NRC/MIT meeting: Online Learning + Career and Technical Education(CTE)

Marshall S Smith

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Facts about CTE

- 90% High school grads take least one CTE course
- Large percentages in 2 year– some 4 year colleges.
- CTE online courses big market – Pearson released 21 last year.
- Community Colleges – WGU – Coastline hundreds, Armed Forces etc. millions of students online many in CTE areas. 1000s of businesses around the world.
- All over developing world – COL Small Islands

Other Initial considerations

- Compared to effectiveness of typical instruction – online courses for CTE apparently as successful -- a few studies

- Huge potential variation in scope and complexity of content within courses – conceivably greater than for typical college courses.

- Can only expect that demand will grow as will quality and effectiveness

MIT Recommendations: implications for CTE (1)

- Online as facilitator – as a "dynamic digital scaffold." Provides a useful frame for designing online work to support learning.
- Supports Role of live Coach/Teacher -- models of blended learning -
- Supports Peer interaction -- collaboration, PBL
- Chunking – with formative assessment-- length will vary with content, learner, motivation.
- Plug and play platforms -- support chunking -- interspersing instructional modes with assessments - using OER.

MIT report recommendations implications for CTE (2)

- Learning Engineer – Creative professional bridging CTE and technology. ADD

- Improvement Science Engineer – Designing for change -- for big effects -- used for healthcare (IHI) – Carnegie Foundation for community college development courses.

- Develop networks of practice -- Foundations could support.

Examples of unusual types of online courses that could fit CTE

- Carnegie Mellon – OLI – AI, adaptive, requires no teacher.

- Monterey Institute multi-media courses- no teacher.

- 30 minute modules for learning blocks of material.

- Move toward constructivist approach. Maker modules. Learning by researching and creating.

- High powered AI with strong adaptation -- simulation of personal coaches – IT Acuitus. Potentially algebra.

- Design Open Education Resources -- platforms and highly effective modules to support and scaffold CTE.