

Exploring the Impact of Ongoing Written Correspondence on Student Growth: A Case Study of Ishmael and his eMentor, Steven

MEET ISHMAEL, a sixth-grade student of Mexican heritage who loves his Rubik's cube and notes that math is his favorite subject. Ishmael attends Southeast Middle School in Oklahoma City, Oklahoma.

Over 1300 miles away in San Diego, California, meet Steven Bouchett, a Mission Solutions Architect at Northrop Grumman with over 30 years of leadership in space and defense engineering, who volunteered through his company as a first time eMentor.

Breaking down the barriers of distance and the boundaries of social capital, Ishmael and Steven were brought together as mentor and mentee by TryEngineering Together.

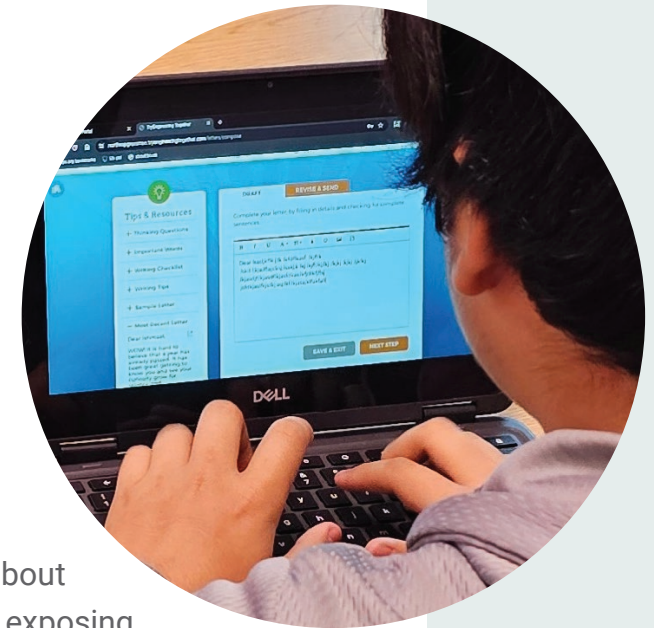
Steven introduced himself with his love for science fiction literature, and Ishmael shared his love of video games and doodling. Their correspondence shows the growth of Ishmael's trust, with Ishmael admitting in his third letter, "I am now liking this eMentor thing! It was great talking to you again!"

Over the course of the academic year, Ishmael and Steven exchanged online letters on a bi-weekly basis,

sharing information about their lives while discussing articles Ishmael and his teacher selected through the STEM eMentoring program.

Steven took the time to write about things going on in his own life, exposing Ishmael to his travels and his work project on laser communications technology, while always keeping up with what was going on in Ishmael's world. The two discussed Ishmael's trouble with feminine and masculine nouns in Spanish, and Steven empathized and encouraged Ishmael to stick with his studies.

Steven nurtured Ishmael's intellectually curious nature, posing questions as they moved through readings sharing their curiosities about a space elevator, 3D printing, bridge making, prosthetics, AI, ChatGPT, patterns, data, sunspots, human space travel, eclipses, and more. Along the way, Ishmael taught Steven about algorithms for solving the Rubik's cube, and the two shared their video game experiences and an intellectual friendship.



An analysis of Ishmael's letters reveals how Steven's correspondence impacted his growth:

- **Academic Vocabulary Usage:** Analysis of Ishmael's letters revealed a notable increase in the use of targeted academic vocabulary throughout the academic year. Initially, Ishmael's letters contained basic language and vocabulary typical of a sixth-grade student. However, as the correspondence progressed, Ishmael began to incorporate more sophisticated terminology relevant to the topics discussed, indicating growth in his academic language skills.
- **Expression of Thoughts about Reading:** As Steven inquired, Ishmael shared his thoughts and reflections on the articles they had read. Initially, Ishmael's responses were brief and focused primarily on summarizing the content. However, as the correspondence continued, Ishmael began to engage in more in-depth analysis and interpretation of the texts, demonstrating improved critical thinking skills and comprehension.
- **Personal Connections and Sharing:** Over time, Ishmael became more comfortable sharing personal experiences and insights with Steven. His letters evolved from simple updates on his daily life to thoughtful reflections on his goals, hobbies, and challenges. This increased openness and willingness to share indicate a growing sense of trust and connection between Ishmael and his eMentor.
- **Responsiveness to Mentor's Questions:** Ishmael's responses to questions posed by Steven demonstrated his engagement and comprehension of the topics discussed. His motivation to respond to Steven sparked an increase in his critical thinking and enhanced his communication skills.
- **Discussion of Future Goals:** Ishmael expressed his aspirations for the future, including his passion for math and his inclination towards exploring mechanical engineering (modeling after his eMentor Steven). This dialogue fostered goal-setting skills and encouraged Ishmael to envision a bright future.
- **Boost in Self-Confidence:** Ishmael's self-confidence was notably boosted throughout the duration of the correspondence with Steven. As Ishmael received empathy, encouragement, and validation from his eMentor, he became more assured in expressing his thoughts and ideas. This newfound confidence extended beyond the written correspondence and positively impacted Ishmael's overall attitude towards learning and self-expression.



In the normal course of events, it's unlikely that Ishmael would have met Steven. Through eMentoring, the two were brought together and Ishmael experienced the significant impact of ongoing written correspondence with an eMentor. Through regular communication with his eMentor, Ishmael demonstrated growth in his academic vocabulary, critical thinking skills, personal expression, and self-confidence.

Steven said, "participating in the TryEngineering Together program has been a truly enriching experience. Through our monthly email exchanges, I've had the pleasure of discussing fascinating engineering concepts with Ishmael. Through our email exchanges we were able to explore how engineers tackle real-world problems and innovate solutions. Beyond the technical discussions, I've enjoyed getting to know Ishmael personally, his love of gaming and getting to learn about engineering. It's rewarding to see Ishmael's curiosity and excitement about engineering grow with each new article and our exchanges."

As we celebrate Ishmael and Steven's journey, we recognize the broader implications of eMentoring in nurturing student potential. By providing a platform for meaningful connection and personalized support, this innovative program equips students with the tools they need to thrive academically and personally.

“ WATCHING ISHMAEL FLOURISH throughout the mentoring experience has been so cool. He started off the year shy and quiet and has grown in confidence—sharing his ideas and answers to the whole class and leading group conversations when working on projects. We have seen Ishmael's growth in other academic areas as well—as noted in his language arts, science, and geography classes!”

—Dru Humphrey
teacher