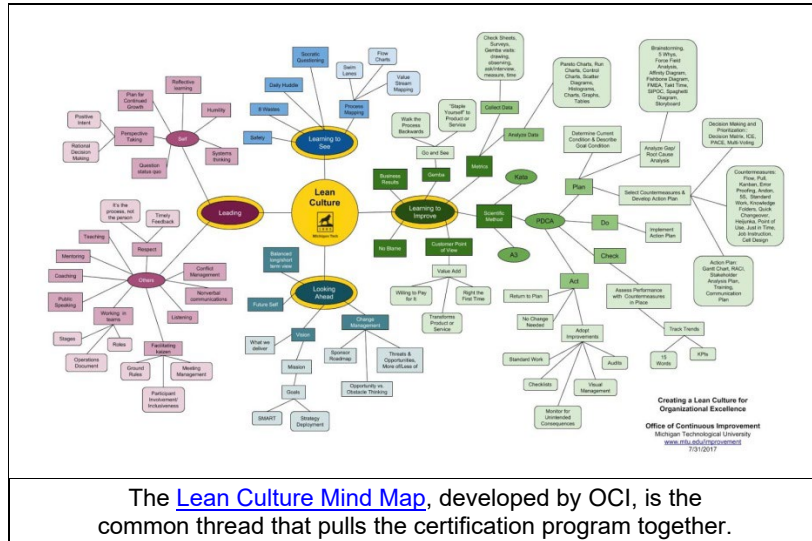


Continuous Improvement Using Lean Principles

February 2019 Update

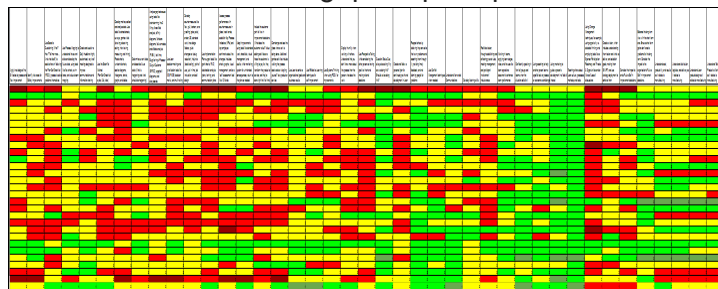
Making Lean Learning Flow

As a group, our Lean facilitators are a valuable resource that needs to be actively managed. Too often, our newly trained Lean facilitators were not continuing their engagement with the Lean community, and the facilitators that stayed involved were not mindfully growing their Lean thinking and practice. As we worked to solve these problems, we realized that we were expecting our Lean facilitators to become



independent and continue learning with very little support. While this worked for a few of our people, most were not equipped for success with this model. Our facilitators needed systematic coaching, mentoring, and training. We developed a Lean certification framework that clearly defines Lean facilitator expectations, gets supervisor buy in, builds our Lean community of practice, and provides a structured way for our facilitators to grow in Lean knowledge, skills, and abilities (KSAs). The certification program also enables us to better define, measure, and report our facilitator activities.

The comprehensive program includes facilitator certification levels, supervisor approval and involvement, reporting requirements, Lean office commitments, and an internal board of facilitators nominated by their peers who create, maintain, and assess policies and procedures. A Lean mind map shows how Lean thinking, principles, processes, methods, and tools are interconnected. The mind map

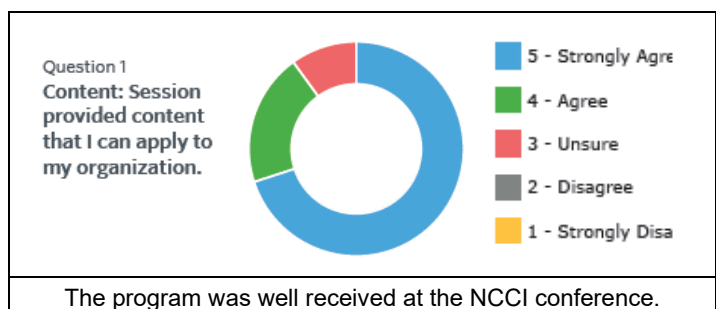


Color-coding the Level Of Learning Self-Assessment creates a heat map, clearly indicating where more Lean training is needed.

delineates the desired facilitator KSAs, and every item on the mind map has been assigned a desired level of learning for each certification level. Using clear and well defined levels of learning guides training, personal growth, and program development. Facilitators use a self-assessment based on the mind map and levels of learning to establish their learning goals, and a coach is assigned for support and advice. Standard work for facilitators and coaches sustains the program.

Our training and development program was selected for presentation at the Network for Change and Continuous Innovation (NCCI) Conference. [NCCI](#) is a non-profit organization that seeks to position higher education institutions to be agile, lifelong learning models to transform lives and communities. Attendee feedback was positive: "Very helpful."

"A great example of an existing program for us to model after." "These tools and methodology can be used in so many areas... new employees, current employees, etc. Great job!! Thank you for sharing!!" Based on the excellent reviews, we have been invited to be a presenter for [NCCI's Power60](#) professional development series on April 18, 2019, at 1 p.m. EST. Power60s are one-hour webinars led by higher education thought leaders.



Lean Outreach and Connections

- **Archer Selected for Michigan Lean Consortium (MLC) Board.** Office of Continuous Improvement (OCI) director Ruth Archer, PhD, was selected to serve on the board of directors for the MLC, a [statewide Lean organization](#). The MLC's mission is to transform Michigan's organizations and economy by developing and supporting lean systems thinkers. Archer is also the board liaison for technology and social media. She will serve a three-year term on the nine-member board.
- **Dickinson County Lean Group Invites OCI Participation.** The Continuous Improvement Solutions Group in Dickinson County, Michigan, invited OCI director Ruth Archer to participate in a panel discussion and deliver a workshop on eliminating waste and improving flow in processes. The panel members were invited as distinguished experts in Lean office, service, and manufacturing.
- **Student Organization Chooses New Advisor.** The [American Society for Quality \(ASQ\) student organization](#) selected OCI director Ruth Archer to replace a departing advisor. ASQ is a global leader in quality and consists of a community of passionate people who use their tools, ideas, and expertise to make our world better.
- **Eagle Mine Continuous Improvement Lead Visits OCI.** Cynthia Ketzenberger, '93, the lead for continuous improvement at Eagle Mine in Champion, Michigan, visited Michigan Tech to learn more about Lean in office and service. She has also attended Copper Country Lean Group meetings and participated in a gemba walk at the Muffler Shop, a showcase Lean service organization. The "gemba" is the place where work is being done. At the gemba, you can see the actual processes, understand the work, ask questions, and learn. Gemba walks are an important part of effective Lean leadership.
- **New Student Process Improvement Coordinators Join OCI.** The OCI welcomes Sophie Pawloski, a mechanical engineering major, and Mitchell Carpenter, a Materials Science and Engineering major, as [student process improvement coordinators](#).



The participants formed teams and learned to improve flow and eliminate waste in their widget production processes.



Members of the Copper Country Lean Group visit The Muffler Shop in Houghton.

Continuous Improvement Events as of January 25, 2019

Managed through OCI				
President's Council Area	Active as of 25 Jan 19	Completed since last report 7 Nov – 25 Jan 19	Completed FY19 YTD 1 Jul – 25 Jan 19	Completed FY18 Full Year
Academic Affairs	3	0	2	5
Finance & Administration	3	1	1	13
Research	0	0	0	3
Advancement	0	1	1	2
University Relations & Enrollment	1	0	0	0
Total	7	2	4	23