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## **Writing A Children's Book Series About Software Development**

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### Abstract

My capstone project consisted of creating and publishing a series of three children's books covering topics related to software development. I wrote the books myself and then edited and formatted them on storyjumper.com with some assistance from my son, Maurice Petit.

*Keywords:* software development, educational, careers

### **Section 1: Introduction to your Capstone Project**

I did not choose this project right away. In fact, it was my third attempt at a capstone project and chosen with the assistance of my professor after I lost my job at Truckstop.com and consequently lost my ability to complete my work-related capstone project.

This project doesn't pick up where the last one ended, but it does share the same topic, which is software development. Since I was a software development engineer in test, Professor Sass recommended pivoting and writing a series of children's books centered around software development. At first I was skeptical about her suggestion, because I have never attempted to write a children's book before, nor did I feel "qualified" to do so. But as I began writing the first book I discovered that I enjoyed the challenge of explaining how to become a software developer in an easy to understand way. I also learned how to condense my ideas, focus on the most important information, and explain difficult concepts using analogies. The end result of my project is a series of three children's books relating to software development - *How To Become a Software Development Engineer*, *What Does a Software Development Engineer in Test Do?*, and *What Does a Software Developer Do?*. The series could easily be expanded to include books on other related topics, such as "What Is It Like Being On a Software Development Team?", in the future.

## **Section 2: Elements coming together**

### **Innovative Approach**

This project brought together the perspectives of a young child and an adult software engineer (in this case, me). While there are many children's books available that discuss different types of jobs or careers, this project was innovative on my part because I had never attempted to explain my career or education to a child before, nor had I written a children's book before. This project definitely pushed me out of my comfort zone and demanded that I consider things from a new perspective. According to selfpublishing.com, "The reality is, children's books are the most difficult type of literature to write and produce. You have to engage an adult audience...but you also have to engage the children...Additionally, you only have zero to 700 words to communicate an entire story".

### **Emotional Intelligence**

My project indicates awareness of self because I chose a project that I am capable of doing both intellectually and within the constraints of my current life situation. It also indicates awareness of others because I took great pains to present the information in my books in ways that would make it understandable by elementary school age children.

Consideration of the Audience: Emotional Intelligence

Value to Others: Emotional Intelligence

I believe my approach to writing these books considers the emotional intelligence of my audience because I presented the information in as simplistically as possible. I also tried to use analogies that a broad audience would understand.

My project is valuable to others because my books are meant to encourage the younger

generation to consider software engineering as a career choice after they graduate from school. I tried to make my books inclusive so children from all walks of life would be able to “see” themselves within the stories.

### **Creative Thinking**

When I first started working on my project I attempted to start it the same way I approach most assignments - by conducting research. However, I quickly discovered that researching my topic effectively squashed my ability to think about the subject matter in a creative way, rather than a purely logical way. According to the School of Industrial and Labor Relations Assistant Professor Brian Lucas,

...based on whether you think about creativity through an insight model lens, or a production model lens, it is going to lead you to prioritize these behaviors differently...It's all about the relative prioritization. So let's say you have an hour to do some creative work. You might spend a little bit of time in the beginning doing some background reading, some internet research, or thinking about the problem, and then generating ideas. What we're saying is that if you hold the insight model, you might spend a little bit more time on those preparatory things before you jump into idea generation. And if you follow the production model, you might be a little quicker to jump into idea generation while doing fewer of those preparatory things. (*Creating a Creativity Framework*)

In other words, as presented in Professor Lucas’s paper, I discovered that I needed to follow the production model rather than the insight model in order to approach my project in a creative way. Once I embraced the production model of the creative framework I was able to start generating ideas for my first book, and then subsequently for my second and third books.

### **Your Innovative Solution**

I believe I used an innovative approach to the challenge of writing children’s books about complicated subject matters because I used original and creative thinking to come up with the

different analogies I used in the books.

### **Section 3: Results**

I measured the impact of my project by asking some of my nieces, nephews, and first cousins once removed whose ages fell within my target audience to read my books and provide me with some feedback. I also received feedback from a few adult readers as well. My eleven year old first cousin once removed thought the second book, *What Does a Software Development Engineer in Test Do?*, was the most amusing (L. Clark, personal communication, February 14, 2023). The only feedback for improving the books came from my nine year old niece, who suggested, “you could make the covers a wee bit tiny enie weenie simpler” (M. Nielson, personal communication, February 14, 2023). Surprisingly enough, the only person who found one section in my *What Does a Software Developer Do?* book confusing was the mother of one of my test readers. In *What Does a Software Developer Do?* I had briefly discussed the concept of a “class” in object oriented programming, which she visualized as a “class” in school, causing her to be confused until she looked up the use of class in programming on the internet (E. Nielson, personal communication, February 15, 2023).

The benefits of my project to my stakeholders is that my books should help young children understand (on a very high level) what software developers and SDETs do for their jobs and how they could become software developers themselves; my oldest child will be able to participate in the creation of a book; and I will be able to experience first-hand the process of writing a book for children.

The actual impact of my project is that the Caldwell Public Library has three new non-fiction children’s books to add to their collection, which means the children in my

community will have some resources to check out if they want to learn more about software development/programming/coding; some of my family members were able to learn about what I do for a living (and my mother learned how to correctly pronounce my job title) and the younger ones also learned how they could become software developers, too; and my oldest child was able to participate in the experience of creating a children's book, which in my opinion helped improve their mental health on the days they worked on the books with me.

#### **Section 4: Conclusion**

I anticipated that children age nine and older would be able to understand - and hopefully enjoy - my books. I also anticipated that any adult reading my books would be able to understand the information presented. The actual results confirmed my hypothesis that children in the 4th grade or above can understand and enjoy my books.

Taking into account all of the feedback I received from my initial readers I would expand on my explanation of a "class" in the third book and simplify the cover illustrations of *What Does a Software Development Engineer in Test Do?*, and *What Does a Software Developer Do?*.

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