

Lean Training at Parris Island

1. **We can train 20% more recruits on 20% more tasks with 20% less people in 20% less time.** The potential to streamline training and save people and hours at PISC is significant. Lean training is efficient training.
2. **There are (7) types of waste.** Waste is needless action that costs time and energy without adding value for the FMF. **Learn to recognize waste:**
 - **Overtraining.** More training than needed. What does the FMF need?
 - **Transportation.** Moving recruits.
 - **Instructor motion.** Excess instructor actions: movement, tasks, forms, and keystrokes. Non-training activities.
 - **Queue time.** All waiting between and during events.
 - **Inventory.** Excess recruits: on-events, on-island.
 - **Recycles.** Retraining time. Processing efforts. Drops.
 - **Overproduction.** Graduating Marines before SOI and FMF need them.

Some analysts add three more type of waste: human underutilization, computer underutilization, and improper metrics. [1][2][3]

3. **Examine the training schedule.** All events fall into three categories:
 - **Prime Training.** Actual training where recruits learn to be Marines.
 - **Necessary,** but non-value-added activities: laundry, testing, chow.
 - **Waste.** (7) types. Queue time and transportation are our key wastes.

$$\text{Process Efficiency} = \text{Prime Training Time} / \text{Total Time}$$

We need to focus critically on our non-value-added activities. If 25% of our time transforms recruits, where is the rest of our time? [2]

4. Little's Law:

$$\text{Cycle time} = \text{Recruit population} / \text{Average Graduation Rate} [2]$$

Cycle time = 6040 recruits / 400 graduates per week = 15.1 weeks
 Due to inefficiencies, our depot cycle time stretches beyond 12 weeks.

5. **Recommendations.** PISC should strive to train 20% more recruits on 20% more tasks with 20% less people in 20% less time. CO RTR should:
 - a. **Optimize the recruit training schedule to minimize waste.** Find waste *inside* events. Combine events. Broaden instructor duties. Reduce handoffs. Standardize series size and optimize events to cut queue time. Find training constraints. Saved training hours reduce instructor needs and permit new training. See [4].
 - b. **Track depot-wide cycle time as a measure of training efficiency.** Shorten recycle times to reduce Support Battalion population and increase graduation rates.

- c. **Ruthlessly screen all non-recruit-training activities.** 1st RTBn supported over 240 visits in 2005 and 2006. None of these multi-day, multi-man requirements helped train a single recruit. [5]
- d. **Train company-grade leaders to recognize waste and implement efficient solutions.** The trainers know best how to save time.

Training time and instructor time is precious. Lean training practices reduce instructor requirements and permit additional training even for an increased recruit population.

Some recruits selected as honor men complain of wasted time in the schedule. EDS analysts found 44 man-years, 22 man-days per cycle, of non-productive instructor time in our schedule. [6] We owe our instructors better use of their time.

We need to find and return excess instructor capacity to training, to recruiting, or to the operating forces.

Prepared by: LtCol B.B. McBreen, 1st RTBn, MCRD PISC
brendan.mcbreen@usmc.mil, 843-228-2467

- [1] Emiliani, M.L., "Origins of Lean Management in America," *Journal of Management History*, Vol. 12, No. 2, 2006, p. 167. Lean practices were pioneered by engineers Ohno and Shingo, named "Lean" by Womack in 1990.
- [2] George, Michael, *Lean Six Sigma for Service*, New York: McGraw-Hill, 2003.
- [3] Wood, Nigel, "Lean Thinking: What it is and what it isn't," *Management Services*, Vol. 48, Iss. 2, February 2004, p. 8.
- [4] 1st RTBn, MCRD PISC, "Lean Recruit Training Ideas," 2007.
- [5] 1st RTBn, MCRD PISC, "Visit Support Log," updated 4/9/2007.
- [6] EDS, "MCRD-PI/ERR IT Strategy," 23 February 2007, pp. 41 and 43.