**Improving Female Science Scores Through STEM Curriculum**

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**Background:**  
- Science, Technology, Engineering, Mathematics (STEM) is an integrated curriculum that focuses on higher level thinking (2013, Basham & Marino)  
- Focuses on real world application, career skills and information on careers  
  - This utilizes the Engineering Design Process  
- In the USA we rank 25th in mathematics and 17th in science (2013, United States Department of Education)  
- Increase of STEM Careers each year  
- Gender roles and self-efficacy plays a role in females thinking about success in STEM  
- New curriculum calls for an integrated and real-world application

**Survey and Results:**  
- A survey among Dayton Area Middle School (5th-8th grade) mathematics and science teachers was conducted  
- Teachers took a short survey that focused on their teaching methods and how their males and females view their subject  
- Teachers found that females enjoyed the hands-on activities and males enjoyed the problem solving. Both genders enjoyed team work.  
- Approximately 25% of female students said science was too hard  
- Approximately 50% of female students are interested in pursuing a degree in STEM  
- Approximately 75% of female students are active in the lesson

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**Do you feel your female students are actively involved in your lessons?**

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**Conclusions:**  
- Females are more active in class  
- Increased interest in STEM Careers  
- Females breaking out of stereotypes  
- Ties into current curriculum