



# Using Lean Methodology to Improve Lifelong Learning and Self-assessment Credit for Pediatricians

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## Introduction & Background

Prior to the American Board of Pediatrics' (ABP) collaboration with the Accreditation Council for Continuing Medical Education (ACCME), the ABP only accepted Part 2 MOC credit for prospectively approved activities developed internally, and activities developed by a select few external organizations. These external organizations would then transmit MOC credit to the ABP either through a webservice or the ABP's Completion Data Portal. All MOC activities had an associated fixed point value, based on the number of questions within the assessment module of the activity. Notably, at the beginning of our partnership with ACCME, the ABP did not have the capability to accept variable or incremental credit, which differed from how CME operates and how the other boards collaborating with ACCME accepted credit.

The ABP was charged with updating the ABP system to allow for the acceptance variable credit. Prior to the start of the event, it was necessary for business to define variable credit acceptance in order to set parameters for the project.

### Definition

- ✓ Variable credit is any amount of credit up to the identified maximum amount of CME credit set in ACCME's system
- ✓ Credit may be submitted a single time or through multiple entries until the designated maximum is reached
- ✓ Incremental (.25) quarter hour points will be accepted.

## Project Aims

- ✓ Decrease lead time for activity set-up and processing.
- ✓ Decrease lead time for credit completion processing.
- ✓ Increase quality of activity list synchronization between ABP and ACCME systems.
- ✓ Allow for partial, variable and repeatable credit for activities registered through ACCME PARS for MOC 2 credit.

## Value Stream Mapping

### Document Activity and Completion Credit Processing for Current State Value Stream Map

- High-level process steps were identified by CME activity providers, ACCME and ABP IT and MOC staff



A Value Stream Map (VSM) shows the sequence of activities describing a process including wait time in between process steps. Lead time (LT) is comprised of the total process time, including all cycle times and wait times.

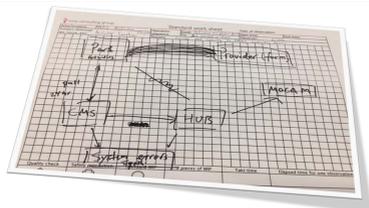
Over the course of the four day Lean event, staff from ACCME, AAP, ABP, ABIM and various activity providers provided input on the processes and procedures involved in activity entry, set-up, processing, validation and reconciliation.

Current state VSM revealed a LT of 2430 minutes (40 hours) with only 9 minutes (0.37%) being value added due to extensive and unnecessary wait periods in processing. Of the 2430 minutes of LT approximately 2420 minutes were identified as Wait Time (WT).

## Gemba

Through Gemba, participants identified high level process steps, and engaged in motion and time observation exercises to fully and accurately gauge actual processing of activity set-up and completion credit processing.

Motion and time observation exercises were completed both in a test environment and in production, ensuring that processing, data cycling and response times were accurate and valid.



The ABP interviewed external partners on their experience, as well as lessons learned from other boards participating in the ACCME collaboration.

### Takeaways

- "By not accepting variable credit, you punish all of our overachievers so the late adopters can receive credit."
- "Validation occurs at Board level, PARS cannot validate that the provider is sending more than maximum."
- "Number of people requesting MOC credit has gone down-too many activities."

Through Gemba, it became evident the current state required extensive manual interventions, was error prone and lacked a singular authority for data, requiring time-consuming manual reconciliation.

## Identifying Opportunities

Multiple themes were identified over the course of the Lean Event as opportunities to eliminate waste and add value to stakeholders.

### Data Reconciliation

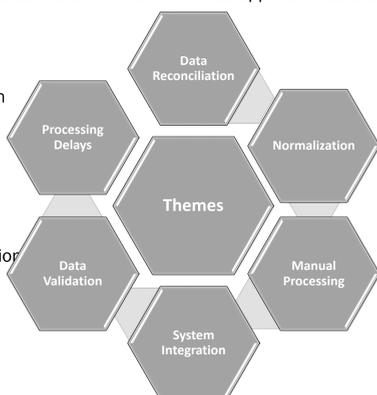
Requires ABP Staff Manual Intervention

### Processing Delays

24-hour pull from ACCME Systems  
Delays affect validation and reconciliation

### Data Validation

ACCME systems do not validate data, for all validation done through ABP.



### Normalization

Creation of Part 2 activities and acceptance varies by source

### Manual Processes

Leads to errors  
Unnecessary work/handoffs

### System Integration

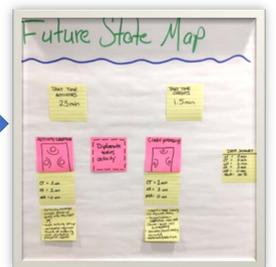
Lack of system integration activity set-up.

## Future State Mapping

A future state VSM showed a process that significantly reduced wait time and provided significant added value for stakeholders.



LT= 2430 min  
CT = 10 min  
WT = 2420 min  
VA = 9 min  
NVA = 2421  
% VA = .37037%



LT = 2 mins  
CT = 2 mins  
WT = 0 mins  
VA = 2 mins  
NVA = 0 mins  
% VA = 100%

### Key Features of the Future State

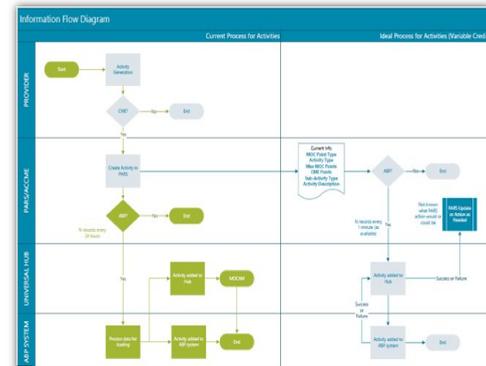
- ✓ Increase pull rate (Current state 1x per 24 hours)
- ✓ Automated steps, reducing possible manual errors
- ✓ A single defined work flow, allowing for systems normalization
- ✓ Minimum data requirements defined and enforced through data contracts
- ✓ Context sensitive validation

## Data Flow Mapping

Normalization in data processing.

Improved synchronization of ABP and ACCME databases.

Single authority for data



Automated reconciliation after every data pull.

Reduced feedback data validation to the activity provider.

## Implementation

- ✓ Proposed actions were identified and an implementation plan was developed by all stakeholders involved in the process.
- ✓ Improvements were monitored through meeting the milestones.
- ✓ A team was formed to meet throughout the course of the implementation process.



## Unintended Benefits

While the direct benefit cited in conducting the VSM was to avoid potential problems in implementing features within the ABP system which would allow for the acceptance of variable credit - a host of unintended benefits allowing for significant savings were also identified.

- ✓ Identified possible opportunities to close out an existing feature, which would result in significant IT savings of architectural rewrites.
- ✓ Connection with the Hub instead of building another service created normalized processes
- ✓ Automation of activity setup for Internal ABP Part 2 and ABP Part 4 activities
  - Old Process = 875 minutes of staff time (35 minutes @ 25 activities)
  - New Process = 150 minutes of staff time (6 minutes @ 25 activities)
- Eliminated wait time of 7,235 minutes
- Eliminated defect opportunities due to manual entry
- ✓ Charter Requirements were better defined and greater level of detail gleaned
- ✓ Two (2) week savings of IT staff personnel time that would have been required for Requirements Gathering Design Phase.

## Lessons Learned

- ✓ It is possible to simplify without compromising standards.
- ✓ Take time to understand the process rather than jumping to a solution.
- ✓ Identify not just the problem, identify and develop a plan.
- ✓ Four days with the right people in the room is equivalent to many months of meetings.
- ✓ Interprofessional collaboration is essential in understanding the whys and hows of departmental processes.