QEP Recommendations for Effective and Sustainable Faculty Development

1. Professional development must be faculty-led

   a. Everyone should have a voice (and be HEARD).

   b. Offer faculty a choice of topics for professional development events, or allow faculty to share anything that may be useful.

   c. Capitalize on intrinsic faculty motivation; recruit champions/mentors based on interest.

   d. CTLE has a service-oriented role (coach motivated faculty to reach their goals).

2. Professional development must foster trust and peer support

   a. Encourage, but DO NOT FORCE faculty to adopt strategies they personally do not (yet) buy into (implementation will fail).

      (Consider following a Project Ownership strategy: http://www.lifescied.org/content/13/1/149.full.pdf+html)

   b. Professional development environment must be non-threatening, respectful, and collegial; unfailingly respect diversity in teaching experience and opinion, even if it goes against the literature.

   c. Heed the three F’s: Fun, Fellowship and Food are essential for sustainability and scale up.

   d. Encourage (model) sharing of successes AND failures.

   e. Meet regularly to share ideas (Science Education Journal Club) and tried-and-true materials and methods (Camp INSPIRE).

   f. Encourage low-threshold MUTUAL classroom visitation.

   g. For experience participants, consider publicizing and training in A&C protocols such as:

      • COPUS: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3846513/
      • PORTAAL: http://www.lifescied.org/content/14/2/ar23.abstract

   h. Be respectful of (and reward) faculty time.

   i. Make sure faculty have access to an inviting, comfortable faculty lounge.
3. **Professional development must be discipline-based**
   
a. If you want to involve (biologists) it has to involve (biology).
   
   For an existing CTLE model see: [http://cmns-tlc.umd.edu](http://cmns-tlc.umd.edu)
   
b. Exploration of discipline-specific content-driven pedagogy inevitably creates faculty demand for content-free pedagogy.
   
4. **Professional development must encourage test-driving a change in routine**
   
a. Share science education research results to justify proposed intervention.
   
b. Start small: focus on a portion of a lesson, a chapter, or a single lesson plan rather than a whole course.
   
c. Stress the iterative nature of change. Polish to perfection, then move on to another part of the course.
   
d. Avoid creating add-on experiences; emphasize experimentation with alternate (more effective?) teaching strategies. Only an invasive experience will trigger a true lesson plan overhaul.
   
e. A common experience (QEP module) is efficient, and builds peer support and a way to compare strategies and results.
   
f. Offer a user-friendly starting point (e.g. a consensus lesson plan with suggested prompts) for personal adaptation.
   
g. Consensus lesson plans that are developed in-house by trusted colleagues carry greater credibility (we KNOW our student population), and encourages adoption by peers.
   
5. **Professional development must model the desired learner-centered strategy**
   
a. Share good ideas through engaging, active & collaborative activity, NOT through top-down lectures.
   
b. Faculty must be able to FEEL the intervention for themselves, not merely hear it or see it.
6. **Professional development must augment physical conditions that are conducive to learner-centered teaching**

   a. Make sure faculty have ALL the basics: whiteboard markers, whiteboard erasers and cleaning fluid, working projectors, working copiers, working printers, working lab equipment and supplies, adequate IT instructions or troubleshooting cheat sheets.

   b. Use the Vanguard rooms to encourage test-driving and sharing of single, different lesson plans.

   c. In regular classrooms, make sure desks can be grouped and that each group has access to plenty of whiteboard space (whiteboard paint on all walls?).

   d. Install Grademaster (scantron) scanners with Datalink software for easy faculty access.

   e. Stock a faculty lounge with creative resources such as colored index cards, colored sharpie markers, laminators and laminator sheets, paper cutters, Stanley knives and cutting boards, small portable whiteboards, lego blocks, buzzers, other craft materials etc.

7. **Faculty development should foster a culture of sustained and successful implementation**

   a. Stress the importance of failure and iteration.

   b. Create a repository for tried-and-true HCC lesson plans with a star rating system for students and faculty (e.g. QEP OER collection in LibGuides)

   c. Offer modest implementer stipends in exchange for data and sharing.

   d. Offer public recognition at the hiring levels of administration and/or offer stackable online badges (e.g. on the Learning Web). Try a gaming mentality. Use the three F’s!

   e. Integrate personal implementation goals and/or EGLS3 goals into the PEP

---

**Please note:** The QEP lessons we learned at HCC echo the recommendations found in the literature. For examples see:

- *Diffusion of Research-based Instructional Strategies: The Case of SCALE-UP:* [https://tinyurl.com/SCALE-UP-Diffusion](https://tinyurl.com/SCALE-UP-Diffusion)
- *It’s Personal: Biology Instructors Prioritize personal over Empirical Evidence in Teaching Decisions:* [http://www.lifescied.org/content/14/1/ar7.full](http://www.lifescied.org/content/14/1/ar7.full)