

The World in 25 People: Global Proportions with AI

Why?

This lesson, which scales down global demographics to the number of students in a specific classroom, aided by AI-generated text, is useful for a holistic educational experience, applying in several classes, including social studies, geography, math/statistics, and sociology. It cultivates a deeper understanding of global diversity and cultural empathy. Students benefit from visualizing demographic breakdowns, while providing a practical application of percentages and data interpretation. Incorporating AI like ChatGPT enhances this lesson by providing data applied to the size of a class, interactive engagement, and the ability to simulate complex global data in a simplified, easily digestible format. This approach fosters critical thinking and global awareness, and helps students appreciate the intricacies of our interconnected world.

Materials Needed

- Computers with internet access for generative AI (such as ChatGPT)
- Projector to display examples
- A room with sufficient space for all students to move around to different areas

Time needed

Approximately 30 - 45 minutes

Objectives

- Students will be able to analyze global demographic data to understand the proportions of different characteristics.
- Students will be able to interpret and explain statistical information, converting percentages into tangible representations for a scaled-down population model.
- Students will be able to engage in informed discussions about global diversity and disparities, reflecting on how demographic differences impact various aspects of life in different regions of the world.

Key Concepts & Vocabulary

- **Demographics:** The statistical characteristics of human populations (such as age, race, gender, income).
- **Proportion:** A part, share, or number considered in comparative relation to a whole.
- **Artificial Intelligence (AI):** The simulation of human intelligence in machines that are programmed to think and learn like humans.

Lesson

This lesson can be scaled to whatever number of students there are in a given class. If

the class is a different size, say 18 or 32 students, make sure to use that number in all proportion calculations and prompts.

It may be important to mention that ChatGPT and other generative AI may not provide 100% accurate information, so this should be considered an approximation. In most cases, it should be possible to double-check statistics from reliable sources. Using generative AI is useful in its ability to translate statistics into the total you suggest.

Introduction

Explain the concept of scaling down the world's population (or a smaller population, such as a continent, region, country, or state) to a group of 25 (or whatever number of students are in the class) people to understand global proportions in terms of language, religion, or other demographics.

Teacher-Led Illustrations

1. Illustrate a few examples using generative AI, such as ChatGPT, to provide data on specific data breakdowns. For instance:
 - a. If the world were 25 people, how many would speak English, Mandarin, or Spanish? How many would be monolingual, bilingual, or multilingual?
 - b. What would be the religious breakdown?
 - c. Representation of access to essentials such as clean water or internet.
2. Discuss the implications of these proportions on global understanding.

Student Research

3. Divide the class into small groups.
4. Assign each group a category (e.g., language, religion, education level, etc. Additional ideas can be found in the Supplemental Activity Ideas section below.).
5. Students use ChatGPT to research and come up with breakdowns for their category as if the world were equal to the number of people in their class.
6. Have them write down the breakdowns as whole numbers out of the total. (i.e., they can't have half people, and the total must add up to the number of students in the class.)

Physical Group Activity

7. Have the entire class come together.
8. Each group explains the numbers they learned in their research. Based on the findings, physically separate students into groups representing different categories.
 - a. For example, in an exploration of religion, the breakdowns might be: 8 Christian, 6 Muslim, 4 Unaffiliated, 4 Hindu, 2 Buddhist, 1 Other
 - b. For another example, in an exploration of smartphone usage, the breakdown might be: 17 smartphone users, 3 cell phone users without

data, and 5 with no cell phone.

9. Make sure students know that they are representing members of the group, and there should not be any discrimination attached to which students are put into which groups.
 - a. If this is a concern, perhaps the identities of the groups could be withheld until after students are separated into groups of a specific size. In other words, separate into groups of 8, 5, 5, 3, 2, 1 and then explain what the groups represent.
 - b. Another possibility is to state the category, and then ask students to guess what the groups represent. (For example, state that the category is religions, and then have students guess which religion each group represents.)
10. This visual and physical representation helps solidify the concept of global proportions.
11. Encourage discussion on how this knowledge might affect their perception of the world.

Discussion Questions

- How did visualizing the world's population as 25 (or another number) people change your perspective on global diversity?
- How might the differences (such as language or religion) among our (25) people influence your cultural perspectives and interactions?
- How did physically grouping yourselves into demographic representations impact your understanding or memory of the information?
- How has using AI, like ChatGPT, helped in understanding and discussing these global issues?
- Knowing what we do now about the world's population, what actions can we take to address some of the disparities and challenges highlighted?
- Are there any drawbacks to simplifying the population in this way?
- Which part of the activity did you find most engaging or interesting, and why?
- How can you apply the knowledge gained from this activity to other subjects or real-world situations?

Supplemental Activity Ideas

Additional Category Ideas: Technology access, clean water access, food security, poverty, healthcare access, economic status, age distribution, median age, urban vs. rural living environments, sexuality, categories of employment, carbon footprint, access to transportation, political freedom, people who have experienced sexual violence, disability status, internet censorship, mental health, literacy rates, recreational habits, climate change awareness, veteran status, media consumption, pet ownership, risk of natural disasters, life expectancy, access to childcare, fertility rate, what percent of people vote or don't vote, living close to water, favorite sports, home ownership, social media preference, community volunteerism, height, pet

ownership.

Data Analysis and Visualization: Students use real-world data to create detailed visualizations (like infographics or interactive digital presentations) that represent various global demographics as if the world were 25 people. Students research deeper into their chosen categories and use digital tools to create visual representations.

Global Issues Debate and Solution Forum: Organize a debate and solution forum where students discuss major global issues highlighted in the initial lesson (like wealth inequality, access to education, climate change).

Mathematical Statistical Analysis: Students conduct a statistical analysis on a specific global demographic aspect as represented in the "25 people" model. Using real-world data, students calculate various statistical measures such as mean, median, mode, range, and standard deviation. They also explore more complex concepts like probability distributions or correlations as appropriate for their grade level.

Sources to Learn More

- Worldometer - A variety of global demographics in one site - <https://www.worldometers.info/demographics/world-demographics/>
- UN data on a variety of demographics - <https://www.unfpa.org/data/world-population-dashboard>
- Pros and cons of data visualizations - <https://www.tableau.com/learn/articles/data-visualization>