The C-Model – Terminology Matters

Consulting a variety of dictionaries and publications, common elements of these terms were identified:

Contract: An arrangement of action to fulfill an obligation. Agreement is formalized to <u>carry out certain actions and produce certain deliverables in exchange for some agreed upon benefit or resource (e.g., funding). This type of relationship represents a set of expectations, such as one party requests and the other does and delivers for some agreed upon value/benefit. Expectations for each party and details are usually reflected in a formal, stipulated, and time-limited document. When the contract is done, engaged parties typically go their separate ways because the need and the benefits have been achieved.</u>

Cooperation: Two or more individuals/groups <u>agree to not compete and to work toward a shared interest or goal with each using their own resources and proceeding in their own direction, but in cooperative ways. It is an informal, cordial, and supportive relationship, but not one specifically targeting mutual commitment to or learning from each other. Another example of this type of relationship exists with projects that are funded as *cooperative agreements*. In such instances, multiple, related projects are funded, with the expectation of sharing experiences and results, and sometimes, agreeing to participate in coordinated (see below) activities (e.g., inquiries, developments) proposed by the funding agency.</u>

Coordination: A more formal relationship than cooperation when one team has a primary role/responsibility and resources for a research or scholarship project. Participation from other sites is sought to increase sample size, enhance generalizability, and/or achieve some other desired attribute or goal of the project. In such instances, coordinated sites may not have to draw on their own responses, in part or completely. Coordinated relationships include specifying roles and responsibilities, tasks along a timeline, and protocols for implementation toward a common purpose and outcome.

Collaboration: This term reflects the <u>commitment to each other in achieving shared goals</u>. Collaboration is often described as a <u>state of shared interests</u>, <u>work</u>, <u>and actions</u> for which a number of individuals/groups contribute individually toward achieving efficacy of the whole and the targeted goals/outcomes. That is, they <u>achieve better results together than on their own</u>. Individuals (or groups) come together <u>because</u> they recognize common interests, needs, or desire to seize a similar opportunity. They mobilize people and resources, develop a shared vision, seek support and the involvement of specific others, and choose an effective group structure for deciding and achieving their shared work. They work to build trust among themselves and develop learning opportunities for members.

Partnership: This term is often described as reflecting <u>strong commitment</u> to not only gather individuals with shared interests, needs, and desires for opportunities, but that such a relationship is characterized by an expressed or implied commitment to <u>combine</u> assets to accomplish a common goal that is typically represented in a formal, binding agreement.

Collaborative Partnership: This term couples the explicit commitment to each other and to shared goals, with agreement to combine assets, mutually manage such assets in pursuit of shared outcomes. Partners also agree to a specific, more formal collaborative process of working together, learning from each other, and making decisions. This category also includes specific types of partnership, such as research-practice partnerships in education (e.g., educational researchers – educators to facilitate research results translated to improvements in practice and vice vera) and practice-based research networks (e.g., AMA ISTEP: Innovative Strategies for Transforming Education of Physicians (2007), Educational Innovations Project (EIP – ACGME Internal Medicine Residency Review Committee, 2006), and Emergency Medicine Educational Research Group (EMERGe, 2012 – EM training programs).

Each of the types of relationships and processes can be applicable and desired for different circumstances. The key is to know what you want up front and to recognize when there may be changing needs or opportunities to switch to a different relationship.

CRITICAL FEATURES/CONSIDERATIONS:

- **Step 1 Identify Potential Collaborators:** Starting at the top of the graphic (#1), identify the primary purpose and specific goal(s) or research question of your educational scholarship project. What are your secondary purposes, goals, questions? Next think about the type of individuals or groups with whom you need or want to collaborate to achieve those goals. Give serious thought to specific individuals to invite to join with you/your group and why.
- **Step 2 Make Initial Contacts:** Plan purposefully how to make contact and open communications. For example, do you have sufficient shared interests and needs and desires to work together to even consider taking this to the next step? How might you approach the individual(s) and plan the first encounter/introduction.
- **Step 3 Take Stock**: What do you/your group have to offer that would be valued by others. Also, consider and the extent to which the potential collaborator/partner (individual or group) can contribute to meeting you/your group's needs and interests. Is there enough mutual benefit and affinity to make this worthwhile to pursue. To a degree, there is a bit of "chemistry" that is important to sense. Just having complementary expertise, resources, and skills is not enough. People have to be able to work together and get along, personality and style-wise at least to some degree, if this is going to be productive, enjoyable, and long-lasting.
- **Step 4 Achieve an Initial Good Fit**: If you've gotten this far, then it is time to identify initial parameters and agreements how to get an initial "good fit" to try out the relationship. This might be accomplished with a "first step" of designing an initial project to focus on together perhaps a literature review (if one has not already been published) or to design and pilot a particular teaching method/innovation or instrument before incorporating it into a study. This could provide mutually valued benefit and incentive (e.g., perhaps submit the teaching resource MedEdPORTAL for publication).
- **Step 5 Drill to Details**: Working out the details as to who will do what, when, and how and who will take the lead is where the details matter. This is an important step to achieving the "first project" and to examining if you can mutually achieve beneficial processes that are effective, worthwhile, and viable for longer term work together.
- **Step 6 Put into Practice**: Implement the project, monitor, keep communications open, expect missteps and be ready to identify and make mid-course adjustments in processes, and in how you communicate and work together.
- **Step 7 Refine for** *Best Fit:* Use what you learn from Step 6 to refine the collaborative process for operations, communications, and decision-making. This debriefing and exploration of how to make working together better and productive leads to future success. What would you do the same in the future? What needs to change if you are going to remain collaborative? A good job at this step will lead naturally to Step 8.
- Step 8 Evaluate and Reflect: At this step, you evaluate the overall experience, reflect on pros and cons and together decide regarding continuing to develop the relationship or to part ways cordially and collegially. If you decide to continue, then you will likely be able to shorten the cycle by returning to either Step 2, 3, or 5 to begin again. If you decide to part, then you may have suggestions for each other about other potential collaborators or partners to whom you might approach and you've probably learned a lot in this initial process about what you desire, need, and can do to enhance the next collaborative relationship that you might pursue.

Your notes and reflections:

The C-Model Components and 8-Step Approach to Practical Application Supporting References and Suggested Reading

Amabile TM, Patterson C, Mueller J, Wojcik T, Odomirok Pw, Marsh M, Kramer SJ. Academic-practitioner collaboration in management research: a case of cross-profession collaboration. *Acad Manage J* 2001;44:428-31.

Bammer G. Enhancing research collaborations: three key management challenges. Res Policy 2008;37:875-87.

Bridges DR, Davidson RA, Odegard PS, Maki IV, Tomkowiak J. Interprofessional collaboration: Three best practice models of interprofessional education. *Med Ed Online* 2011, 16: 10. Available from http://www.med-ed-online.org.

Chamberlain LJ, Wu S., Lewis G, et al. A multi-institutional medical educational collaborative: Advocacy training in California pediatric residency programs. *Acad Med* 2013;88:314-321.

Coburn CE, Penuel WR. Research-practice partnerships in education: Outcomes, dynamics, and open questions. *Educ Researcher* 2016;45(1):48-54.

Committee on Facilitating Interdisciplinary Research, Committee on Science, engineering, and Public Policy. National Academy of Sciences, National Academy of Engineering, and Institute of Medicine of the National Academies. Facilitating Interdisciplinary Research. Washington DC: National Academies Press 2005. http://nap.edu/catalog/11153.html. [Accessed November 20, 2019.]

Cummings JN, Kiesler s. Collaborative research across disciplinary and organizational boundaries. *Soc Stud Sci* 2005;35(5):703-22.

Czajkowski J. Success factors in higher education collaborations: The collaboration success measurement model (Doctoral dissertation, Capella University, Minneapolis). UMI ProQuests Digital Dissertations 3226184.

Eigenbrode SD, O'Rourke M, Wulfhorst JD et al. Employing philosophical dialogue in collaborative science. *Bioscience* 2007;57(1):55-64.

Gardner D. Ten lessons in collaboration. OJIN: The Online Journal of Issues in Nursing. 10(1), Manuscript 1.

Mebane DJ, Galassi JP. Variables affecting collaborative research and learning in a professional development school partnership. J Educ Res 2003;96(5):259-68.

O'Sullivan PS, Stoddard HA, Kalishman S. Collaborative research in medical education: a discussion of theory and practice. *Med Educ* 2010; 44:1175-1184.

Orchard CA, Curran V, Kabene S. Creating a culture of interdisciplinary collaborative professional practice. *Med Ed Online* 2005, 10:11. Available from http://www.med-ed-online.org.

Olson JS, Cooney D, Olson GM, Hofer E, Bos N, Yew J, Potter A, Zimmerman A, and the SOC data group. *The Collaboration Wizard: A set of factors that lead to success with suggested remedies for deficiencies*.

Ritchie SM Rigano DL. Solidarity through collaborative research. Int J Qual Stud Educ 2007;20(2):129-50.

Schwartz A, Young R, Hicks PJ, for APPD LEARN. Medical education practice-based research networks: Facilitating collaborative research. *Medical Teacher* 2016; 38:1:64-74.

Stadler DJ, Archuleta S, Cofrancesco J, Ibrahim H. Successful International Medical Education Research Collaboration. *JGME* Supplement, August 2019, p. 187-189.

Whicker SA, Engle DL, Chudgar S, DeMeo, Bean SM, Narayan AP, Grochowski C), Nagler Alisa. A meaningful MESS (Medical Education Scholarship Support). *Med Educ Online* 2016;21:1, 32458, DOI:10.3402/meo.v21.32458.