers are more skilled they are able to work in more skilled sectors of the economy, meaning that people are likely to work in sectors with higher wages and have subsequent higher standards of living. Furthermore, with education India's skill shortage will be tackled in sectors such as civil engineering and architecture contributing to long term development. However, Professor Simon McGrath argues that in the real world one must take into account the influence of other factors such as there needing to be jobs to fill in the first place for the newly educated. Moreover, the relationship between education and development is evident due to research showing the relationship between education, overpopulation and economic development. Research from Murthi and Dreze clearly showed the relationship between increasing female education and decreasing the fertility rate. This is evident in the comparison between the Indian average literacy and fertility rates in comparison to the Kerala average. The decrease in the fertility rate helps decrease population growth which would hinder development due to scarcity of resources. However, despite the seemingly clear link one must take into account the prevalence of other factors such as decreases to child mortality rate decreasing fertility rates rather than education. All in all, education has a central role in the economic development of India because it creates inclusive economic growth and subsequent development. Yet, despite the clear relationship one must acknowledge other factors needed in order for a country to fully develop. However, on the basis that other factors are needed education can still be considered to be the most important factor in the development of India due to its clear relationship between inclusive economic growth and decreasing the rapid population growth of the nation.

1 mark for relevant, supported or justified conclusion

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<https://www.researchgate.net/publication/323461673> The Impact of Education on Economic Growth The Case of India  
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