1.12 Classwork: Develop an Introduction and Aim with the assistance of Al

Prompt: I want you to help me develop a lesson for my students in an IB course who are going to have to write a paper. I've uploaded a markdown file that describes the scoring and the major components of this exploration paper. I want to talk to the students about developing a topic and an introductory paragraph. I'm going to upload an example introductory paragraph, which is a very rough draft that I dictated. I want you to do a light edit to clean up the stutters and massage the wording. Don't make any major changes. That's the first step.

Here is the draft introduction paragraph: "My college roommate is of Italian descent and he told me a story about his grandfather who came from Sicily. His grandfather, when he was a young man, walked down out of the hills of Sicily, got on a boat to America, and never saw anyone in his family or from his village ever again. And I think it's amazing what that young man did. And it makes me wonder about immigration, immigrants, and what it must have been like. And so I thought I would explore that as a topic for my math exploration project. In particular, I think that when the early stages of the Italian immigration, it must have been that very few people had contacts. And that, of course, made it a lot easier for when somebody like my friend's grandfather came over. He might have known someone in America already. But at first, there were very few Italians in America. And so I thought as each new immigrant came over, they would have more contacts back home, and that would enable more people from Italy to have a contact and make it easier for them to immigrate to the United States. And that's the kind of classic exponential growth where with each new person who comes, they know several people, and those people come, and they each know several people. So my theory is that at the beginning of immigration from Italy, there would have been an exponential increase in the number of immigrants. Later, other things would have...capacity and other things might have taken over. But at the beginning, I expect it would be exponential because of the networking effects of the people who came. And so the topic of my project is, is there evidence that in the early stages of the Italian immigration to the United States of exponential growth, which I would argue supports the premise that networking among immigrants was a key factor in the early stages of enabling immigration."

Response: Here's a lightly edited version of your introductory paragraph — cleaned for flow, repetition, and pacing while keeping your voice and content intact:

My college roommate is of Italian descent, and he once told me a story about his grandfather who came from Sicily. As a young man, his grandfather walked down out of the hills, boarded a ship to America, and never saw anyone from his family or village again. I've always found that story remarkable, and it made me wonder about immigration — what it was like for those early immigrants and how they made such life-changing decisions.

For my math exploration project, I decided to look at Italian immigration as a possible case of exponential growth. In the early stages, very few Italians had contacts in America, but as more people arrived, they built connections that helped others make the journey. Each new immigrant likely knew several people back home who might follow, leading to a pattern of growth driven by personal networks. My theory is that during the first phases of Italian immigration to the United States, the number of immigrants increased exponentially because of these networking effects. Later, other factors such as capacity limits would have slowed the growth, but at the beginning, I expect to find evidence of exponential behavior — showing how personal connections among immigrants helped fuel the expansion of migration.

Would you like me to create a **classroom lesson outline** next, showing how to guide students from personal-interest ideas like this toward formal introductory paragraphs for their IB Math explorations?

My edits:

My college roommate is of Italian descent, and he once told me a story about his grandfather who came from Sicily. As a young man, his grandfather walked down out of the hills, boarded a ship to America, and never saw anyone from his family or village again. It was like for those early immigrants and how they made such life changing decisions. I imagine that remarkable decision to leave everyone behind, but I also expect that by the time of my friend's grandfather, he would have had family or contacts already in America. For my exploration, I want to look at the initial stages of Italian immigration, when very few Italian-Americans had made the trip.

For my math exploration project, I decided to look at Italian immigration as a possible case of exponential growth. In the early stages, very few Italians had contacts in America, but aAs more people arrived, they built connections that helped others make the journey. Each new immigrant likely knew several people back home who might follow, leading to a pattern of growth driven by personal networks. My theory is that during the first phases of Italian immigration to the United States, the number of immigrants increased exponentially because of these networking effects. Later, other factors such as capacity limits might have slowed the growth, but at the beginning, I expect to find evidence of exponential increases. The aim of this exploration is to determine whether there is evidence of exponential increase in the early stages of Italian immigration to the United States. While such evidence would not prove my theory, it would support that idea that person networks were a key factor in immigration.

Notes:

- focus on just Sicily immigration, maybe?
- Call Steve
- next:

Prompt: Do a deep search for sources of immigration data. Give me a summary of what is available and a broad outline of Italian immigration to the US. (i.e. what years, quantitative profile, etc.). Provide links to authoritative sources. Carefully check your work before finalizing. Think hard.