

# High Quality Resident Run Didactic Lectures

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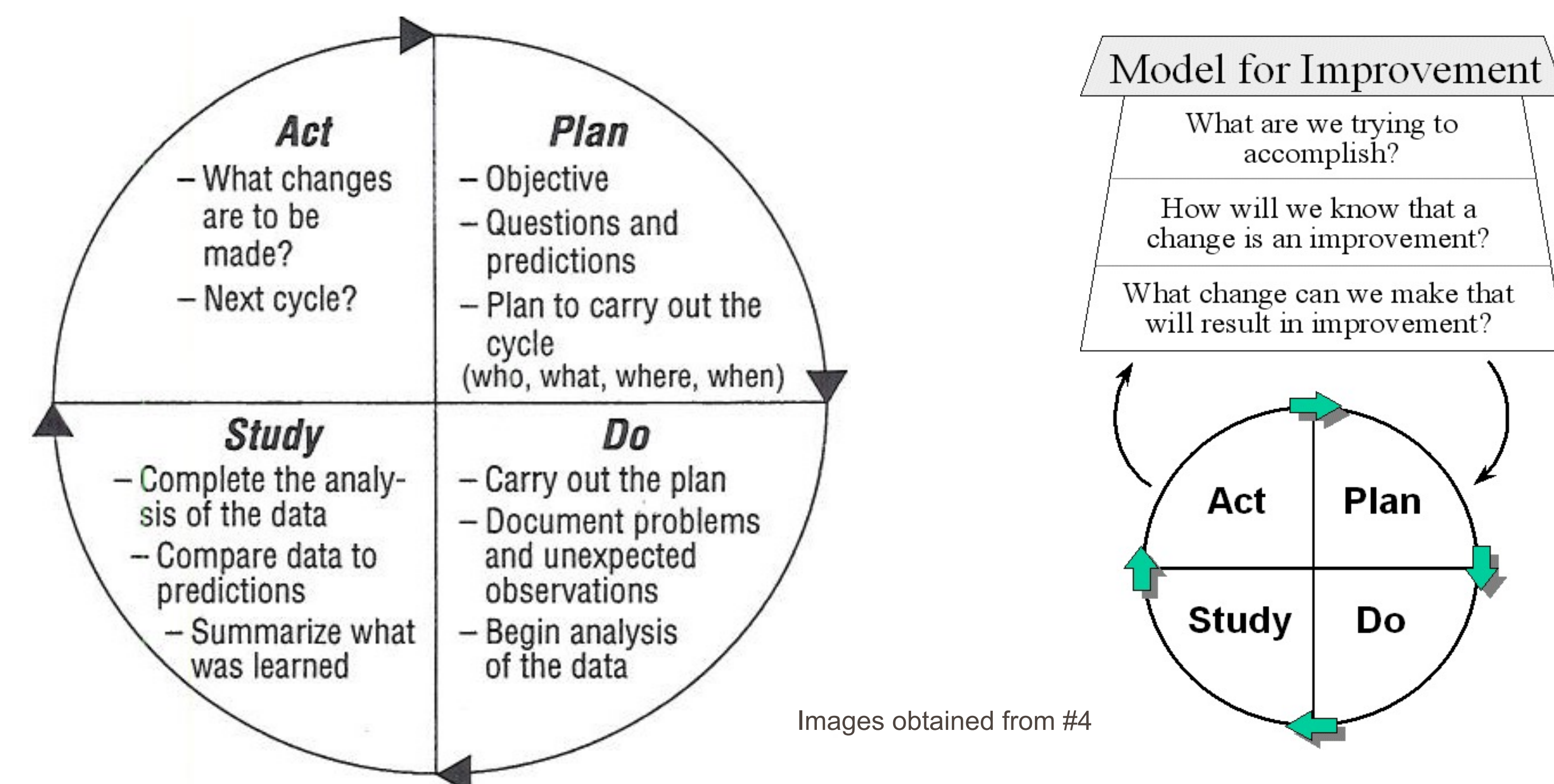
## Introduction

The ACGME requires regularly scheduled didactic sessions but leaves the content and presentation format at the discretion of the program<sup>1</sup>. Typically, presentations organized and given by residents are limited to journal club, case of the day and morbidity and mortality conference. Recently, various specialties have experimented with a more resident-driven approach, showing favorable results<sup>2</sup>. Requiring residents to deliver lectures on a topic of their choosing allows them to fill gaps in their knowledge while strengthening their presentation skills. We incorporated successive PDSA cycles to improve the effectiveness of those lectures with the aim of creating an optimal learning environment.

We will compare and contrast the original program to its current state and offer lessons learned on how to promote a similar experience at other institutions. It is our belief that consistent high-quality resident-run lectures can improve the residency experience and long-term retention<sup>3</sup>.

## Small Tests of Change

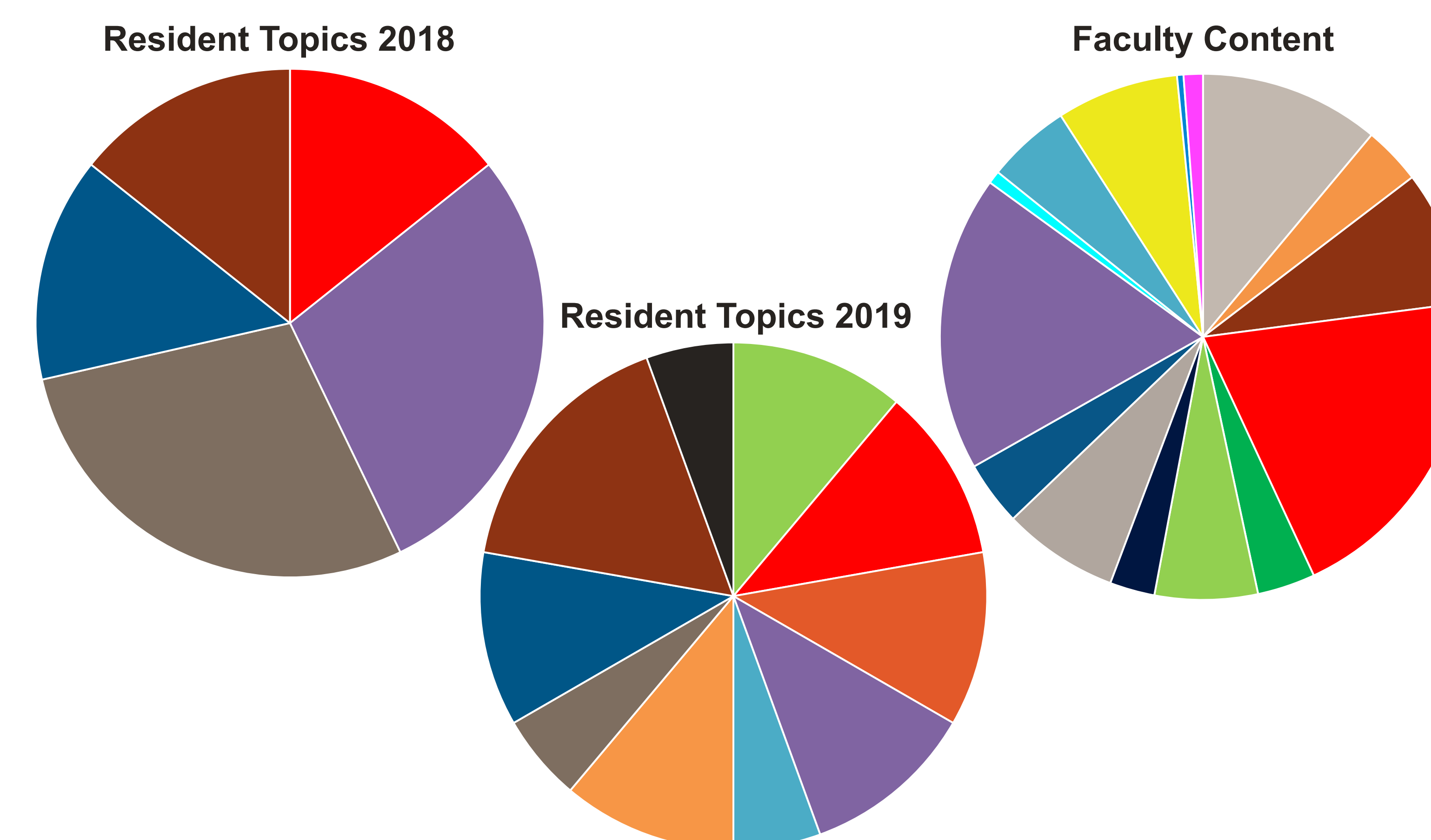
The Plan-Do-Study-Act (PDSA) cycle, developed by W. Edwards Deming, is an iterative method of process improvement. It follows the scientific method in that the situation is approached first with a theory, which is then tested and the results analyzed. A conclusion is then reached on if the theory is correct, incorrect or additional tests need to be performed. Our global aim was to give high quality resident run didactics once a week that was self-driven by the residents. We implemented successive PDSA cycles through the weekly resident-run conferences to test small changes over time, and elicit feedback from the residents to determine if the effect was positive, negative or neutral.



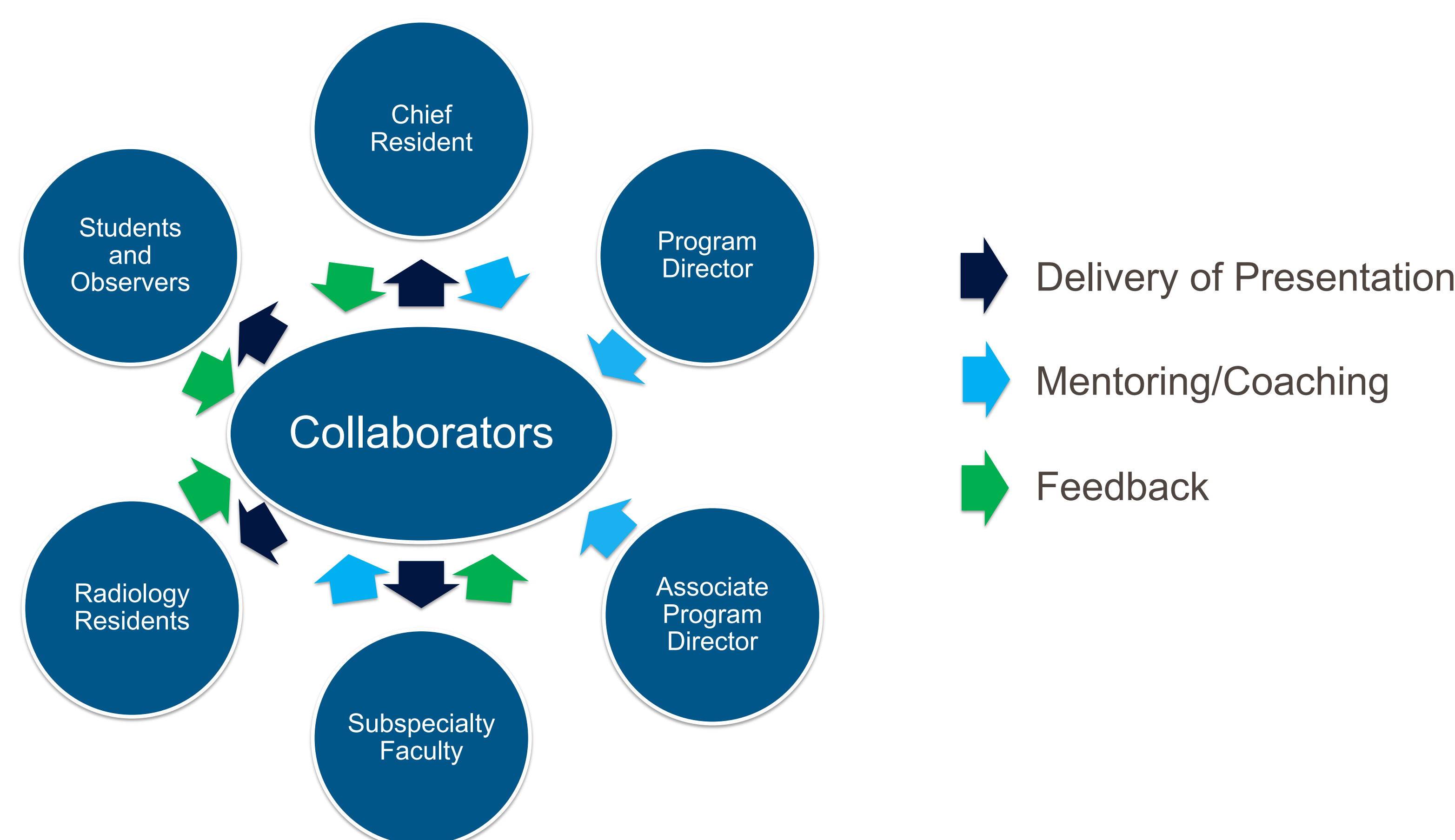
Images obtained from #4

## Curriculum

Radiology residents are expected to master a diverse array of topics in a relatively short period of time. Topics that appear on the ABR Core exam include **breast imaging, cardiac, gastrointestinal, musculoskeletal, neuroradiology, pediatric, thoracic, reproductive/endocrinology, genitourinary**, vascular, **interventional, nuclear medicine, quality & safety, physics, economics**, and **professionalism**. Sources of knowledge include books, journals, online resources, lectures, and reviewing cases; however there is no substitute for experiential learning at a workstation, in an interventional suite or behind a podium. To provide a well rounded education for radiologists of the future, training must be multi-faceted, incorporating traditional methods of instruction in addition to encouraging residents to become teachers in both formal and informal settings.



## Improvement Committee



## Improvements

	Original	Challenge	Current State
<b>Meeting Time</b>	Wednesdays at 4 pm	Rush hour traffic after the meeting was a detriment to wellness	Mondays at 7 am
<b>Topic</b>	Selection by resident: any topic of personal interest	Repetition of some subspecialties, under-representation of others	Subspecialty assignment with choice of a topic within; i.e. Neurology – “Must know facial bone fractures”
<b>Attendance</b>	R1 Residents only	Lack of experience and perspective for what is high yield and clinically relevant	All residents + a faculty member
<b>Attendance</b>	Residents at the main site only (Aventura Hospital)	Offsite residents missed valuable education opportunity	All residents attend in person or by Webex

## Challenges and Future Plans

A continued challenge will be to ensure that content is basic enough for R1s to be interested, but sophisticated enough that the upper level residents benefit. This will require quarterly PDSA evaluations of the resident run conference content for what worked and what didn't, with attention to relevance of topic, digestibility of source material, and evaluation of presentation styles. We plan to implement formal presentation skills and slideshow design training to enhance the effectiveness of the resident led lectures. Utilizing successive PDSA cycles, we have strengthened the quality of our resident provided lectures., we created a lecture series with content that is engaging, up to date and board relevant.

## References

1. Accreditation Council for Graduate Medical Education: Common Program Requirements. <http://www.acgme.org/acgmeweb/Portals/0/PFAssets/ProgramRequirements/CPRs2013.pdf>
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3. Pamarthi V, Grimm L, Johnson K, Maxfield C. Hybrid Interactive and Didactic Teaching Format Improves Resident Retention and Attention Compared to Traditional Lectures. Acad Radiol. 2019 May 10. pii: S1076-6332(19)30089-3. doi: 10.1016/j.acra.2019.02.018. [Epub ahead of print] PubMed PMID: 31085099.
4. R Moen. Foundation and History of the PDSA Cycle. Accessed from [https://deming.org/uploads/paper/PDSA\\_History\\_Ron\\_Moen.pdf](https://deming.org/uploads/paper/PDSA_History_Ron_Moen.pdf) on 07/10/19.