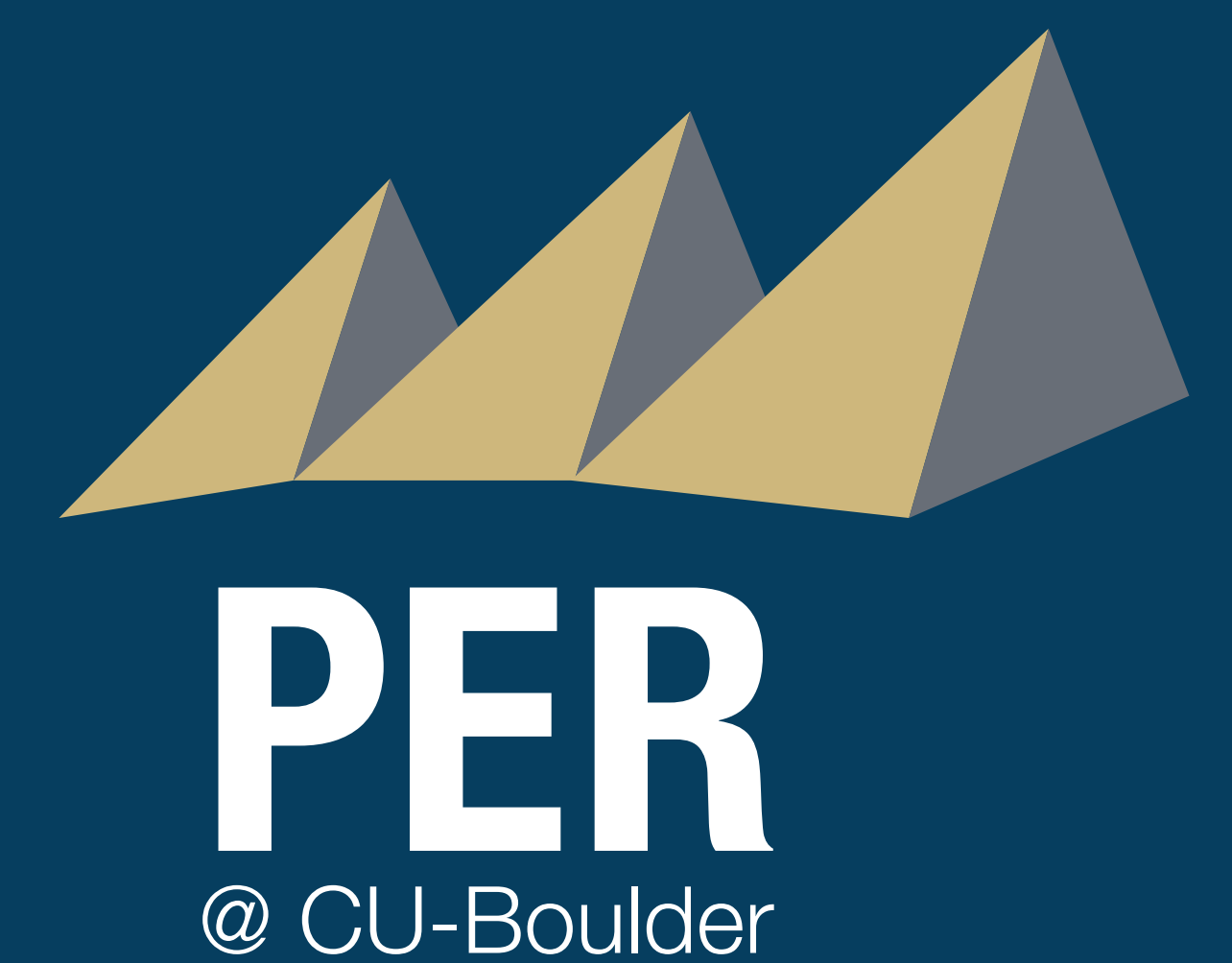


Faculty Online Learning Communities to Support Physics Teaching

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SUMMARY

In conjunction with the Physics and Astronomy New Faculty Workshops (NFW), we are investigating mechanisms to further support faculty to improve their teaching by offering virtual Faculty Online Learning Communities (FOLCs). The goal of a FOLC is to develop a community of self-reflective teachers who can support each others' long-term growth as educators. Pilot results indicate this model can help faculty implement and sustain reformed teaching practices.

THE PROBLEM

Many faculty return from the NFW eager to integrate new research-based instructional strategies (RBISs) into their classrooms, but they **struggle and subsequently revert to traditional instruction.**



FOLC AS A SOLUTION

A FOLC is a virtual faculty group that engage in an active, collaborative, year-long series of activities designed to enhance participants' teaching. Offering FOLCs after in-person workshops is a **new approach to faculty development** designed to provide ongoing support to implement RBISs.

Pilot FOLC details:

- ▶ One semester (spring 2015)
- ▶ Nine faculty from same NFW
- ▶ Eight 90-minute “synchronous” meetings
- ▶ Facebook-like platform for “asynchronous” communication
- ▶ Externally facilitated

BENEFITS

Discussing their teaching with others not from their home institutions

“People seem to be reasonably candid about what is going on in their departments which seems like a nice advantage of an online but private community ... It's a way of saying what is going on in another department without having to be super political and polite and not piss anybody off.”

Learning more about RBISs

“[The FOLC is] an extension of the [NFW that allows] us to focus on the topics that we're most interested in or maybe have the most concerns about.”

Quick, low-effort feedback

“I like having the [asynchronous] system because I don't feel like I'm bothering anyone when I ask questions that way ... I'd be a lot more hesitant to pick up the phone and call somebody.”

Community of mutually supportive peers with whom they felt comfortable

“I feel like I'm able to go to the group when I have a question or when I have a need and they might be able to give back, but I also feel like there's an opportunity to give back to them as well.”

“It takes a certain amount of willingness to be vulnerable to ask questions ... The fact that [the FOLC is] informal makes it more comfortable for me because it makes me feel like I'm with peers.”

Helped them to stick with changes in their classroom

“It made me more confident about pushing through some of the changes that I was trying to make ... because I know I can go back to FOLCs and say, 'I'm trying to do this. It didn't work. What do you suggest?' ... [The FOLC] gives me support ... for staying with it and figuring it out.”

CHALLENGES

Building a sense of community

“Sometimes I am interested in one specific problem and maybe I am the only person that [is]”

“I'm not really an online person ... I'm not used to typing out my thoughts and feelings”

Participants joined with different expectations

Community (gaining knowledge about teaching from each other) vs. information gathering (gaining knowledge from perceived experts)

Scheduling

Differing institutional schedules (e.g., semester vs. quarter systems), makes scheduling difficult over an academic year.

P1. A FOCUS ON DISTRIBUTED EXPERTISE AND GROUP LEARNING

- ▶ Biweekly meetings for two semesters
 - ▶ 1st: Learn about RBISs
 - ▶ 2nd: Implement and study a reform
- ▶ Meeting time focused on participant teaching concerns/successes

What structures encourage group learning and help participants see each other as experts?

P2. DEVELOPMENT OF A STRONG COMMUNITY

- ▶ In-person interactions at NFW
- ▶ Synchronous meeting platform that focuses on faces
- ▶ Asynchronous communication platform that focuses on conversation/relationship-building

How can a FOLC build a robust community that lasts beyond the synchronous meetings?

P3. SUPPORT FOR IMPLEMENTING RBISs

- ▶ Informal peer discussions about RBIS implementation
- ▶ Formal presentations by RBIS practitioners

What balance between discussions and presentations best supports participants in implementing RBISs?

DESIGN PRINCIPLES

P4. RESPECT FOR THE TIME OF PARTICIPANTS

- ▶ Facilitation that ensures FOLC activities reflect participants' needs
- ▶ Future facilitators drawn from past FOLC participants

What FOLC activities do participants perceive as valuable uses of their time, and do they reduce the time required to adopt a RBIS?

P5. TRANSFORMATION OF PARTICIPANTS INTO LEADERS

- ▶ Participants share experiences and answering questions, eventually self-identify as educational leaders.
- ▶ FOLC participants become leaders in spreading RBISs to their own departments

How can the FOLC support participants in becoming facilitators and educational leaders?

P6. INFRASTRUCTURE THAT IS SCALABLE AND SUSTAINABLE

- ▶ Growing body of potential facilitators
- ▶ Indefinite continuation of asynchronous communication

What structures are necessary to achieve FOLC sustainability and encourage participants to identify with their FOLC cohort?



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