ALX Foundations: Milestone 3 Worksheet

Instructions: Provide responses to all items in the orange boxes. The worksheet consists of Sections A-E. Work on this worksheet one section at a time throughout your week, and return to Savanna after each section for the next set of content and further instructions.

SECTION A: Problem Statement

Step 1: Your GCGO

Which Grand Challenge or Great Opportunity (GCGO) do you want to play a part in addressing? (Pick one.)

As a reminder, the GCGOs are:
- Urbanization
- Education
- Infrastructure
- Healthcare
- Climate change
- Governance
- Job creation
- Agriculture
- Natural resources
- Arts, culture, and design
- Tourism
- Empowerment of women
- Regional integration
- Wildlife conservation

GCGO: Job creation

Step 2: Describe <u>Your</u> Problem

You are going to take a first pass at briefly describing <u>your</u> chosen problem. This can be any problem that speaks to you, as long as it is a real-life occurrence that is clearly linked to your chosen GCGO, that occurs in a certain place and for certain people (and/or animals), and that it can be clearly defined.

For example, if you chose wildlife conservation as your GCGO, you might first state your chosen problem as:
There are very few white rhinos left in Kenya and they are in danger of going extinct.

Another example, if you choose infrastructure as your GCGO:
Residents of major cities in South Africa endure prolonged periods without electricity, significantly hampering their ability to generate income.

Note that this is just your first attempt stating the problem, and you don't need to quantify the problem yet. In order to get to your official problem statement (which does need to be quantifiable) first answer the following questions. The more specific your answers, the better. You may also ask Google, Wikipedia, , ChatGPT, and/or other reliable online sources to help you. Please be sure to cite (give credit to) any sources that you use.

Describe your problem using What/Who/When/Where/Why/How....

1. **What** is the problem? What is reality like because of this problem? What will reality be like if the problem continues?

What is the problem?

In Africa specifically, job creation is a pressing issue marked by high levels of unemployment, especially among youth and women. Factors contributing to this problem include rapid population growth, inadequate investment in education and skills development, limited access to capital for entrepreneurs, and structural challenges within the labor market.

What is reality like because of this problem?

As a result, many individuals struggle to find stable employment with decent wages and benefits. This situation perpetuates poverty, economic vulnerability, and social unrest. Informal or precarious work becomes a fallback for many, deepening cycles of poverty and hindering sustainable economic growth.

What will reality be like if the problem continues?

Continued neglect of job creation could worsen social and economic challenges in Africa. Persistent unemployment may lead to heightened social discontent, political instability, and increased migration. Failure to address this issue also undermines efforts to achieve sustainable development goals, exacerbating inequalities and impeding overall progress on the continent.

2. **Who** does this problem impact, directly and indirectly? Who contributes to the problem?

The lack of job creation affects job seekers, particularly youths, and vulnerable sectors. Small businesses also struggle in slow economies. This indirectly impacts society, leading to increased social service demands and reduced market growth potential. The problem is mainly caused by misaligned educational systems, automation prioritization without workforce development, and international policies favoring capital over labor. Resistance to change and innovation also hinders economic resilience and job generation.

3. **When** did this problem begin? When does it occur?

The inadequate job creation problem has occurred since the late 20th century, accentuated by globalization and technological advances from the 1980s onwards. It is most visible during economic downturns, technological transitions, or significant events like the 2008 financial crisis and the COVID-19 pandemic, which lead to job losses and slow employment recovery. The issue is ongoing and affects regions and sectors unevenly, especially those with inflexible labor markets, outdated educational systems, or slow adaptation to global economic shifts.

Africa's job creation difficulties are rooted in its colonial past (late 19th to mid-20th centuries) where resource extraction took priority, hindering industrial development and education that didn't prepare citizens for a diversified job market. These challenges persisted after independence (mid-20th century onwards) due to economic policy choices and political instability in some regions, leaving a legacy of limited industrialization, skills mismatches, and a large informal sector with fewer stable jobs.

4. **Where** is this problem occurring? What is the context in which it occurs?

According to [Gemini](#)/Google, the problem of inadequate job creation in Africa is most prevalent in sub-Saharan Africa. Here's the context:

Rapid population growth: The working-age population is booming, but job creation isn't keeping pace. This creates intense competition for a limited number of opportunities.

Dominant informal sector: Many jobs exist outside formal regulations, offering lower wages, less security, and limited growth potential.

Limited economic diversification: Many economies rely heavily on resource extraction (minerals, oil) or agriculture. This creates vulnerability to price fluctuations and doesn't generate enough diverse job opportunities.

Skills mismatch: Educational systems might not be equipping graduates with the skills needed for the jobs available in a changing global market.

This combination of factors creates a situation where a large portion of the population struggles to find decent, stable employment.

5. **Why** is this a problem? What are the pain points or gaps? Why do you personally care about this problem?

This issue is critical because adequate job creation is fundamental for economic growth, social stability, and individual well-being. The lack of meaningful employment opportunities leads to increased poverty, inequality, and social unrest. Pain points and gaps include mismatches between available jobs and workers' skills, limited access to education and training, barriers to entrepreneurship, and inadequate support for industries undergoing transformation. Personally, I care about this problem because it directly impacts the livelihoods and aspirations of millions worldwide, perpetuating cycles of poverty and limiting opportunities for socioeconomic advancement. Addressing it requires collaborative efforts from governments, businesses, educational institutions, and communities to create inclusive, sustainable solutions that empower individuals and foster economic resilience.

6. **How** would reality be different if this problem were solved? (This can be your opinion.)

If this problem of inadequate job creation were effectively solved, reality would be profoundly different. We would see vibrant economies characterized by low unemployment rates and widespread opportunities for meaningful and fulfilling work. There would be a stronger sense of social cohesion and reduced inequality as more individuals and families enjoy financial

stability and upward mobility. Innovation and entrepreneurship would flourish, driving sustained economic growth and fostering a culture of creativity and resilience. Moreover, communities would experience improved well-being, with better access to education, healthcare, and essential services, ultimately leading to a more prosperous and equitable world for all.

Step 3: Understand and Quantify Your Problem

Next, you will conduct some basic web research to better understand, define, and quantify your problem. You will do this through a combination of Google search, Wikipedia, credible web sources, ChatGPT or other AI research tool, and your own synthesis of information from these sources. Be sure to give credit to your sources, and paraphrase (use your own words) rather than quoting directly.

7. What is the historical context for this problem? What happened in the past that contributes to the problem now?

The historical context for inadequate job creation spans centuries, marked by significant socio-economic transformations. Industrialization from the 18th century onwards shifted economies from agrarian to industrial, creating new jobs but also fostering labor exploitation and inequality. Global events like World Wars and the Great Depression influenced employment dynamics, highlighting the need for government intervention. The latter half of the 20th century saw the rise of globalization, altering industries and labor markets globally, while technological advancements, particularly in automation and digitalization, transformed job landscapes. Economic ideologies and policies, such as neoliberalism, have also played a role, often prioritizing capital over labor protections. These historical factors collectively contribute to the challenges faced in contemporary labor markets. (via: chatGPT)

Current job creation struggles in Africa stem from a long history, shaped by colonial resource extraction that neglected industry development, limited infrastructure focused on that extraction, and educational systems that didn't equip the workforce for a diversified economy. Post-colonial economic policies and political instability in some regions further hampered progress, leaving a legacy of limited industrialization, skills mismatches, and a large informal sector with fewer stable jobs. (via: Google Gemini)

8. What are the possible economic (money-related) reasons why this problem exists and continues?

The problem of inadequate job creation persists due to various economic factors. Companies often prioritize cost reduction through automation and outsourcing, while income inequality and tax policies can divert resources away from job creation. Financialization of economies and structural changes in industries also contribute, alongside limited access to capital and inadequate investment in education and skills training. Policy uncertainty further hampers job creation efforts. Addressing these issues requires comprehensive policies that promote inclusive growth, equitable resource distribution, investment in human capital, and support for entrepreneurship and innovation.

9. What are the possible political reasons why this problem exists and continues?

Several political factors contribute to the persistence of inadequate job creation. Political leaders may prioritize other agendas over job creation, such as national security or taxation policies, leading to insufficient attention and resources allocated to employment initiatives. Complex or restrictive regulations can create barriers to business formation and expansion, while political polarization and gridlock can impede collaborative policy-making aimed at promoting job growth. Additionally, the influence of special interest groups and corporate lobbyists may skew policymaking away from initiatives supporting broad-based job creation. Resistance to labor market reforms and decisions regarding trade policies can also impact job creation dynamics. Moreover, allocation of public funds towards sectors like defense spending rather than investments in job creation programs can further exacerbate the problem. Political stability, transparency, and confidence are crucial for fostering an environment conducive to job creation and economic prosperity. Addressing these political factors requires bipartisan cooperation, responsive governance, and policies that prioritize job creation as a central tenet of economic policy.

10. What cultural beliefs and/or social norms possibly contribute to this problem?

Cultural beliefs and social norms can influence the problem of inadequate job creation in several ways. Stigma surrounding unemployment may hinder reentry into the workforce, while resistance to change can impede adaptation to evolving job market demands. Preference for stability over risk-taking may discourage entrepreneurship, and perceptions of success tied to traditional career paths may undervalue alternative forms of work. Hierarchical workplace cultures may limit innovation and employee empowerment, and gender norms can contribute

to occupational segregation. Moreover, an educational emphasis on academic success over practical skills may lead to mismatches in the labor market. Addressing these cultural beliefs and social norms requires fostering an environment that values diverse career paths, encourages entrepreneurship, challenges stereotypes, and promotes lifelong learning.

11. Who are the people potentially responsible (directly or indirectly) for creating and/or maintaining this problem?

Responsibility for the problem of inadequate job creation is shared among various groups. Government officials shape economic policies and labor regulations affecting job opportunities, while business leaders influence employment levels through hiring and investment decisions. Educational institutions play a role in preparing individuals for work, but outdated curricula can hinder job readiness. Labor unions, while advocating for workers' rights, may inadvertently create barriers to job creation through rigid regulations. Financial institutions impact entrepreneurship and small business growth through lending practices. Civil society organizations can advocate for inclusive policies, and individual consumer choices influence business growth and job opportunities. Addressing this issue requires collaborative efforts among these stakeholders to implement policies that support job growth and ensure equal access to opportunities for all.

Now that you have the preliminary information you need, you'll continue your web research to find some numbers, or quantifiable information, to help describe your problem:

What numerical data can you find that is relevant to your problem? Be sure to use your own words and also cite (give credit to) your sources.

Example 1:
According to Chat GPT, there are about 880 white rhinos currently living in Kenya. This population is very small, and they are critically endangered.

Example 2:
Johannesburg has approximately 5.8 million residents (per ChatGPT) and had approximately 4.7 million international overnight visitors in 2019 (according to the South African Tourism Annual Report for 2019/2020).

12. Approximately how many people (and/or animals) are **directly** impacted by this problem? Explain.

As some research says it's difficult to give an exact number of people directly impacted by inadequate job creation, but estimates run in the hundreds of millions. Here's why:

Unemployed and Underemployed: The International Labour Organization (**ILO**) tracks global employment trends. In 2021, they estimated there were 188 million unemployed people globally [ILO insufficient paid work]. This doesn't include those underemployed (not enough work hours) or discouraged workers who gave up searching for work.

Ripple effects: Inadequate job creation goes beyond the unemployed. Families and communities depending on those lacking jobs are also affected.

While there's no data on animals being directly impacted, some industries with job losses might indirectly affect animals involved in those sectors (e.g., fewer jobs in horse breeding if fewer people ride horses).

The focus is on human impact. Here are some resources for further info:

ILO Report: [ILO insufficient paid work]
Credits: (https://gemini.google.com , www.google.com, www.ilo.org)

13. Approximately how many people (and/or animals) are **indirectly** impacted by this problem? Explain.

Unfortunately, there's no single, reliable number for the total number of people indirectly impacted by inadequate job creation. Here's why:

Ripple effects are complex: When someone loses a job, it impacts not just them but also their family, friends, and the local community. This creates a ripple effect that's difficult to quantify.

For instance: * Spouses or partners might need to take on extra work to compensate, impacting their well-being. * Children might experience changes in living standards or

educational opportunities. * Local businesses that relied on the income of those who lost jobs might suffer, leading to further job losses.

Global vs. Regional Variations: The impact varies greatly depending on factors like the social safety net in a particular region. Developed nations with strong social programs might have a less severe indirect impact compared to developing countries.

Here's what we can say:

Millions are affected: The International Labour Organization (ILO) estimates hundreds of millions are directly affected by underemployment or lack of work [ILO insufficient paid work]. Considering the ripple effect, the total number impacted indirectly is likely much higher, possibly in the hundreds of millions or even billions.

Vulnerable populations are most affected: Children, elderly dependents, and those already struggling financially are likely to feel the indirect effects most acutely.

Further Resources:

ILO Report: [ILO insufficient paid work]

Credits: (https://gemini.google.com , www.google.com, www.ilo.org)

14. What other numerical data can you share that is relevant to your problem? What can you find out about its size and scope? What can be measured? (For example, the amount of trash produced in Nairobi each day, the number of people without access to clean water, etc.)

Here's some numerical data to understand the size and scope of inadequate job creation in sub-Saharan Africa:

Youth Unemployment:

The ILO estimates youth unemployment in sub-Saharan Africa to be around 13.6% in 2023 [ILO youth unemployment]. This is significantly higher than the global average.

Labor Force Participation Rate:

This metric, ideally around 60-70%, indicates the percentage of the working-age population actively employed or unemployed but looking for work [BLS labor force participation rate]. A lower rate in Africa might suggest discouraged workers or those who left the workforce due to lack of opportunities.

Vulnerability Rates:

Organizations like the World Bank track the percentage of the population living below $1.90 or $3.20 a day [World Bank poverty data]. While not a direct measure of job creation, high poverty rates often correlate with limited job opportunities.

Skills Gap Data:

Studies by the OECD and African Development Bank measure the gap between skills demanded by employers and those possessed by graduates [OECD skills gap, AfDB Jobs for Youth in Africa]. This data helps understand how education systems might be failing to equip youth for the job market.

Remember:

This data provides a quantitative picture, but qualitative factors are also crucial.

Job Quality: Not all jobs offer good wages, benefits, and stability. Data on wages and job security can be important.

Informal Sector Size: The percentage of the workforce employed informally paints a clearer picture of the job market's structure.

By this analysis, we can gain a more comprehensive understanding of the size and scope of inadequate job creation in Africa.

Step 4: Describe Your Solved State

Without having to come up with *how* to solve the problem, describe what the desired, solved state looks like. Please use numbers wherever possible, and make your solved state specific and measurable.

15. If the problem were addressed/solved, what would reality be like?

If the problem were addressed/solved, the reality could be a landscape of increased prosperity and well-being. Here's a breakdown of potential changes:

Economic Boom: More employed people translate to higher tax revenue for governments, which can be invested in infrastructure, education, and social programs. Businesses would also benefit from a larger customer base, potentially leading to growth and further job creation.

Reduced Poverty: With more people earning a living, poverty rates would likely decline. This would mean better access to basic necessities like food, shelter, and healthcare for millions.

Improved Well-being: Having a job provides not just income but also purpose, structure, and social connection. This can lead to a healthier and happier population.

Stronger Communities: When residents are employed and contributing to the economy, communities can thrive. This fosters a sense of shared success and stability.

However, challenges like automation and global competition would still exist. The key would be to create a diversified and adaptable workforce prepared for the future of work.

16. Are there other benefits that would come from your problem being solved? Name at least one.

Successfully addressing job creation challenges could lead to a ripple effect of positive changes. A more employed population would **generate higher tax revenue** for investment in

infrastructure and **social programs**, while businesses would benefit from a larger customer base, creating a cycle of growth. This economic prosperity, coupled with reduced poverty, would likely lead to a healthier and happier population with stronger communities. Furthermore, increased employment opportunities could foster **social stability** by reducing tension and unrest, and a skilled and employed youth bulge could become a powerful driver of economic growth and innovation, creating a demographic dividend that benefits all of Africa.

Step 5: Clarify Your Problem Scope

You are more effective at solving a problem when you know where its limits are. That is, when you know what is "in scope" and "out of scope." For this reason, it is important to list what is out of scope, or NOT included as part of your problem definition.

Example 1:
The scope of the problem does not cover any other animal species besides white rhinos. It does not include white rhinos outside of Kenya.

 Example 2:
The scope of the problem does not include any businesses or people outside of the legally-defined Johannesburg city limits. It does not apply to tourists or visitors staying for less than 1 year in Johannesburg.

17. What is NOT in scope for your problem?

The problem of inadequate job creation is specifically focused on humans and their economic opportunities. Here's some of what's NOT directly in scope:

Impact on Animals: While some industries with job losses might indirectly affect animals involved (Example: fewer jobs in horse breeding), the core issue isn't animal welfare.

Environmental Issues: Job creation can have environmental consequences, but the focus here isn't on pollution or resource depletion. It's about human well-being and economic participation.

Global Political Tensions: While joblessness can contribute to social unrest, the problem

itself doesn't encompass broader geopolitical issues.

The main concern is creating sufficient decent jobs for Africa's growing population to ensure economic prosperity and social stability.

Step 6: Areas for Learning

What do you not know or understand that you would like to know more about? This can be anything related directly or indirectly to your problem. Let your curiosity run wild!

Example 1:
I'd like to know where most of the demand for rhino horn is coming from. I'd like to know who are the primary buyers and who is behind the trafficking of rhino horn. I'd like to know how long the average rhino's lifespan is. I'd like to know how many babies a typical female rhino has, and how many babies typically survive into adulthood. I'd like to know more about what diseases impact rhinos. I'd like to know more about the kinds of habitats that rhinos thrive in. I'd like to understand what international organizations do the best job supporting wildlife conservation and what their practices are. I'd like to know what models of community involvement have been most successful in keeping wildlife safe and thriving. I'd like to understand how much land is available in Kenya for rhinos to roam.

Example 2:
I'd like to better understand the utility company Eskom and its history. I'd like to understand why Eksom has failed to plan properly to update its infrastructure. I'd like to understand the relationship between Eksom and the South African government. I'd like to know if there are private utility companies providing competition to Eksom. I'd like to know what the latest breakthroughs are in solar power. I'd like to know what other possible energy sources might be made available in Johannesburg. I'd like to know how much energy tourists and temporary visitors use. I'd like to better understand the process of how limited energy supply gets allocated to people and businesses. I'd like to better understand the economic impact to people and businesses of not having power.

18. What else would you like to know or understand better? (It can be anything related to your problem.) List 5-10 things.

I'd like to know what are the most successful examples of job creation initiatives in Africa, and what can be learned from them. Understanding successful models could provide valuable insights into effective strategies and practices. I'd like to understand the role of Foreign Investment to play a positive role in job creation in Africa. I'd like to know the most in-demand skills across different African economies and how educational systems can be reformed to better equip graduates for the job market. I'd like to know the key sectors with the highest potential for job creation in various African countries, and what barriers exist to their development. I'd like to know how the informal sector contributes to employment in Africa and what steps can be taken to integrate informal workers into the formal economy. I'd like to know how climate change will impact job creation in Africa, particularly in sectors like agriculture; and what strategies can be developed to create green jobs and ensure a just transition to a low-carbon economy.

Step 7: Problem Statement

This step is the culmination of all you have done in Part A. You will synthesize the work you have done above to create a problem statement of 150 - 250 words. This should be in narrative form, 2-4 paragraphs, and should NOT use bullet points.

Your problem statement should:
- Provide a succinct description of the problem **in the first sentence**.
- Indicate specific population affected
- Explain the impact (cost, time, environmental, personal) and why the problem matters.
- Explain what reality would look like if the problem were solved. The gap that exists between present reality and the desired outcome should be clear.

Please cite (give credit to) where your information came from directly in your statement. Avoid word-for-word quoting and instead paraphrase (use your own words), as modeled in the example. Also list your sources and their urls (web addresses) at the end.

Example :

Kenya's white rhinos are in critical danger of extinction. There are currently about 880 white rhinos in the country of Kenya, per Wikipedia. According to Chat GPT, Rhinos are considered a keystone species, meaning they have a disproportionately large impact on their ecosystem compared to their population size. Rhinos help shape their environment by influencing vegetation growth and acting as seed dispersers, which creates habitat for other species (per ChatGPT).

The extinction of white rhinos would have cascading effects on other plant and animal species in their habitat. According to the Kenya Wildlife Service, rhinos' presence in reserves and parks bring millions of tourists each year, contributing to local economies and supporting conservation efforts. Once a species goes extinct, it is gone forever. The extinction of rhinos would represent the loss of millions of years of evolutionary history, and unique genetic diversity that science has yet to fully understand and benefit from (per ChatGPT).

My problem would be considered solved when the population of wild, white rhinos in Kenya reaches 10,000, and when all imminent threats to their population including poaching and habitat destruction are not present. If this were the reality, it would create ecosystem balance, create large revenues from ecotourism, preserve important cultural symbols, and allow for genetic diversity that could benefit humanity in ways we may not yet fully understand.

Sources:
Kenya Wildlife Services Annual Report 2017, https://www.kws.go.ke/content/annual-reports
ChatGPT, https://chat.openai.com/
"White Rhinoceros", Wikipedia, https://en.wikipedia.org/wiki/White_rhinoceros

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19. My problem is statement is:

Millions of young African people, with potential, find themselves locked out of the formal job market. This isn't a temporary blip, but a persistent challenge that traps a generation. The lack of decent jobs disproportionately impacts this youthful population, hindering their ability to build a future, support families, and contribute to their economies.

The cost of this missed opportunity is staggering. Personal dreams are deferred, leading to frustration and a sense of hopelessness. Communities lose the energy and innovation young people bring. National economies stagnate, unable to harness the full potential of their most abundant resource - their people. The gap between the present reality of underemployment and the desired future of a thriving workforce is vast. Imagine a different Africa, where every young person has access to a job that utilizes their skills, offers a living wage, and provides a path for advancement. This transformation would unlock a wave of prosperity, social stability, and a brighter future for Africa. Only by addressing the root causes of inadequate job creation can we bridge this gap and empower a generation to reach its full potential.

20. Please list all sources that you used to form your problem statement:

Google Gemini
chatGPT
ILO (International Labour Organization)

STOP

Please go back to Savanna and continue with your learning content. You will be filling out Step 8 after you've completed the Peer Activity.

Step 8: Peer Activity Report

This step is related to your peer activity and should help you to improve your problem statement. Answer the following questions as part of the activity and then update your Problem Statement in Step 7 above, based on your feedback.

21. Who reviewed your problem statement? (Give the first and last names of your 2 peers).
    Shema Kenny
    Mucyo Fleuris

22. In brief, what feedback did they give to you?
    They all were kind to me and gave me insightful views and constructive suggestions for improvement. Their feedback helped me to see my work from a different perspective and identify areas where I could strengthen it. I particularly appreciated their specific examples and actionable recommendations.

23. Was their feedback useful to you? Did it feel kind? Why or why not?
My peers provided invaluable feedback. Their insightful suggestions and kind approach helped me see my work from a new perspective and make improvements. Specific examples and actionable steps made it even better. They created a positive learning environment where I could truly grow.

24. Who did you give feedback to? (Give the first and last names of 2 peers- they may be the same or different peers from above.)
Mucyo Eddy Fleuris
Shema Kenny

25. Do you feel that you gave useful and kind feedback to your peers? Why or why not?
I gave my peers helpful, friendly, and kind feedback because I know how helpful it is to me when I get such feedback. When giving feedback, I focused on providing specific examples and actionable suggestions for improvement. Instead of criticizing, I aimed to be constructive and encouraging. Phrases like "Here's an interesting approach..." or "This could be even stronger if..." can guide someone towards improvement without negativity. Overall, I believe my approach fostered a space where everyone felt comfortable learning and growing from each other's ideas.

STOP

Please go back to Savanna and continue with your learning content. You will be prompted on when to return to complete Section B.

SECTION B: Research Questions & Hypothesis

IMPORTANT: Complete this section AFTER completing the Savanna Modules *Asking Effective Questions* and *Web Research*.

Step 9: Research Questions

Based on what you have learned so far and on 'Step 6: Areas for Learning' from this worksheet, come up with 3 research questions. **Research questions should be complex enough that they can't be answered by a single Google search.** If appropriate, form a hypothesis that your research may confirm or reject. (As a reminder, a hypothesis is a prediction of how you think your research will answer your research question. It is your best guess. If you truly have absolutely no idea, state "not applicable.")

Example Research Question #1:
What are some ways can we increase rhino populations?
Hypothesis*:*
Rhino populations will be increased by creating more open spaces for them to roam, increasing their protection, increasing international interest in them, and other reasons I have yet to uncover.

Example Research Question #2:
Which organizations have been effective at wildlife conservation and what practices do they use?
Hypothesis*:*
Not applicable; I don't know.

Example Research Question #3:
How many babies can a typical female white rhino have in her lifetime, and what are the reasons a female may not have high fertility?
Hypothesis*:*
A typical female white rhino can have 5 babies in her lifetime, and fertility may be affected by diet, amount of grazing territory, poaching, stress, mate availability, and other reasons I have yet ot uncover.

26. Research question #1:
To what extent can leveraging the informal sector in Africa be a sustainable solution for large-scale job creation, considering factors like worker protections, social safety nets, and integration into the formal economy?

Hypothesis (if applicable):
Integrating the informal sector into the formal economy can lead to sustainable job creation in Africa, provided proper regulations and social protections are in place.

27. Research question #2:
Can a targeted focus on fostering innovation and entrepreneurship, particularly among young Africans, create a significant multiplier effect on job creation across different sectors in Africa, and if so, what specific policy interventions and support structures are most effective?

Hypothesis (if applicable):
Encouraging young Africans to innovate and become entrepreneurs, with access to capital, mentorship, and business development programs, can create jobs across various sectors.

28. Research question #3:
What is the most effective combination of education reform, vocational training programs, and digital literacy initiatives to bridge the skills gap between African graduates and the demands of the evolving job market?

Hypothesis (if applicable):
To equip graduates with the necessary skills for the current job market, integrate vocational training and digital literacy programs into core education. Foster stronger partnerships between educational institutions and the private sector for a better chance of success.

STOP

Please go back to Savanna and continue with your learning content. You will be prompted on when to return to complete Section C.

SECTION C: Web Research

Part 1: Research Plan

You can plan out your research, for each of your research questions, using the template below.

29. **Step # 1: Define your objectives, 3 research questions & associated hypotheses.**

Key Questions: What are you trying to accomplish with this research? What do you wish to find out that will accelerate your work in the right direction?

Your Response:
This research aims to achieve a two-fold goal. First, I want to gain a deeper understanding of successful job creation strategies in Africa. This involves exploring the potential of the informal sector, the role of youth entrepreneurship, and effective skills development approaches. This knowledge can then be used to create more targeted interventions and support future research. Second, I want to identify actionable solutions. Going beyond just problem identification, I'm looking to uncover concrete policy recommendations, support structures, and program designs that can be implemented to address the skills gap, promote youth entrepreneurship, and leverage the informal sector for sustainable job creation across Africa.

30. **Step # 2: Determine your end outputs.**

Key Questions: What type of data/information is ideal for you to find, based on what you are trying to accomplish? Do you need to present it in any particular format?

Your Response:
To achieve this research's goals, the ideal data would be a mix of real-world success stories. Case studies and program evaluations on leveraging the informal sector, youth entrepreneurship initiatives, and effective skills development programs (including data on job creation, sustainability, and target demographic impact) would be invaluable. Additionally, policy analyses and recommendations from reputable organizations like the World Bank or African Development Bank would be crucial for understanding effective policy interventions. Finally, quantitative data on skills gaps and labor market trends (reports, surveys, research) would help identify the specific skills mismatch that needs to be addressed. While the format isn't critical, clear reports, interactive dashboards, or well-summarized research papers would be most helpful for analyzing this data and uncovering actionable solutions.

31. **Step # 3: Scope your main sources of information.**

Key Questions: Do you already know where you might want to go to find the information you're seeking? Are there particular entities or organizations that you know are seen as "experts" on the topic?

Your Response:

I would have to do some research to identify the most comprehensive and up-to-date sources, but according to Gemini(Google chatbot), there are several reputable organizations that likely have valuable information on job creation in Africa. International organizations like the World Bank, with its data and policy recommendations on economic development, and the African Development Bank, with its focus on youth entrepreneurship initiatives, would be good starting points. The International Labour Organization (ILO) provides global and regional data on employment trends and skills gaps, particularly for youth. Additionally, the Organisation for Economic Co-operation and Development (OECD) conducts research on skills gaps and labor markets, including studies on Africa. For a regional perspective, the African Union's focus on youth development and job creation, along with sub-regional economic communities' initiatives, could offer valuable insights. Finally, research institutes like Brookings Institution and Brenthurst Foundation, known for their work on economic development in Africa, might have conducted relevant research or advocacy work. These resources should provide a strong foundation for delving deeper into successful job creation strategies across the continent.

STOP

After you updated earlier parts of the worksheet based on your research plan, please go back to Savanna and continue with your learning content. Return to Part 2 and Part 3 prior to submitting your milestone.

Part 2: Conducting Research

You can answer the following questions as you complete conducting your research into your research questions.

32. Step 1: Begin gathering your required information.

Key Questions: What search terms should you use? How many reports/articles do you want to read before deciding you have seen enough?

Your Response:
I'll use search terms like "job creation Africa," "youth employment Africa," and "skills gap Africa," and combine them with specific areas of interest to find 20-30 articles or

reports. From there, I'll deep dive into 10-15 that seem most promising, refining my search terms as I go.

33. Step 2: Evaluate the Validity/Credibility of Your Sources and Information

Key Questions: Are the sources credible and reliable? Consider the authority, accuracy, objectivity, and currency of the information to ensure its validity for your research.

Your Response:
I carefully considered each source's authority, ensuring they were published by reputable institutions or authors with recognized expertise in the field. I assessed the accuracy of the information by cross-referencing facts with multiple sources. Objectivity was scrutinized to identify any potential biases or agendas that might skew the information. Lastly, I ensured the currency of the information by prioritizing the most recent publications and data, which reflect the latest research and developments. This thorough review process supports the reliability and credibility of the sources chosen for my research.

34. Step 3: Synthesize and Communicate Your Key Findings.

Key Questions: Summarize the key information and findings that you have gathered during your research. Organize these findings in a clear and coherent manner, ensuring that they directly address your research objectives and questions.

Your Response:
The research on job creation in Africa highlights the technology, agriculture, and renewable energy sectors as key areas for employment growth, facing hurdles like access to finance and skills mismatches. Youth unemployment stands out, with education not meeting job market needs. Digitalization presents both opportunities and challenges. Effective strategies include improved vocational training and support for entrepreneurship, with successful examples in tech and agriculture demonstrating the potential for impactful economic growth across the continent.

35. Return to Your Original Objectives and Key Questions.

Key Questions: Revisit your initial objectives and key questions to ensure that your research findings adequately address them. Reflect on whether your findings have effectively contributed to solving the identified problem.

Your Response:
Our research focused on identifying key sectors that have the potential for job growth in Africa. We also pinpointed the barriers that hinder job creation, such as financing, skills

mismatches, and regulatory issues. Our study evaluated effective strategies such as enhanced vocational training and entrepreneurship support. By addressing these key questions, we were able to offer actionable insights to stakeholders who are looking to tackle unemployment and stimulate economic growth. This marks a significant step towards understanding and addressing the challenge of job creation in Africa. However, realizing the full impact of these strategies requires ongoing collaboration, implementation, and adaptation to dynamic economic conditions. This suggests that our research is a foundational piece in a larger, continuous effort to solve the job creation puzzle in Africa.

Part 3: Research Summary

In 200-300 words, provide an executive summary of your research in the text box below. You should be synthesizing information from multiple sources. Provide answers and explanations for the 3 questions you investigated and your key research findings. This should be in a narrative format (no bullet points), and be at least 3 paragraphs long.

Please use at least 3 different online sources such as ChatGPT, organizational websites, Wikipedia, etc. Please cite (give credit to) where your information came from directly in your statement. Avoid word-for-word quoting, paraphrase instead (use your own words), as modeled in the example. Also, list your sources and their URLs (web addresses) at the end.

36. Research Summary
Unlocking Africa's Job Creation Potential: A Multi-Pronged Approach

Millions of young Africans are locked out of the formal job market, hindering economic growth and social stability [1]. This research investigated how to create sustainable job opportunities across the continent, focusing on three key areas: leveraging the informal sector, fostering youth entrepreneurship, and bridging the skills gap.

Africa's vast informal sector, though a significant source of employment, faces limitations. Regulations, lack of access to finance, and social safety net gaps can hinder its potential. Research by the World Bank suggests that successful strategies involve streamlining regulations to ease formalization. Additionally, targeted financial inclusion programs and social safety nets for informal workers can incentivize transitions to formality. This approach fosters job security and growth for the informal workforce while strengthening the formal economy.

Bridging the skills gap and fostering youth entrepreneurship are also crucial. The International Labour Organization (ILO) emphasizes a multi-pronged approach to bridge the skills gap. This

includes integrating vocational training and digital literacy programs into core education. Stronger partnerships between educational institutions and the private sector are essential to ensure graduates possess the skills employers demand. The African Development Bank highlights the need for support structures like incubators and mentorship programs to empower young entrepreneurs. Access to finance through grants or microloans is crucial for youth-led ventures, along with education reform that fosters creativity and innovation.

In conclusion, there's no one-size-fits-all solution. Successful strategies will consider regional specificities and target demographics like women and youth in rural areas. Collaboration across sectors is key for effective interventions. By leveraging the informal sector, fostering youth entrepreneurship, and bridging the skills gap, Africa can unlock its vast job creation potential and empower young people to build a brighter future.

Sources:

1. Creating Jobs for Africa's Growing Population: https://www.worldbank.org/en/topic/competitiveness/publication/creating-jobs-for-africas-growing-population (World Bank: https://www.worldbank.org/)
2. Jobs for Youth in Africa: African Development Bank (https://www.afdb.org/en)
3. Global Skills Gap Report 2021: International Labour Organization (https://www.ilo.org/)

Once you have completed this worksheet, export/convert to .pdf, rename it per the instructions, and upload to Savanna as your Milestone # 3 Submission. Celebrate a job well done!