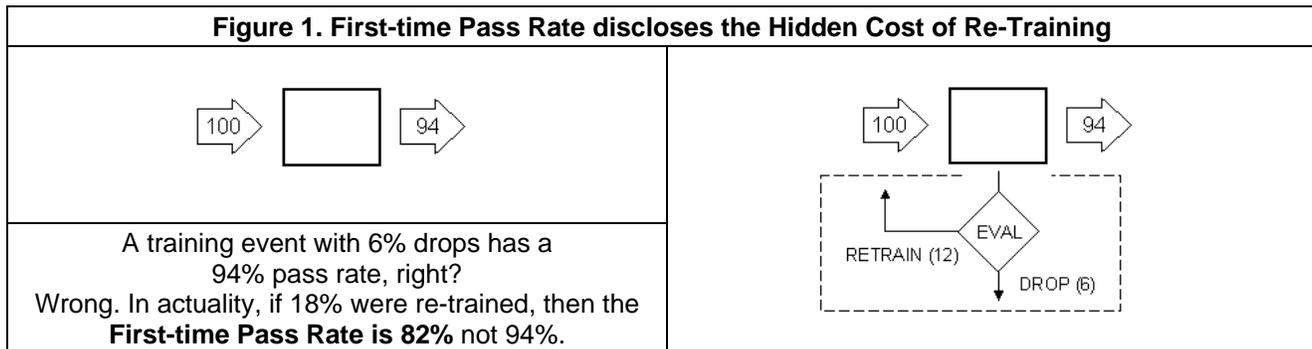
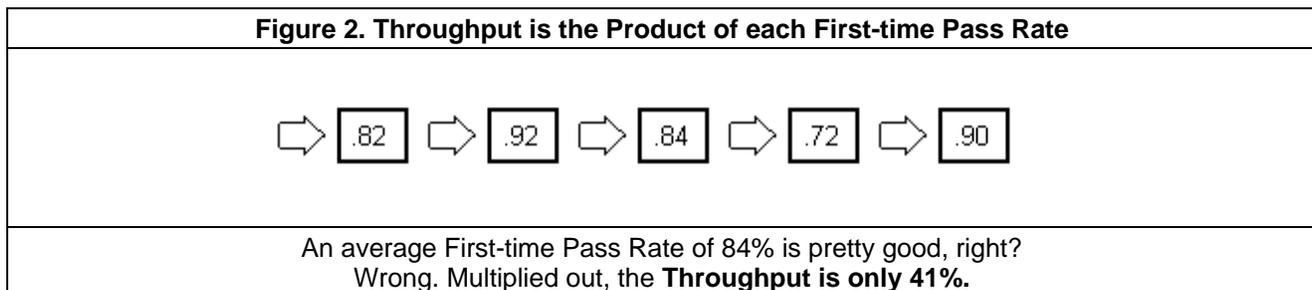


The Hidden Costs of Re-Training Need to be Captured

1. **Too much of our Instructors' time is spent on re-training.** The cost is not money, but **Instructor-Days**. The recruit training schedule represents only a fraction of the Instructor-Days we spend on training.
2. The pass rate for each training event does not capture the cost of re-training. The **First-time Pass Rate** does. See **Figure 1**.



3. An 18% re-training effort requires 18% more Instructor-Days, and takes 118% of the time it should. Swim Qual has a pass rate near 100%. The **First-time Pass Rate**, however, is about 85% on Day 1. To achieve 100%, we spend 4 more days re-training. Why are entire companies held up for days just so the last 15% of failures can re-train? What is the opportunity cost of this? How many Instructor-Days are lost?
4. The entire recruit training process is a sequence of training events. The product of each **First-time Pass Rate** is the overall **Throughput**.



5. In **Figure 2**, the odds that a recruit will pass all events without re-training are 41%. Almost 60% require re-training. That is 60% of recruits training outside the schedule, consuming time, facilities, materials, and Instructor-Days. This is the hidden cost of re-training. To maintain good Throughput, each event needs a First-time Pass Rate near 90%. Even only 6 events at 90% generate a low 53% Throughput. Our recruit training Throughput at PISC is likely far less than 41%.
6. **We will train every recruit to the best of our ability.** But our "never-leave-a-man-behind" philosophy cannot let us become complacent or wasteful. The first training opportunity ought to be the best and most effective training. Re-training is an expensive fall-back.

7. The events that should be analyzed and re-designed are not those with the lowest First-time Pass Rate, but those with the greatest potential to save Instructor-Days. See **Figure 3**. As more recruits are trained and a shorter schedule is implemented, we need to find efficiencies in our practices. Saved Instructor-Days can be better allocated elsewhere. Saved Instructor-Days are a quality-of-life issue for our Marines.

| Figure 3. Which Events Should be Targeted? | | | | |
|---|-----------------------------|--|---------------------------|---|
| Event | First time Pass-Rate | Instructor Days to complete event | | Instructor Days Possible to Save |
| 1 | .82 | 9 | $(1 - 0.82) \times 9 =$ | 1.6 |
| 2 | .92 | 105 | $(1 - 0.92) \times 105 =$ | 8.4 |
| 3 | .84 | 396 | $(1 - 0.84) \times 396 =$ | 63.4 |
| 4 | .72 | 25 | $(1 - 0.72) \times 25 =$ | 7.0 |
| 5 | .90 | 12 | $(1 - 0.90) \times 12 =$ | 1.2 |

8. **Recommendations.** RTR should track the **First-time Pass Rate** for all events. Events that waste the most Instructor-Days should be analyzed and re-designed to minimize lost Instructor-Days. Analysis of each event should generate a separate "How long do we re-train before we drop?" guideline. The hidden costs of re-training need to be captured.

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