

# Different Ways Countries Are Improving Education

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#### ABSTRACT

Research shows that despite education improving as a whole, it is not yet satisfactory globally. The aim of this research is to analyse methods that can help improve education, their benefits and nations that are executing them well. Countries, especially developing ones, can learn from these example countries and implement similar tactics in order to impact education positively. Information has majorly been gathered from secondary sources; most of them acquiring their facts from people with first-hand experience. The study proves how various ways are not only beneficial but also achievable; from how improving school lunch programs in Japan helps students learn about nutrition at an early age to grades improving due to banning of phone use in French schools. Overall benefits of these methods include increased enrolment, improved grades, better digital preparation among others. Thus, these methods should be emulated; aside from their advantages outweighing the disadvantages and risks, they have produced great aftermath results and been effective in the countries practising them.

Keywords: educational environment, economy, lunch programs, technology.

Subject: Education

#### INTRODUCTION

Making education a priority benefits a region in many ways. Education undoubtedly transforms lives. Not only does it give people hope, confidence and dignity but also equips them with knowledge and skills which can in turn be used to tackle issues like poverty and disease. For instance, about 700,000 HIV cases could be prevented annually if all children had a primary education. Also, about 3.5 million child deaths between 2050 and 2060 can be prevented if women are educated, besides reducing chances of children dying before the age of five. Education also promotes economic growth. This can be proved by the fact that a 12% decline in global poverty could be achieved, according to UNESCO (2022), if all students in low-income countries learned basic reading skills. It can be concluded that money invested in education can give positive results in our economy. When education is prioritised, a more peaceful and sustainable future is formed. Education is a key channel for tolerance, better understanding and respect for one another by influencing people's behaviours and attitudes. The risk of conflict is reduced from around 14% to 10% in a nation that has 10% more of its youths in schools. If a country aims to prioritise education, it must invest in educating everyone, despite their backgrounds.

Kenya's tremendous investments in education have led to progress; making its educational achievements among the highest in Africa. The East African country's milestones range from introduction of free primary and secondary education, to executing a 100 percent-transition policy that makes sure all primary school students attend high school. In the government's efforts to improve their education, it is implementing a new program, the Competency Based Curriculum, that has different approaches to learning; where teachers focus more on students gaining new skills instead of just cramming content for major examinations. As of their 2022/3 budget, education received the biggest share amounting to about \$4.54 billion. This will help in various aspects including integration of ICT in public schools and hiring more teachers. As a result, performance in numeracy and languages has improved in various stages.

#### METHODOLOGY

This research paper looks at various ways in which countries are improving their education. It also explains the significant benefits these methods have. The research process involved acquiring both quantitative and qualitative sources of information ranging from statistics to testimonials. In addition, the sources were highly credible, for



instance credible news outlets with global influence and multinational organisations. A high percentage of the content, including the figures, was derived from secondary data sources like academic articles and industry reports.

#### **Reducing cost of education**

The act of building more schools has proven not to always increase enrolment as it usually just diverts students from other schools. However, making education more affordable has proven to not only be less expensive but also have some benefits. In many poor families, these costs can be a large fraction of household income forcing parents to withdraw their children from school and make them go to work.

In Uganda, elimination of school tuition has increased enrolment by approximately 60%. Other strategies that have been implemented by other countries to help lower education costs include providing affordable tutors for children in poor economic backgrounds and government vouchers to enable poor children to attend private secondary schools. Paying low-income mothers' stipends if their daughters attend school regularly is an effective way to reduce costs and increase enrolment too.

Having the fourth largest GDP globally, Germany is the largest economy to make higher education free. Keeping in mind that costs should not hinder a child's education, studies at public institutions are almost completely free. This includes compulsory (age 6-15), upper secondary and tertiary education. Also, local education authorities cap tuition fees of some private schools. In addition, there is state funding for education available to anyone with residency status in Germany aged under 35 who is unable to meet costs present. This funding, however, is only available for grade 10 study and above in secondary schools, higher vocational schools and universities. Amounts awarded vary but are normally provided half as a grant and half as an interest-free loan; household income and finances are considered in eligibility. Some private and international schools also offer highly competitive scholarships mostly for post-compulsory study. Zero percent of students graduate with long-term federal student debt.



Figure 1: Examples of institutions offering free higher education in 5 different European countries. Source: Y AXIS Blog (2020)

#### Creating a calm educational environment

Over the years, cases of deteriorating mental health for students have increased. Stress is known to negatively affect your body and brain, inhibiting learning. This highlights the importance of a calm learning environment; which helps students concentrate better. Besides that, having a relaxed educational environment can factor in other benefits like improved memory, mental clarity, reduced tension, and improved creativity.

Finland's education system is more relaxed unlike most of its counterparts. Students have compulsory education for nine years, starting at age 7. In the developed world, they have the least amount of class hours per week; a school day starts from around 9am and ends at 2pm. This helps in students having less strenuous days; posing less risks to their health and well-being. Intervals of about 15 minutes are spread throughout the day, a chance for students and teachers to have a relaxing break; teachers' rooms are available across Finnish schools where teachers can not only prepare for the day but also relax and socialise. Moreover, Finnish students have the least amount of homework and



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outside work compared to their fellow students worldwide according to the OECD; spending less than an hour per night working on school tasks. This gives students a chance to not obsess over grades but focus on learning and growing into a responsible human being. Furthermore, there are no standardised tests and test scores are not prioritised. Instead, the Finnish education system focuses on creating a conducive learning environment. This results in students not bothered about cramming content for long hours in preparation of certain tests. The only exception is the National Matriculation Exam, that is done by students at the end of upper secondary school that helps in gaining admission to university. Also, there are no selective schools and few private schools; creating less competition among schools.



Figure 2: Results for a survey on learning environments by School Education Gateway. The figure represents the response to the statement: '*Ministries and regional/local authorities are not supporting schools enough to create an optimal physical environment for modern teaching and learning.*' Source: SchoolEducation Gateway (2019, Nov)

#### Improving school lunch programs

School lunch is vital to students' wellbeing and health and need to ensure students are provided with adequate nutrition to facilitate smooth learning; especially for low-income students. Improving school lunch programs to include healthy options can contribute to reducing obesity rates, food insecurity and poor health. These programs, when made affordable and more accessible, can contribute to increasing enrolment too, as financially struggling families can use less money in providing education to children.

Japan's school lunch program is not just about filling stomachs; aside from being packed with nutritious meals, the school lunches are a crucial aspect of a child's early education. The school lunch is referred to as *shokiuku* meaning 'food and nutrition education'. Children are taught the importance of nutritious foods and healthy eating habits at a young age. While the government has an allocated budget for school lunches, parents pay from about \$2.50 to \$4.50 per day for school meals; if one cannot afford, free and reduced lunch programs are provided. This acts as a great source of nutritious meal at home; one of the program's goals. To ensure the meals are nutritious and healthy, school menus are provided by nutritionists and meals are prepared with fresh foods. Children serve one another and clean up after themselves, nurturing a culture of self-sufficiency. Lunchtime is not hurried and students are let to sit and



eat. The program has contributed to Japan's low obesity rates and high life expectancy rates. Additionally, it has improved people's quality of life, alongside reducing the cases of children skipping breakfast.



Figure 3: Test Score Effect of Healthy Lunch Vendors Source: Researchers' calculations using California Department of Education Data (2022)

# **Embracing Technology In Education**

Technology is steadily growing and is now all around us. To start off, technology simplifies access to educational materials. Since many students are becoming more reliant on technology, it is said that it can be used to engage them positively and aid in learning. Currently, it is easy to find educational resources on the internet which are used in schools for numerous reasons. It is now common, for example, for teachers to assign tasks to students online; this helps in saving time because one can get instant feedback in tasks like online quizzes. Students can flexibly contact their teachers through email anywhere at any time of the day too.

Touching more on easily accessible information found online, technology helped students in preparing for their future career paths by gaining qualifications. Many institutes are offering online courses that can be learned online; some at an even lower fee. On the other hand, for those who still attend university in person, some lectures are usually recorded in case a student was not able to attend. Learning experiences have also been made better by integrating technology. With students now getting used to the internet and social media, some teachers have used this to engage students more in ways like forming study groups in social media. Educational technology has also significantly impacted education positively by taking into account the needs of various students and making learning smoother. Innovations like *Kahoot* have truly made learning more fun and interactive.

With numerous innovations emerging, Israel is setting an example in education technology (edtech), changing the way students learn. Accumulating both hard and soft skills that range from coding to decision making, edtech is solving the rising demand of improved educational methods. These technologies result in better teaching and learning experiences. Additionally, many start-ups are producing technologies that will aid in facilitating smooth learning for all types of students. Recognising the importance of STEM in schools globally, some of these start-ups are also creating tools centred around it. Israeli start-ups in the education sector include: *Orcam* that helps disabled



students, *SpeakingPal* aiming to turn devices into personal English tutors, *EZCheck.me* that wants to simplify attendance checking in institutions among others.



Figure 4: How Technology is Changing Education? The Journey from Whiteboard to Keyboard. Source: APOGAEIS.

#### Managing phone use in school grounds

Even though the use of phones in school proves how students are becoming more digitally literate, it poses some risks that can affect their studies and well-being as a whole. Students who frequently use their phones are prone to having a passive mind, leading to lack of attention and focus. Phone use also results in poor grades and this is proven by a report published by the Centre for Economic Performance at the London School of Economics that found test scores of teenagers aged at least 16 improving after schools banned phone use. Cyberbullying is also a major negative effect of students using phones, especially through social media. This can then lead to cases of drug use, depression, suicide and increased aggression.

In 2018, France officiated the ban of using smartphones and other internet-connected devices in school grounds. Although a similar law was in place in 2010 where phones were not allowed in teaching activities, this one extends to all school activities. Students can still bring their devices to school, though, but they should be kept out of sight. If a student is found using one, the gadget will be confiscated for a certain period. The law applies to students under the age of about 15; individual schools make their own rules regarding the issue for students attending the last three years of high school. Through this change, students have a 'legal right to disconnect from digital pressures' during school days. President Macron's education minister highlighted how this would be an opportunity to make people reflect on their phone use in society. In spite of all that, few exceptions were made; phones could be used if



assigned by the teacher or by children with special needs for extracurriculars and pedagogical uses. Inarguably, this law has led to students socialising more due to them not being glued to their screens.



### Figure 5: How teachers view cell phone usage in the classroom. Source: SlickText (2022)

# Having a strong Mathematical culture

In general, cultivating a strong culture in Mathematics has proved not to be in vain as it poses numerous advantages. Maths is known to benefit the brain by enhancing analytical thinking and decision making besides developing the ability to think. Making up a large part of our future lives, Maths is essential in a world where constantly changing developments and innovations are taking place; considering how the world is becoming more digital over time, maths will be of bigger importance in the future.

China produces among the best mathematics results in PISA tests globally. Students in the country start learning maths facts early; for instance, studying multiplication at about seven years old. The cultural traditions of maths education make people believe that the best way to learn is routine practice. This is reflected by how students spend more than fifteen hours a week on maths practice both in and out of the classroom. The approach used in teaching mathematics is named the 'mastery approach' and is being adopted gradually by schools in other countries too. Under this approach, students learn a certain concept before moving on to more difficult ones. In addition, all students perform the same tasks simultaneously before understanding and moving to the next concept together; students are not broken into different clusters depending on intellectual abilities and assigned work with varied difficulty levels. After introducing a new topic, teachers use examples with different types of difficulty.

Chinese maths teachers also stress on using precise mathematical language; making a mistake in the required mathematical format leads to a reduction of marks in secondary school. Developing conceptual and procedural knowledge through rigorous practice is the goal of maths education in China. Students learn to understand numerical relationships alongside developing and proving their solutions to problems in front of the class; enabling them to apply previous knowledge to aid in learning new topics.

# CONCLUSION

Education is a fundamental aspect of life and there is always room for improvement. Improving it has clearly proven to garner remarkable outcomes. The discussed methods of improving ways can be used by governments and their education departments when implementing reforms. Non-governmental bodies that advocate for education related issues can also spread awareness while individual school managements apply those ways in their respective institutions.



#### REFERENCES

- [1]. Affordable Schools. *How Germany Made Higher Education Free*. Retrieved August 2022, from https://affordableschools.net/germany-free-education/
- [2]. Appel D. (2019, Nov 18). Japan's School Lunch Program Serves Nutritious Meals with Food Education. Hunter College New York City Food Policy Center. Retrieved from https://www.nycfoodpolicy.org/foodpolicy-snapshot-japans-school-lunchprogram/#:s-tayt=How% 201t% 20works% 3 A % 20The% 20school balanced% 2C% 20healthy% 20meal% 20e

program/#:~:text=How%20it%20works%3A%20The%20school,balanced%2C%20healthy%20meal%20e very%20day.

- [3]. Barksdale A. (2016, May 12). *Israel is at the forefront of education technology*. The Times of Israel. Retrieved from https://blogs.timesofisrael.com/israel-is-at-the-forefront-of-educahttps://docs.google.com/document/d/1fIZdODUVsrPEhu6cGhtrZwdpW4sdNzspOGbDaaQ9hOk/edi ttion-technology/
- [4]. Be Relaxed. *Why Is Relaxation Important In Schools*. Retrieved August 2022, from https://www.berelaxed.co.uk/relax-kids-in-schools/why-is-relaxation-important-in-schools/#:~:text=Sharpens%20concentration%20and%20clarity%2C%20promotes,tension%2C%20develo ps%20imagination%20and%20creativity.
- [5]. Borgen Project. (2016, Nov 7). Top Five Reasons For Prioritizing Global Education. Retrieved from https://borgenproject.org/prioritizing-global-education/#:~:text=Why%20is%20prioritizing%20global%20education,could%20be%20prevented%20eac h%20year
- [6]. Borgen Magazine. (2017) *Five Ways to Improve Education in Developing Countries*. Retrieved August 2022, from https://www.borgenmagazine.com/education-in-developing-countries/
- [7]. Buswell G. (2022). *The German education system*. Expatica. Retrieved from https://www.expatica.com/de/education/children-education/education-in-germany-101611/#:~:text=Full%2Dtime%20schooling%20is%20compulsory,paying%20private%20or%20international%20 schools.
- [8]. Chrisafis A. (2018, Jun 7). French school students to be banned from using mobile phones. The Guardian. Retrieved from https://www.theguardian.com/world/2018/jun/07/french-school-students-to-be-banned-from-using-mobile-phones
- [9]. Colagrossi M. (2018, Sep 18). *10 reasons why Finland's education system is the best in the world*. World Economic Forum. Retrieved from https://www.weforum.org/agenda/2018/09/10-reasons-why-finlands-education-system-is-the-best-in-the-world
- [10]. Copenhagen Consensus. Lowering the Price of Schooling and Improving Girls' Schooling. Retrieved August 2022, from https://www.copenhagenconsensus.com/guide-giving/lowering-price-schooling-and-improving-girls%E2%80%99-schooling
- [11]. Dahl D. *The Impact of Stress on Learning*. Stress Free Kids. Retrieved August 2022, fromhttps://stressfreekids.com/5857/impact-of-stress-on-learning/
- [12]. Expatrio. *German Education System*. Retrieved August 2022, from https://www.expatrio.com/studying-germany/german-education-system
- [13]. Food Research and Action Centre. Benefits of School Lunch. Retrieved August 2022 fromhttps://frac.org/programs/national-school-lunch-program/benefits-schoollunch#:~:text=Research%20shows%20that%20receiving%20free,especially%20for%20fruits%20and%20 vegetables.
- [14]. IAMEXPAT. *Primary and secondary education in Germany*. Retrieved August 2022, from https://www.iamexpat.de/education/primary-secondary-education
- [15]. InnerDrive. *What Can We Learn from Other Countries' Education Systems?* Retrieved August 2022, from https://blog.innerdrive.co.uk/learn-from-other-countries-education-system
- [16]. Israel Economic Missions to the USA. (2022, May 25). *Israeli Innovation is Shaping the Future of Educational Technology*. Retrieved from https://itrade.gov.il/usa/the-future-of-educational-technology-in-israel/
- [17]. Jackson A. (2016, July 24). *Top-performing Asian countries use the 'mastery approach' to teach math in schools and now it's spreading*. Business Insider. Retrieved from https://www.businessinsider.com/chinese-mastery-approach-for-math-2016-7?r=US&IR=T
- [18]. Kagia R. (2021, June 22). Funding the future: Delivering on the promise of education by prioritizing, protecting and increasing domestic budgets. Global Partnership. Retrieved from https://www.globalpartnership.org/blog/funding-future-delivering-promise-education-prioritizing-protecting-and-increasing-domestic
- [19]. Kit for Kids. Creating Calm in your Learning Space. Retrieved August 2022, from https://www.kitforkids.com/news-room/creating-calm-in-your-learning-



space/#:~:text=Creating%20a%20calming%20environment%20helps,their%20behaviour%20within%20th e%20classroom.

- [20]. Korteman J. (2022, Feb 2). Japanese School Lunch: Why it's Awesome and One Reason it's Not (with photos). Retrieved from https://www.japanesefoodguide.com/japanese-school-lunch/
- [21]. Ledsom A. (2019, Aug 30). The Mobile Phone Ban in French Schools, One Year On. Would It Work Elsewhere? Forbes. Retrieved from https://www.forbes.com/sites/alexledsom/2019/08/30/the-mobilephone-ban-in-french-schools-one-year-on-would-it-work-elsewhere/?sh=2f96722b5e70
- [22]. LifeHacks. 13 Reasons *Why Math is Important*. Retrieved August 2022, from https://lifehacks.io/reasons-why-math-is-important/
- [23]. Loveless B. (2022, March 15). 27 Surprising Finnish Education System Facts and Statistics. Education Corner. Retrieved from https://www.educationcorner.com/finland-education-system/
- [24]. McCarthy J. (2021, Nov 15). 5 Ways School Meals Benefit Children and Transform Communities. Global Citizen. Retrieved from https://www.globalcitizen.org/en/content/school-meals-benefits-students-wfp/
- [25]. Online Business School. *Importance of Technology in Education*. Retrieved August 2022, from https://www.onlinebusinessschool.com/importance-of-technology-in-education/
- [26]. Oxford Royale. 6 Innovative Ways Different Countries and Schools Have Dealt with Common Student Problems. Retrieved June 2022, from https://www.oxford-royale.com/articles/international-solutions-student-problems/
- [27]. Smith R. (2018, July 31). *France bans smartphones from schools*. CNN. Retrieved from https://edition.cnn.com/2018/07/31/europe/france-smartphones-school-ban-intl/index.html
- [28]. United Nations. (2013, Jan 25). 'Education Must Be a Top Priority' of Global Political, Development Agendas, Says Secretary-General, to Education Session in Davos. Retrieved from https://press.un.org/en/2013/sgsm14784.doc.htm#:~:text=It%20equips%20them%20with%20knowledge,r eturns%20for%20our%20global%20economy.
- [29]. University of the People. *The Growing Importance of Technology in Education*. Retrieved August 2022, from https://www.uopeople.edu/blog/the-growing-importance-of-technology-in-education/
- [30]. Wanjala M. (2022, April 12). *Why education sector got biggest budget share of Sh544 billion*. The Star. Retrieved from https://www.the-star.co.ke/news/2022-04-12-why-education-sector-got-biggest-budget-share-of-sh544-billion/
- [31]. Wei K. (2014, Mar 25). *Explainer: what makes Chinese maths lessons so good?* The Conversation. Retrieved from https://theconversation.com/explainer-what-makes-chinese-maths-lessons-so-good-24380
- [32]. Weller C. (2017, Mar 27). Japan's mouthwatering school lunch program is a model for the rest of the world. Business Insider. Retrieved from https://www.businessinsider.com/japans-amazing-school-lunch-program-2017-3?r=US&IR=T
- [33]. World Bank. (2022, June 7). Kenya Economic Update: Lessons from Kenya's Education Reforms. Retrieved from https://www.worldbank.org/en/country/kenya/publication/lessons-from-kenya-s-education-reforms