The very creative book titled, Big Questions from Little People: And Simple Answers from Great Minds by Gemma Elwin Harris, is a gem of its own kind. The book is comprised of questions about science and the happenings of the world submitted by grade school children and answers to these questions submitted by experts of particular fields. This book not only gives rich content through its answers, but it also assumably poses its own question: Do you question the world around you? This book invites you to partake in such a curiously approach to daily phenomena in your life.

October 24th, 2014

Ms. Gemma Elwin Harris,

First and foremost, I would like to thank you for participating in this interview. I found your book to be a fresh approach on teaching students that their questions about the world around them can and should be answered. My students and I appreciate the answers provided in your book as it gives very clear, easily understood information about every day phenomenon. I especially appreciate that this book helps support charity efforts for children! Also, the infographic provided on your website about what kids are really wondering about made me chuckle, because that is a perfect summary of what I experience daily in my classroom of 30 lovely seven year olds and what I love so much about my job. Here are a few questions I have regarding your book, Big Questions from Little People: And Simple Answers from Great Minds:

- **What did you want to accomplish by writing this book?**
    - My initial idea was to compile an anthology of pieces from great thinkers, compiled especially for children. So getting as many big names on board as possible was always the aim and I am very pleased that this was successful. However, In the early stages of developing the book idea I was thinking of approaching great philosophers, scientists, historians, who don't normally write for kids, and commissioning pieces from them on set topics that might interest kids, a bit like you would commission a magazine story. It was only when I started looking for a format that would work best for children and be a lot of fun that it hit me the book should be a Q and A with real questions from kids answered by the best expert for each question. Then of course, once I started getting real questions in from elementary schools, I realized that 70 percent of questions were science questions. I never set out to compile a science book but that's where the kids led me.

- **Have you received attention for this book from individuals or groups of individuals who surprised you with their interest in this topic?**
    - Yes, two art schools in the US have used it to inspire their students to illustrate different question and answers. And one poet in the UK wanted to write a poem for every question. I have also had really great feedback from parents of reluctant readers - because they get hooked on the short Q and A format and enjoy picking

different pages to read at random, plus the fun facts and little illustrations grab their attention. Also I had lovely emails from an organization for the parents of children with autism. Apparently autistic children enjoy non-fiction in particular. The books have also done very well in translation across Asia, although that's not a particular surprise.

- **What were the steps that writing this book involved?**
  - Gathering questions from kids, getting a charity on board, approaching experts to answer from a choice of two or three questions, in aid of the charity. Then editing their answers into shape - some needed editing others didn't.

- **I read on your website that you gathered questions from ten primary schools across the UK. How did the students in this project get selected (age/grade level, etc)?**
  - It wasn't that scientific - the publisher, myself and the children's charity all approached schools that we had links with or were local to us, and this gave a pretty good spread across the UK. They were all primary schools, so age 5-11. I also had some questions sent in from Facebook contacts - friends with kids younger than primary age as I wanted some younger questions too (3 to 5). By the second book I had a database of more than 6,000 questions. They weren't selected, the head teacher just gave out sheets I had prepared for kids to write their questions on, and I included all the best and funniest questions, plus all the ones that frequently occurred in my survey (Why is the sky blue? etc).

- **Can you give me some information about the demographics of these particular schools?**
  - They was a real range - some inner city schools with a high percentage of non-mother tongue English immigrants, a Scottish primary in Edinburgh that was very white middle class, a few country schools in South-West England, one private primary school full of quite privileged children.

- **How did you gather answers from experts? How did you choose which experts to ask?**
  - I researched the best possible person I could find to answer each particular question, and approached them with that particular question, so it was a very personal and precise approach. Most of them have world-class expertise in the specific topic, so Richard Dawkins was sent a few questions on evolution; David Attenborough on discovering new species of animals, and so on. There are a few experts in broader topics who I knew would write particularly well for kids or

were particularly funny, like the science writer Mary Roach, so those people were always on the list and I just waited for the perfect question for them to come in from the kids.

- **I'm sure you had a lot of questions and answers submitted, what criteria determined what material made the book?**
    - My main criteria was: as a reasonably well educated parent could I answer the question easily for my child? If the answer was No, it went in the book. Some questions you think you know the answer to but when you try to answer it for a kid, you find the topic is actually really difficult to explain or you only remember half the info from your own school days.
    - I had a massive database of more than 6,000 questions gathered from school children and I sorted them by topic according to children's common preoccupations, e.g. space, animals, the body, nature (I sorted by three topics, as many intersect. e.g. If a cow didn't fart for a year then did one big fart would it fly to the moon? That went under animals, space and biology. With this database it was easy to find the most common questions - I wanted to cover all the ones that were most asked (Why is the sky blue? Who is God?) as well as the funny, rare questions that showed how children think outside the box and how inventive they are. Like "If a cow didn't fart for a whole year then did one big fart, would it fly into space?"

- **I'm curious to hear about your conversations with the experts. How were you able to have experts, who usually talk very scientifically, be able to articulate these complex answers in a way that younger children were able to understand?**
    - Most experts were approached by me by email, and filed their pieces by email. For the celebrity experts, I was in contact with their agents, so there weren't many "conversations" as such. How did I get them all to write for kids? When I asked experts to write their copy I encouraged them to 'tell a story as if talking to a bright and curious eight year old'. I encouraged them to go off at tangents or use the first person (when I was your age…) to make it conversational and fun. On a few occasions, where experts weren't accustomed to writing for kids and the tone wasn't quite there, I made some suggestions to improve the pieces for children and found the experts were very happy to do this.

- **If a teacher was given your book as a part of their curriculum, what suggestions do you have on how teachers can integrate your book into the teaching and learning that happens in classrooms?**
    - I've heard from teachers that reading out the Q and As from the book is a very useful and engaging way into a topic at the start of a lesson. Plus kids can add their own questions to the mix. I have also heard of the book being used in school assemblies, for a Big Questions week where a different question and answer is read at the start of every day.

- I think the book would make great online content, maybe animated, and that could be arranged by grade level and topic. I like the idea of linking the topics like they do Ted Talks online - so you could be reading the answer to, "Do monkeys and chickens have anything in common?" Also, you'd get suggestions for other content relating to evolutionary biology, or atoms, etc.

- **From reading your website, I know this project originated from an experience on Facebook and continues with submissions of questions using Twitter. How important has the role of social media been with your project?**
  - Social media was the start of gathering questions before I went out to schools, and certainly quite a big part of the Publicity campaign for both books. The contributors who had high social media followings, like Bear Grylls, Derren Brown, Richard Dawkins, Stephen Fry, and also Maria Popova from Brainpickings.org who reviewed the book and loved it, and then contributed to the second book, have been extremely helpful. The children's charity in the UK that benefits from the books also had their social media department promoting the books.

- **Are there any aspects of the book or the process that you are approaching differently for books in the future?**
  - For these particular books, I can't think of anything I'd do differently.

- **Do you have any other information that you would like to provide about your book or the process that you feel would be beneficial to the efforts being made to enhance STEM learning in classrooms?**
  - I really flunked sciences myself when I was at school and I just didn't get that scientific facts could be fun. I look back on how I was taught and it was very formulaic and lacked imagination. I think if teachers approach these subjects with imagination, and above all, with relevance, to the way children think and what they want to know about, there would be no kids saying science is boring. I'm glad I'll be able to enthuse my own children with these books.

The answers to this interview will be used through my urban STEM fellowship within Chicago Public Schools and Michigan State University. We are creating a projects around our efforts in becoming well-rounded educators with a strong focus in STEM initiatives. These efforts will be shared with colleagues as my cohort becomes STEM leaders within my district. Your participation has a great impact on this process and I thank you for your time!

Sincerely,

Ashley Keine

2nd Grade Teacher
Shoesmith Elementary
Chicago, IL, U.S.A
email: ankeine1@cps.edu

Book Review

When approaching this assignment, I wanted to find one of two things. Either, I wanted to find a piece of professional text that would help enhance my learning around STEM initiatives, or I wanted to find a text that I would use with my students in instruction. With the book, Big Questions from Little People and Simple Answers from Great Minds, I found not only a resource to use within my classroom, but I discovered an idea to use with my students as a way of pedagogy.

When reading the book for the first time, it seemed like a simple concept; children asked questions and experts answered them and all were combined to form a book. The questions ranged from simple, every day questions such as, "How do chefs get their ideas for recipes?" to silly ones like, "Why do monkeys like bananas?" to more complex ones where the answer is not easily described such as, "What is gravity, and why is it not found in space?." Whatever the question, the curiosity was extremely genuine. This book truly displayed children's unique inquiry about the world around them. What was more impressive, were how simplistic the answer to these complex questions were answered so that students at a grade school level could comprehend.

When interviewing Ms. Elwin-Harris, I could immediately tell she was a very genuine, down-to-earth person, with a fabulous sense of humor. I feel like one has to in order to create a book like this, because kids can say the darndest things. The story she told about how the book came to be was so simple yet so inspiring. She took a small moment on Facebook, where a child asked a question to their parent that couldn't be answered so they posted into the Facebook world looking for the answer. Us, as teachers, we know our students are filled with questions. And sometimes we have the answers, while other times we do not. This project opened the doors to allow students to have their questions answered by those who as knowledgeable in that subject. So knowledgeable in fact, that they were about to express the phenomenon in simplistic terms to be understood by all.

This process was an interesting one. I enjoyed diving deeper into a text to see its true makings. I was interested to understanding to behind-the-scenes of how this book was created and how this project came about. Speaking with Ms. Harris, I feel very inspired to pluck something simple out of my daily life and turn it into something bigger than itself. I also appreciated the motivation it gave my students to question the world around them, and create projects of their own. Interviewing the author was very helpful in understanding more about the book and its purpose.

Another remarkable part of this book is that it created a project for teachers, students, experts, and the community. Proceeds from the book went to a local charity that offered assistance to children. To this day, students are still submitting questions on Twitter to be included in books to come. This book has supported the notion that students should never stop questioning the phenomenon around them. It propels curiosity and helps connect real world situations to their explanations. It also gives teachers several resources. First, one could use it as a read aloud text to keep science interesting and fun and a moment within each day. Also, teachers could encourage students to ask questions of their own to submit on Twitter towards this project. Finally, it gives teachers an idea to implement into their own classroom that allows students to ask questions they have about the world around them while teachers can make connections to resources for their students to attain the answer. I would highly recommend this book for all grade levels to be used to enthuse students around questioning and discovering the world around them.