

# Global Challenges in K-12 STEM Implementation

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# Our view of STEM...

- Where we began in the 1980's = **STEM**
- Where we are headed = **iSTEM**
- Still to be resolved: **Interdisciplinary**

Or

**Integrated**

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# Global Challenges in Implementing STEM...

- **Influential factors at work:**

- ✓ Cultural norms – especially gender norms

- ✓ What should be learned (mix of knowledge & skills)

- ✓ Pedagogical approaches:

  - Constructivist* (problem-based learning; project-based learning; scientific method; design thinking); and/or

  - Didactic* (lecture)

- ✓ Accountability policy – “*What gets measured, gets done!*”

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# Global Challenges in Implementing STEM

Influential factors at work:

- ✓ Renewed emphasis on the “whole child” & “pastoral care”
  - ✓ Career planning for students (“College & Career Readiness”)
  - ✓ Teacher preparation (Competing demands for increased content knowledge and a broader range of teaching strategies)
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*I hear and I forget.*

*I see and I remember.*

*I do and I understand!*  
Confucius