

**A brief summary of the chapters (5-8 sentences) including major events, characters, and important information about setting (place and time).**

On November 1, 2004, Joshua Davis received a suspicious e-mail from Marcos Garciaacosta, an account manager in Chandler, Arizona at Intel.

Davis, who was an employee at Wired, decided to enquire more about the story mentioned in the e-mail. He got in touch with Fredi Lajvardi, a teacher at Carl Hayden Community High School in West Phoenix and heard a remarkable story.

Four high school students from Carl Hayden Community High School traveled to the campus of Cal State Santa Barbara, on June 24, 2004, to take part in the 3<sup>rd</sup> Annual Marine Advanced Technical Remote Operated Vehicle Competition. The four students (Christian Arcega, Lorinzo Santillian, Oscar Vasquez and Louis Aranda) brought a robot named "Stinky" that was partially created from scrap metal and was tested using a pool because there was no other body of water for testing the underwater functions. At the moment they were standing in front of the judges it did not matter that these four students came from a school where 71.17% of the students were below the poverty level, it did not matter that one of these students had once lived in a box attached to a trailer park, or that another had been turned down by the army because for being an illegal immigrant. What mattered was that they were catching the attention of Tom Swean and Lisa Spense-- a Navy head of engineering and a lead in a NASA laboratory who were seeing their ideas of what an engineer was being changed before their eyes.

**Your response to the reading (5-8 sentences) including your opinions about and reaction to the assigned chapters. This section is a place to think deeply about the book and the emotions and complex ideas it brings up for you.**

I really enjoyed seeing how the students were not being defined by where they came from or how they looked: They were being defined by what they had done in building the robot. They were prepared to answer difficult questions and show that they knew what they were talking about. People who want to break barriers or go into a field that people might find surprising always need to go above and beyond to show that they're knowledgeable in the field and deserve to be there. They also didn't define themselves, (i.e., if they had thought about who they were up against, or weren't confident, they would not have been as convincing to the judges).

I also appreciate how the students didn't use their lack of resources as an excuse. They took the knowledge they had, the equipment available to them, and put their brains together to make the best possible robot. From what I've read so far, it doesn't really seem like these guys were trying to beat everyone else but were using their brains and resources to make something special, something they would be proud of, and something they felt confident enough to show to other people who worked in that industry.

**2 discussion questions. These should be open-ended questions that could lead to an interesting conversation, not fact-based yes or no questions.**

1. The Army barred one of the students mentioned the introduction (Oscar Vasquez) from enlisting because he was an illegal immigrant. Should the army allow people who grew up in America, but may have come over to this country illegally, to enlist?

I think this is a very tough question for a lot of reasons, but it's one I think should be addressed. I think immigrants who were raised as children or teens in America should be able to serve if they want to. There are many in this country

who don't want to serve for whatever reason, which is fine, but there are also willing people who have a heart to fight who can't because of something that was probably out of their control. I personally find that idea a bit hard to swallow.

That being said, I also understand from a security perspective that there may be some people who could potentially join for the wrong reasons, or in some cases for dangerous terrorism oriented reasons. However, an American born citizen could also join for these same bad reasons and would be free to without any hindrance. I think balance is the key: allowing those who have a heart so serve their country to do so, while balancing the risks that the Army would feel about having undocumented citizens in the forces should be something I think we as a country should discuss.

2. Why is judge Lisa Spense's picture of an "industry standard" engineer someone "white, well-educated, [and] wearing conservative clothes?"

I think because that's what she had seen in her 17 years working in NASA. I also think that due to the history of ethnic relations in this country, there's never really been another picture. People who perhaps don't fit that picture have been disqualified or have disqualified themselves because they didn't fit. I think it's important to be diverse without being so overboard that we begin to eliminate people who are well qualified but fit the picture that people might be trying to move away from in the name of diversity. It's okay to fit the standard; it's also okay to be different; just as long as people are being judged by whether they are qualified or not, and not by how they look or where they came from.

I also think that some people who don't fit the "industry standard" really aren't aware that it's a field they could enter into. I'm not sure yet how the students discovered their passion for building this robot, but I'm pretty sure it was not something that consumed their daily thoughts before they were introduced to it. Some people have brilliant minds or have talent in a very specific field, but if they don't have the people around them to show them where they can apply it, they might pass it off as some odd quirk or interest.

**An explanation of your reading process. How did this week’s reading go for you? Discuss specific sections that made you confused or questions that you have about the text. Point out strategies that helped you overcome challenges in your reading. Choose one or two of the following prompts to develop your ideas.**

While I was reading, I wanted to make sure I would remember the characters, locations and dates. I made a list on sketch paper of each character introduced, along with a few drawings and a little bit about them based on what the book brought up. This was a great way to remember each character and how they related to the bigger story. It also made the characters come to life more as the introduction went on. I used a sketchbook so I wouldn’t have to worry about lines, and I could really be creative and put down the names, places, and dates just like my brain would. It was very enjoyable, although it almost took an entire sketch page to jot down everything that happened on the first page and a half! By the end I felt very confident I had gotten all of the vital and interesting information from the introduction. I was also very glad that no new characters were introduced on the final page because my sketch page was getting very crowded!

**3--5 “significant words” from this particular reading—words that you feel are important to understand the text, or that you have decided to learn to develop your academic vocabulary. Define the words you choose and explain why you chose them.**

*Metric system:* The decimal measuring system based on the meter, liter, and gram as units of length, capacity, and weight or mass. It is the standard system of measurement around the world, with the exception of the United States, where the imperial system is used.

*Flip chart:* A pad of 17”x26” or larger paper sheets supported by a cardboard backing and a tripod. Used sheets can be flipped over to reveal new sheets underneath.

*ROV (Remote Operated Vehicle):* A tethered underwater vehicle operated remotely, used for observation or technical work.

I thought these words were important because they give more of a picture to the characters and what they had accomplished. They were familiar with the metric system despite the fact people in America do not commonly use it, and they decided to use the very simple idea of a flip chart to explain the way their vehicle operated. I also thought it would be important to explain exactly what the vehicle was they were building.