

Report on a Pilot to Support Student Peer-Mentoring Groups

David Andersen¹, Laura Black², Larry Gottschamer³, Luis Luna-Reyes¹, Krystyna Stave⁴

Abstract

This paper reports on an effort in early stages to disseminate peer mentoring groups more broadly throughout academic and practitioner members of the System Dynamics Society. Several people with experience in a robust peer-mentoring group volunteered to serve as a “friendly voice” in students’ peer-mentoring groups formed at the Student Chapter meeting at the July 2016 International System Dynamics Conference in Delft.

¹ University at Albany; dfandersen@albany.edu and lluna-reyes@albany.edu

² Montana State University; lblack@montana.edu

³ University of South Florida; lgottschamer@gmail.com

⁴ University of Nevada Las Vegas; krystyna.stave@unlv.edu

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Background

Having met biweekly or weekly as peer-mentoring collaborators for more than 5 years, members of the “Thursday Group” (named so to help us remember when we agreed to meet) wrote a Notes and Insights reflection paper for the *System Dynamics Review* on benefits we experienced from peer mentoring (Richardson et al., 2015). We included descriptions of our ground rules and basic processes as well as some outcomes, in hopes of encouraging others to form similar collaboration and research-support networks with system dynamics colleagues.

Some of the Thursday Group’s members’ reasons for participating include:

- Soliciting constructive feedback on early-stage research ideas, models, and papers;
- Staying current and flexible on system dynamics, even though no local colleagues use system dynamics methods;
- Retaining focus on research, even though one’s local environment places less value on research activities;
- Regularly enjoying collegial friendships forged originally through conference interactions, rather than reconnecting only annually;
- Being part of a friendly support network that aids navigating ups and downs of research, system dynamics modeling and analysis, teaching innovation efforts, etc.

Changing Society Demography?

The System Dynamics Society demography is changing, or perhaps we are becoming more cognizant of and more focused on addressing demographics that have always been present. The Ph.D. Colloquium organizers in 2016 invited 70-plus Colloquium participants to complete a survey on a variety of issues, including whether they identified as self-taught in system dynamics. With a 20-plus percent response rate, more than 40 percent of Colloquium participants identified as having no on-site faculty having system dynamics expertise.

At the Student Chapter meeting at the 2016 conference, with some improvisation, 25 students formed 5 peer-mentoring groups and have met since (usually via electronic means) with

regularity. The stated intent in forming these groups was to help each other increase system dynamics competency in their respective research endeavors, which, for the most part, are based in degree programs where system dynamics is not centrally practiced or substantively included in the curriculum.

Peer Mentoring versus Traditional Instruction

While peer-mentoring is not a substitute for instructional training by experts, research suggests that talking with people of like-levels of skill can provide significant benefits:

- An organization achieves highest levels of expertise when accumulations of knowledge on either side of a boundary are relatively balanced (Black, Carlile, Repping, 2004).
- Learning grounded in relationships and emerging through dialogue is more effective than traditional forms of mentoring or training (Bokeno and Gantt, 2000).
- Because knowledge is socially constructed (Berger and Luckmann, 1966), recognizing a “contribution” to scholarship is inherently a social process (Richardson et al. 2015).

Piloting an Approach to System Dynamics Support

During the 2016 conference and again subsequently, some members of the “Thursday Group” discussed the possibility of offering encouragement and support to the student peer-mentoring groups. One conversation identified issues including:

- a. Concerns that we would introduce inadvertent conflicts with students’ real supervising faculty or committee members;
- b. Concerns whether people should even attempt to learn or use system dynamics without access to intensive, skilled tutoring and commonly accepted best practices;
- c. Desires to help those whose efforts evoked memories of our own struggles to obtain instruction in system dynamics;
- d. Concerns that we could not devote sufficient time / focus / expertise to be truly helpful to students without on-site system dynamics expertise
- e. Concerns on whether system dynamics as a methodology can thrive if the Society or individuals do not take steps to help those seeking to learn in a variety of circumstances.

After discussing these concerns with the President of the Student Chapter, he shared this email (excerpted) among five student-peer-mentoring groups and four “friendly voice” volunteers.

We have an opportunity for senior level SD practitioners to join student peer-mentoring groups. However, the experts willing to adopt a group (basically members of David and Laura's own peer mentoring group) are already too busy, have concerns about taking on another 5 graduate students, and want to avoid conflicts with student's advisors.

I think we can make this work by limiting the amount of time the experts spend. This means they are active during the meeting and aren't required to read materials sent beforehand. The initial commitment to a group is a pilot program and will only last the rest of this semester. We can collectively decide if it's working or not at the end of the pilot.

The expert sitting in on the group should be considered a 'coach' instead of a mentor or advisor. These imply a much deeper relationship they may not be able to commit to. Also, students are responsible for making sure any advice/feedback/criticism from the expert is acceptable with their advisor.

With agreement to these ground rules for a “pilot” to last from January through May, four volunteers were matched to four student-peer-mentoring groups based primarily on the volunteers’ schedule opportunities for joining in already-ongoing peer-mentoring meetings. Together with students, members of peer-mentoring groups, and other practicing system dynamicists, we intend to discuss these experiences, along with benefits and concerns we experience, at the 2017 International System Dynamics Conference.

Assessing the Pilot, Continuing the Conversations

In May 2017 we conducted focus group of both peer-mentoring group participants and “friendly voice” coaches to elicit benefits and concerns related to this pilot effort. Some of the highlights include the following.

Students’ Perceptions

Concerns

- How to reduce scheduling issues, among students and between students and “friendly voice”
- How to ensure consistent meeting attendance by students

- How to address fact that meeting attendance not always support by advisors in non-SD discipline

Benefits

- “I found [the “friendly voice”] inputs really helpful”
- “Voice (and resources) were invaluable”
- Questions, suggestions, support and constructive critique...and laughter
- “Don’t go!” “If you can re-join later...that would be fantastic.”

“Friendly Voice” Perceptions

Concerns

- How to manage expert’s role / time investment in group; how to set expectations with students
- I Wish I Knew I could be helpful even if I feel inadequately knowledgeable of students’ projects
- How to get students to be consistently organized about who presents when
- How to handle students’ not being skilled at managing discussion to make sure presenter focuses on question for group

Benefits

- Sometimes could prevent students going down “rabbit trails” in writing
- “I *really like* the students in my group.”
- Student commitment, enthusiasm
- “Some of them are quite advanced in their research and SD skills. Very happy to see these up and coming talents in our field!”

At the 2017 International System Dynamics Conference (Tuesday at 3:30), we will facilitate a session focused on peer-mentoring groups and perhaps other approaches to supporting system dynamics competency particularly among those students—but also perhaps other academics and practitioners—who do not have local access to system dynamics expertise.

References

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