12.3.2 Lesson 11

Introduction

In this final lesson of the unit, the End-of-Unit Assessment, students finalize their researchbased argument papers by editing, polishing, and rewriting as necessary. Students are assessed on how their final draft aligns to the criteria of the 12.3.2 Rubric and Checklist. The final draft should present a precise claim that is supported by relevant and sufficient evidence and valid reasoning. The draft should be well organized and distinguish claims from alternate and opposing claims. It should use transitional language that clearly links the major sections of the text and clarifies relationships among the claims, counterclaims, evidence, and reasoning. Finally, the draft should demonstrate control of the conventions of written language and maintain a formal style and objective tone.

For homework, students prepare for their presentation in the Module Performance Assessment by listening to and evaluating two podcasts using the 12.3 Speaking and Listening Rubric to evaluate the speaker's presentation skills. Additionally, students complete a final multimedia journal entry, responding to the following prompt: How did the process of researching an issue, constructing an argument, and crafting a research-based argument paper influence your perspective on your issue? Discuss any surprises you encountered or unexpected discoveries you made along the way.



Standards



Assessed St	andard(s)	
W.11-12.1. a-e	 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence. Explore and inquire into areas of interest to formulate an argument. a. Introduce precise, knowledgeable claim(s), establish the significance of the claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that logically sequences claim(s), counterclaims, reasons, and evidence. b. Develop claim(s) and counterclaims fairly and thoroughly, supplying the most relevant evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases. c. Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and counterclaims. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. e. Provide a concluding statement or section that follows from and supports 	
L.11-12.1	the argument presented. Demonstrate command of the conventions of standard English grammar and	
L.11-12.2	usage when writing or speaking.Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.	
L.11-12.3	Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.	
Addressed S	Standard(s)	
W.11-12.4	Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.	
W.11-12.8	Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.	



W.11-12.9	Draw evidence from literary or informational texts to support analysis, reflection, and research.	
SL.11-12.4	Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks.	
SL.11-12.5	Make strategic use of digital media (e.g., textual, graphical, audio, visual, and interactive elements) in presentations to enhance understanding of findings, reasoning, and evidence and to add interest.	
SL.11-12.6	Adapt speech to a variety of contexts and tasks, demonstrating a command of formal English when indicated or appropriate.	
L. 11-12.1.b	 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. b. Resolve issues of complex or contested usage, consulting references (e.g., <i>Merriam-Webster's Dictionary of English Usage, Garner's Modern American Usage</i>) as needed. 	
L. 11-12.2.a,b	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.a. Observe hyphenation conventions.b. Spell correctly.	
L. 11-12.3.a	 Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening. a. Vary syntax for effect, consulting references (e.g., Tufte's <i>Artful Sentences</i>) for guidance as needed; apply an understanding of syntax to the study of complex texts when reading. 	
L.11-12.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.	

Assessment



Assessment(s)

End-of-Unit Assessment: Student learning in this lesson is assessed via the research-based argument paper.

• The research-based argument paper is assessed using the 12.3.2 Rubric.

High Performance Response(s)

A High Performance Response should:

- Adhere to the criteria in the 12.3.2 Rubric and Checklist.
- See Sample Student Research-Based Argument Paper at the end of this lesson.



Vocabulary

Vocabulary to provide directly (will not include extended instruction)	
None.*	
Vocabulary to teach (may include direct word work and/or questions)	
None.*	
Additional vocabulary to support English Language Learners (to provide directly)	
• None.*	
Students should incorporate valouant academic and (ar demain specific vecabulary from 12.2.1 into their	

*Students should incorporate relevant academic and/or domain-specific vocabulary from 12.3.1 into their research-based argument papers.

Lesson Agenda/Overview

Student-Facing Agenda	% of Lesson
Standards:	
 Standards: W.11-12.1.a-e, L.11-12.1, L.11-12.2, L.11-12.3, W.11-1 W.11-12.8, W.11-12.9, SL.11-12.4, SL.11-12.5, SL.11-12.6, L. 11-12.1.b, L.11-12.2.a,b, L.11-12.3.a, L.11-12.6 	12.4,
Learning Sequence:	
1. Introduction of Lesson Agenda	1. 5%
2. Homework Accountability	2. 10%
3. 12.3.2 End-of-Unit Assessment: Final Research-Based Argument Pa	aper 3. 80%
4. Closing	4. 5%

Materials

- Student copies of the 12.3.2 Rubric and Checklist (refer to 12.3.2 Lesson 1)
- Copies of the 12.3.2 End-of-Unit Assessment for each student
- Student copies of the 12.3 Speaking and Listening Rubric and Checklist (refer to 12.3.1 Lesson 3)



Learning Sequence

How to Use the Learning Sequence		
Symbo l	Type of Text & Interpretation of the Symbol	
10%	Percentage indicates the percentage of lesson time each activity should take.	
no symbol	Plain text indicates teacher action.	
	Bold text indicates questions for the teacher to ask students.	
	Italicized text indicates a vocabulary word.	
•	Indicates student action(s).	
ę	Indicates possible student response(s) to teacher questions.	
1	Indicates instructional notes for the teacher.	

Activity 1: Introduction of Lesson Agenda

Begin by reviewing the lesson agenda and assessed standards for this lesson: W.11-12.1.a-e, L. 11-12.1, L.11-12.2, and L.11-12.3. In this lesson, students complete the final drafts of their research-based argument papers to be evaluated for the 12.3.2 End-of-Unit Assessment. Students work independently and hand in their final papers at the end of class.

• Students look at the agenda.

Activity 2: Homework Accountability

Instruct students to take out their responses to the previous lesson's homework assignment. (Continue to implement revisions based on peer feedback. Additionally, read your drafts aloud to yourself or someone else to identify errors in syntax, grammar, or logic in order to prepare for the following lesson's End-of-Unit Assessment.) Ask student volunteers to briefly share one or two edits they made for homework based on the peer review session and to explain their decisions by referencing the corresponding checklist(s) in their 12.3.2 Rubric and Checklist.

- Students share one or two edits made for homework.
- Student responses vary by individual research paper and specific feedback received.

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10%

5%

80%

5%

Activity 3: 12.3.2 End-of-Unit Assessment: Final Research-Based Argument Paper

Provide students with the 12.3.2 End-of-Unit Assessment and instruct students to spend the remaining portion of the class completing the final draft of their research-based argument papers. Inform students that they may use their sources, notes, optional tools, all checklists and rubrics used in 12.3.2, and previous versions of their research-based argument papers with peer comments to guide the creation of the final draft. Advise students that they should use this time to edit, polish, and rewrite as they see fit, using all the skills they have learned over the course of 12.3.2.

Instruct students to review the components of W.11-12.4, which include producing clear, coherent writing that employs organization and style appropriate to the task, purpose, and audience. Remind students to keep these skills in mind as they finalize their paper. Additionally, remind students to apply correct punctuation, spelling, and capitalization while also using domain-specific vocabulary when finalizing their drafts (L.11-12.2.a,b, L.11-12.3.a, L.11-12.6). Students should also finalize their works cited page and format their paper according to MLA style. Remind students that the final draft will be assessed using the 12.3.2 Rubric. The draft will be assessed on its alignment to the conventions of an argument text, including reference to citations as well as proof that students developed an evidence-based central claim from research and supported it with sufficient evidence (W.11-12.8 and W. 11-12.9).

• Students work independently to finalize their research-based argument papers.

Activity 4: Closing

Display and distribute the homework assignment. For homework, instruct students to prepare for their presentations in the Module Performance Assessment by listening to the following podcasts: "How Not to Pitch a Billionaire" by Alex Blumberg at <u>http://gimletmedia.com/</u> (Google search terms: Gimlet, How Not to Pitch a Billionaire) and "Startups Are a Risky Business" by Alex Blumberg at <u>http://gimletmedia.com/</u> (Google search terms: Gimlet, Startups Are a Risky Business). Instruct students to listen to the first 6 minutes and 40 seconds of Episode 1: "How Not to Pitch a Billionaire" and the first 6 minutes of Episode 4: "Startups Are a Risky Business," and use the 12.3 Speaking and Listening Rubric and Checklist for standards SL.11-12.4, SL.11-12.5, and SL.11-12.6 to evaluate the speaker's presentation skills.

Additionally, instruct students to complete a final multimedia journal entry, responding to the following prompt:

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How did the process of researching an issue, constructing an argument, and crafting a research-based argument paper influence your perspective on your issue? Discuss any surprises you encountered or unexpected discoveries you made along the way (SL. 11-12.5).

- Completion of this homework is necessary to ensure students are prepared for the Module Performance Assessment.
 - Students follow along.

Homework

Prepare for your presentation in the Module Performance Assessment by listening to the following podcasts: "How Not to Pitch a Billionaire" by Alex Blumberg at http://gimletmedia.com/ (Google search terms: Gimlet, How Not to Pitch a Billionaire) and "Startups Are a Risky Business" by Alex Blumberg at http://gimletmedia.com/ (Google search terms: Gimlet, Startups Are a Risky Business) . Listen to the first 6 minutes and 40 seconds of Episode 1: "How Not to Pitch a Billionaire" and the first 6 minutes of Episode 4: "Startups Are a Risky Business," and use the 12.3 Speaking and Listening Rubric and Checklist for standards SL.11-12.4, SL.11-12.5, and SL.11-12.6 to evaluate the speaker's presentation skills.

Additionally, complete a final multimedia journal entry, responding to the following prompt:

How did the process of researching an issue, constructing an argument, and crafting a research-based argument paper influence your perspective on your issue? Discuss any surprises you encountered or unexpected discoveries you made along the way.



12.3.2 End-of-Unit Assessment

Final Research-Based Argument Paper

Your Task: Rely on the evidence you have gathered to write the final draft of your researchbased argument paper. In crafting your paper, include a precise central claim that is derived from your research and supported by relevant and sufficient evidence and valid reasoning. Be sure to use evidence from at least 5 of your identified sources, distinguishing claims from alternate and opposing claims. Use transitional language that clearly links the major sections of the text and clarifies relationships among the claims, counterclaims, evidence, and reasoning. Use your research materials, checklists and rubrics, and previous versions of your research-based argument paper with peer comments to guide the creation of your final draft.

Your writing will be assessed using the 12.3.2 Rubric.

Guidelines

Be sure to:

- Review your writing for alignment with all components of W.11-12.1.a-e.
- Establish your precise central claim about the problem-based question.
- Distinguish your central claim from alternate or opposing claims.
- Establish and organize the central claim, supporting claims, counterclaims, reasoning, and evidence.
- Develop supporting claims and counterclaims equally while explaining the strengths and limitations of both as well as anticipating the audience's knowledge level, concerns, values, and possible biases.
- Use relevant and sufficient evidence and valid reasoning from at least 5 of the sources to develop your argument without overreliance on one source.
- Identify the sources that you reference in MLA format.
- Organize your ideas in a cohesive and clear manner that clarifies the relationships between supporting claims and reasoning, between reasoning and evidence, between supporting claims and counterclaims, and uses varied syntax to create cohesion.
- Maintain a formal and objective style of writing while attending to the norms and conventions of argument writing.
- Follow the conventions of standard written English.
- Accurately use general academic and domain-specific words and phrases appropriate to the subject of the research-based argument paper.

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CCSS: W.11-12.1.a-e, L.11-12.1, L.11-12.2, L.11-12.3

Commentary on the task:

This task measures W.11-12.1.a-e because it demands that students:

- Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- Introduce precise claim(s), distinguish the claim(s) from alternate or opposing claims, and create an organization that establishes clear relationships among claim(s), counterclaims, reasons, and evidence.
- Develop claim(s) and counterclaims fairly, supplying evidence for each while pointing out the strengths and limitations of both in a manner that anticipates the audience's knowledge level, concerns, values, and possible biases.
- Use words, phrases, and clauses as well as varied syntax to link the major sections of the text, create cohesion, and clarify the relationships between claim(s) and reasons, between reasons and evidence, and between claim(s) and counterclaims.
- Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.
- Provide a concluding statement or section that follows from and supports the argument presented.

This task measures L.11-12.1 and L.11-12.2 because it demands that students:

- Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
- Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

This task measures L.11-12.3 because it demands that students:

• Understand how language functions in context and make effective choices for meaning and style.



Sample Student Research-Based Argument Paper

What Are the Best Ways for Developing Nations to Increase Economic Prosperity? Nearly half of the globe lives on less than \$2.50 per day, and "at least 80% of humanity lives on less than \$10 a day" (Shah). In the U.S. alone, nearly 50 million people live below the poverty line (Fessler). While people all over the globe suffer as a result of poverty from income disparity, it is particularly devastating for developing nations. We are thus faced with an important question: What is the best way for developing nations to increase their economic prosperity? It is a complex question with no single, one-size-fits-all solution, but the most effective way for developing nations to become more prosperous is by investing in human capital, providing quality education and technology to all citizens, regardless of gender or race.

Before describing the practical measures developing nations must take in order to work toward economic prosperity, one must first define several terms. What do we mean when we say *prosperity*? In fact, what do we mean by *developing*? To say *developing nation* is to claim that there exists a developed nation. It would be easy to take a very Eurocentric position and claim that the developing world is just what is outside the developed, predominantly Western world. This stance is problematic because it assumes that all countries and cultures want to develop in the way the Western world has. Still, *developing world* or *developing nation* is the most common term in the available research. For most, the term means a nation with a lower material standard of living, lower life expectancy, and weaker industrial base when compared to more industrialized nations (e.g., the U.S., United Kingdom, Japan, Canada, Denmark). Therefore, *prosperity*, for the purposes of this paper, refers to a material standard of living, poverty rate, life expectancy, and industrial base comparable to more industrialized nations.

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Next, what is *human capital*? Human capital is defined as the "accumulated stock of skills and talents ... [that] manifests itself in the educated and skilled workforce in the region" (Ogunade, 2). In other words, human capital is all of the "skills and talents" that workers in a society offer. Countries rely on a "skilled workforce" to increase their economic power and improve their standard of living.

Finally, what is *quality education*, and why is quality important? Most people think of formal classroom education as an example of a high-quality educational experience, but classroom education and high student attendance do not by themselves result in quality education. As UNESCO notes in its "Education for All Global Monitoring Report, 2005, "The quantity of children who participate is by definition a secondary consideration: merely filling spaces called 'schools' with children would not address even quantitative objectives if no real education occurred" (28-29). Many countries have technically provided access to formal education in the way of providing classrooms and teachers, but the quality of an education is much more than time spent in the classroom; a student could spend years in a classroom and, hypothetically, emerge with no real skills. Rather, "education is a set of processes and outcomes that are defined qualitatively" (28), and a high-quality education focuses on both cognitive and emotional growth:

[T]wo principal objectives are at stake: the first is to ensure the cognitive development of learners. The second emphasises the role of education in nurturing the creative and emotional growth of learners and in helping them to acquire values and attitudes for responsible citizenship. Finally, quality must pass the test of equity: an education system characterized by discrimination against any particular group is not fulfilling its mission. (Foreword)

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Additionally, a quality education is necessarily bound with equality and the absence of discrimination so that all people can develop cognitively as well as learn to become "responsible" (Foreword) citizens. Furthermore, quality education is not limited to the classroom, as Ogunade notes that the development of human capital "includes experience; practical learning that takes place on the job, as well as, non-traditional technical training regimens that enhance skill development" (3). Thus, quality education is an umbrella term for many different kinds of education that happen inside a classroom, on the job, or through other experiences, which contribute to the development of human capital.

For developing nations to prosper, men and women of all races must have equal access to quality education. For example, in many countries, women do not receive equal access to education, even though "[b]etter-educated women can undertake higher-value economic activity" (Ward et al. viii). Such economic activity requires higher caliber cognitive skills, so education is a necessary investment for countries that wish to increase their high-value economic activity. Furthermore, equity in education is strongly connected to the prosperity of a country. "With the exceptions of resource-rich Oman, Bahrain and Saudi Arabia, no country has achieved both GDP per capita of over \$10,000 and a ratio of girls to boys in primary education of less than 90 per cent" (viii). However, the resource-rich countries of Oman, Bahrain, and Saudi Arabia have wealth based on resources rather than an investment in educational equity. The point still stands, though, that investment in quality education consistently benefits economies.

Equal access to quality education results in wealth not only for countries as a whole, but for the individuals who live in these countries. When people have access to quality education, they become potential investors in the market who can develop capital of their own. This leads to more competition within and between industries: "Product markets are



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more competitive if all would-be entrepreneurs can use their talents" (Ward et al. ix). Competition is a motivator, so the more people use their talents within a specific industry, the harder people will work in the industry to be able to compete. Competition and hard work will also result in more reliable monetary return, which in turn incentivizes individual and shared investment: "A more productive workforce, through greater equality in employment and education, increases expected rates of return, which in turn generates a modest increase investment and promotes growth" (ix).

If many people in a nation are applying their skills to compete with one another, and if investment is attractive because returns are more likely, the country will be prosperous, which means that more individuals will have more money for investment. Thus, education creates a positive feedback loop: people become educated, refine their talents, compete with one another, attract investors, increase domestic prosperity, create more wealth at the individual level, become educated potential investors themselves, and in turn incentivize education and the development of talent to perpetuate the virtuous cycle. Countries must invest in equal quality education for *everyone* in a society, so that there is more quality human capital that contributes to economic prosperity.

This wealth-generating competition depends as much on the free flow of information as it does on skilled human capital. Jared Diamond points out in *Guns, Germs, and Steel*: "you want your country, industry, industrial belt, or company to be broken up into groups that compete with one another while maintaining relatively free communication" (444). A developing nation must also seek out communication to foster productive competition within the nation and technology plays a vital role. In order for communication to take place on a larger scale and contribute to economic growth, all citizens must have access to technology. In developing nations, "[d]eploying broadband networks at the community and municipal

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levels has become an important factor in allowing local businesses to grow and remain competitive" (Qiang et al. 38). The Internet provides vast opportunities for communication, and therefore fosters larger-scale competition among all people of a nation.

Broadband Internet access has also helped individual workers in developing nations "acquire skills (increasing their marketability as workers) and develop social networks through broadband-enabled Web applications, facilitating peer-to-peer communities and their integration with the economy" (Qiang et al. 36). In this way, increasing access to high-speed Internet is not only a supplement to quality education in the classroom; it becomes a source of education itself, offering vital social interaction between all citizens of a nation regardless of gender or race. The impact of broadband access extends even into very rural, low-income communities. For example, in India, some farming villages are "using a common portal that links multimedia personal computers by satellite" (40). The computers afford farmers access to information about the weather forecast, crop prices, nearby markets, and the latest sowing techniques. Qiang et al. also note that "these improvements have resulted in productivity gains for the farmers" (40). This example highlights that broadband Internet technology is stimulating developing economies from all angles—from inside the classroom, in the living room, in the office, and on the farm.

In addition to the Internet, other technology solutions can help developing countries generate wealth. Countries can "improve ... quality of life by investing in labour-saving technology" (Ward et al. 44). If technology can reduce the number of people doing manual labor, more people can engage in high-caliber, efficient economic activity, assuming there is an educational infrastructure to support them. Many developing countries have already instituted laborsaving technologies, but unfortunately, "a large literature shows that men have been the primary adopters" of these technologies, (Gill et al. 2). Many women are

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employed in agriculture in developing countries, making this a missed opportunity as "women continue to use traditional, more labor-intensive methods, undermining their agricultural productivity" (2). If women were freed from the burden of manual labor to the extent that men are, they would have a higher capacity for more high-value economic activity. As Revenga notes, "If women farmers have the same access as men to productive resources ... agricultural output in developing countries could increase by as much as 2.5 to 4 percent" (41). Thus, for technology to be harnessed most effectively, like quality education, it must be made equally available to all people.

Some scholars and policymakers argue that, although education and technology are important in the development of a more robust economy, they are not the most important pieces in this complicated puzzle. After all, in order for nations to make these types of investments in the first place, there must be some amount of foundational stability and reliable governance. United Nations *Millennium Projector* director Jeffrey Sachs and a group of other scholars insist, "Sometimes the problem is poor governance, marked by corruption, poor economic policy choices, and denial of human rights" (29). Economic development fails if a government cannot uphold its own rule of law or even begin to institute its ideal policies in the first place.

Furthermore, in the examples above, the potential benefits of education and technology depend on equality for all groups. As Sachs, et al. state, "In many places, access to public goods and services is restricted for certain groups. Minority groups, for their language, religion, or race, suffer discrimination at the hands of more powerful groups" (31). If there is not foundational equality in the first place, such as a constitution declaring all citizens equal and a legal infrastructure to uphold that law, all the benefits of instituting

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education and technology will be limited to the privileged and remain ultimately ineffective on a large economic scale.

Other scholars argue that developing nations are not able to create the infrastructure necessary for education and technology. Some countries are stuck in "a poverty trap, with local and national economies too poor to make the needed investments" (29). If a country is too poor to build and maintain solid educational and technological infrastructure, these items cannot be made a priority in economic development. In addition, the opportunity costs are high for having people in school rather than paid work. For example, there are a number of challenges to educating children in a rural impoverished area. In such areas, "[c]hildren are "economic assets" on the farm, and many of them, especially girls, do not attend school because they are home performing household work" (32). Thus, it is not an investment to send children to school; it is a direct, material loss of income with little chance of payoff if the country is not ready to employ those who do attend school. Hypothetically, a girl could attend school, study, and gain a formal education. Meanwhile, she will have missed all opportunities to gain practical knowledge on the farm. She is likely to be unemployed with an education that means nothing in a struggling rural economy. No amount of formal education or Internet access would solve her problem.

Others may argue that good health comes before education and technology. In order to invest in human capital through education and technology, the humans themselves must be healthy. In very poor countries, "[l]ife expectancy is less than 50 years (as opposed to 80 years in high-income countries), and child mortality is 100 per 1,000 live births or higher ... Infectious diseases are rife," (Sachs et al. 33). How can people begin to take advantage of a quality education system if they are suffering from disease? This line of reasoning leads one to

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the conclusion that investing in human capital through equal and affordable healthcare is more important or effective than education, insofar as able minds rely on able bodies.

Thus, it is argued, that without proper governance, legal infrastructure, a baseline amount of wealth, and basic healthcare needs met, a suffering population will not benefit from the luxuries of the classroom or technology. To end this poverty trap, a country must

> raise the economy's capital stock—in infrastructure, human capital, and public administration—to the point where the downward spiral ends and selfsustaining economic growth takes over. This requires a "big push" of basic investments ... in key infrastructure (roads, electricity, ports, water and sanitation, accessible land for affordable housing, environmental management), human capital (nutrition, disease control . . .) and public administration. (39)

These are all valid concerns. Indeed, it seems as if meeting developing nation's basic necessities is more important than investing in human capital through quality education and technology. It is important, however, to avoid equating foundational with most important or most effective. Although basic necessities may need to come first before education and technology, it is not necessarily true that basic necessities are more important or pivotal in solving the poverty problem in developing nations. What comes first in a sequence of events is not necessarily more important than what comes after. Although the establishment of a solid legal infrastructure is foundational and must come before the establishment of a system of quality education, the argument can be made that the latter is more important in the longterm development of a stable economy. While equal access to quality education depends on a certain level of legal and economic infrastructure in the first place, an educated citizenry

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renders that infrastructure more solid, valuable, and sustainable, thus, education and technology are more effective long-term investments for developing nations.

Additionally, there is some evidence that foreign investment is more likely to come to countries that have invested in education and technology. Companies looking to locate in a country want a skilled workforce that guarantees returns, as well as certain technological advancements like functional highways, electricity, and communication systems (Sachs et al. 46). Thus, developing nations need literate or educated workers and technological advances in order to manage foreign investments productively.

An informed, educated, literate citizenry is also necessary for a stable government, which is a requirement for a productive economy. Education is not a luxury; it is the sustaining force of a developed economy and functioning government. "Strong civil society engagement and participation are crucial to effective governance because they bring important actors to the fore, ensure the relevance of public investments,,,," (Sachs et al. 32). Thus, as addressed earlier, "strong" societal engagement comes from quality education for all, which in turn contributes to a stable government and prosperous economy.

A strong education system also serves as a solid foundation for better healthcare and the physical wellbeing of a population. In the case of female education in relation to healthcare, Sperling points out the following:

> An extra year of female education can reduce infant mortality by 5% to 10%. In Africa, children of mothers who receive five years of primary education are 40% less likely to the [*sic*] before age 5 than are children of uneducated mothers. Across both Africa and Southeast Asia, mothers who have a basic education ate [*sic*] 50% more likely than uneducated mothers to immunize their children. (Sperling)



Education gives people the knowledge to protect themselves from disease. It is no surprise, then, that "[e]ducation has also proven to be one of the most powerful tools to prevent the spread of HIV/AIDS. A recent study in rural Uganda found that, in comparison with young people with no education, those with some secondary education were three times less likely to be HIV-positive, and those with some primary schooling were about half as likely to be HIV-positive" (Sperling). Many catastrophic epidemics could be fought more effectively if only people had the education and knowledge to protect themselves. Indeed, education is itself a preventative health measure.

Thus, while expanding equal access to quality education and installing broadband Internet in all homes may not be the very first, foundational step toward building a brighter economic future in developing countries, it is in many ways the most important element. Education and technology make sustainable internal economic growth possible.

The future wellbeing of developing nations depends on investment in human capital. When the barriers of all forms of inequality are abolished, and everyone has equal access to quality education and technology, skilled workers will thrive at their fullest, and economies will grow. Of course, quality education and thriving industry will look different from one developing nation to another, and as of yet, no country in the world has formulated the perfect solution to poverty and human suffering; there is no single solution. In an ideal world, all nations would come together, acknowledge potential areas for growth, and help one another toward a common goal of global economic prosperity.

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