

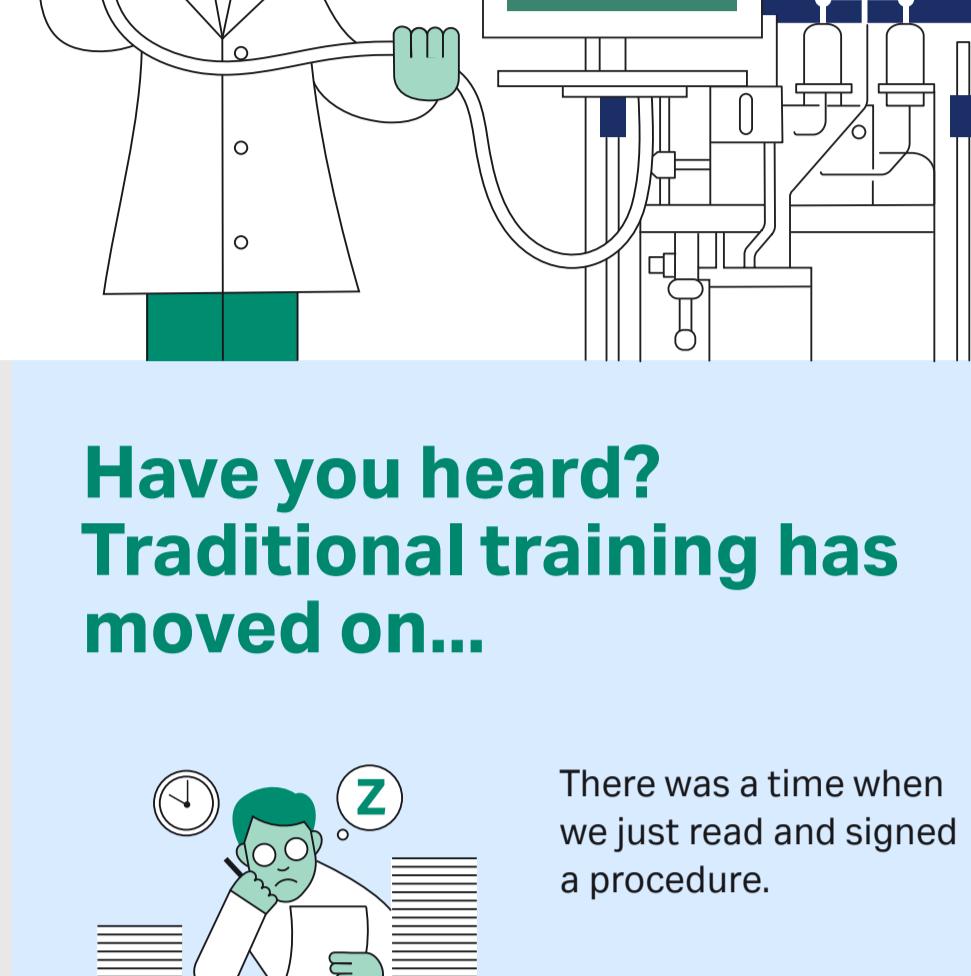
# Blended learning

## An approach to operator training

### Let's talk about operator training

Installation errors and inexperienced operators are a common cause for lost, delayed, low-yield or rescheduled batches.

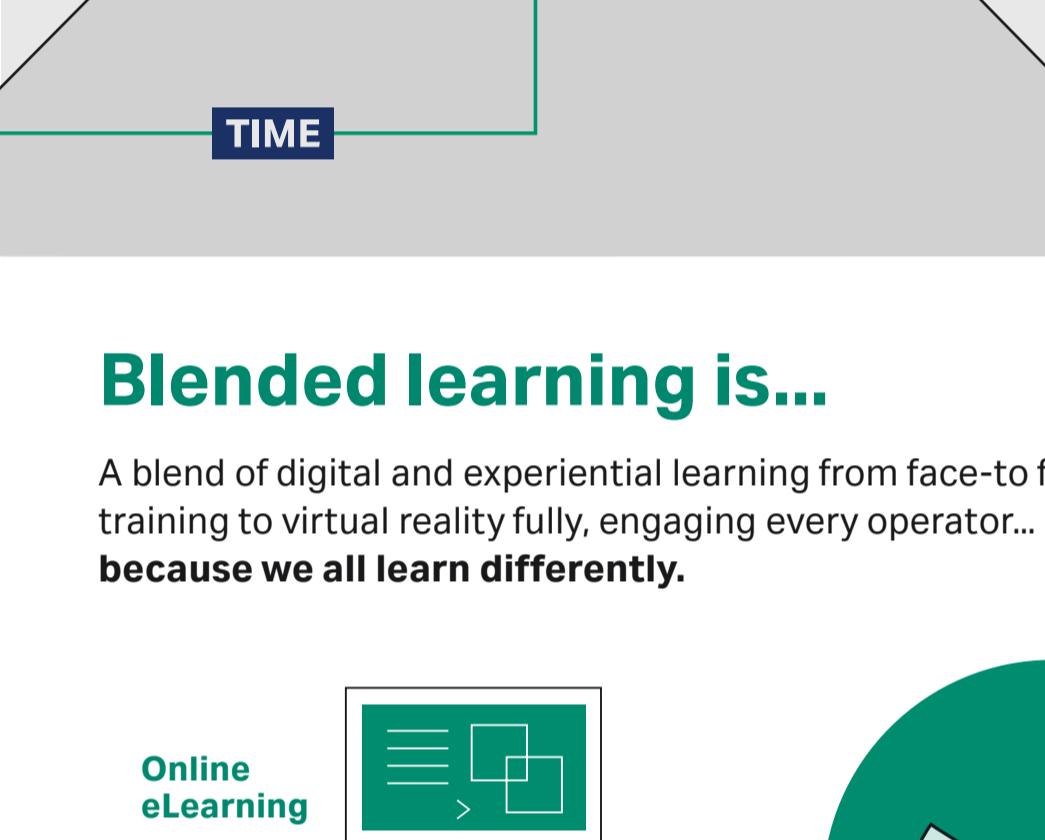
Approximately 3% of GMP batch failures are due to operator error.<sup>1</sup>



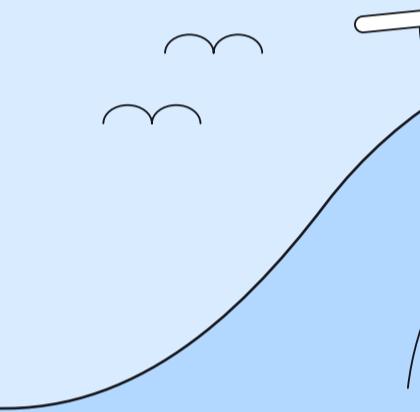
### It's a wise investment in people and process

But are your current training methods costly in both time and money?

Our research shows training biomanufacturing operators is both time consuming and costly.



### Have you heard? Traditional training has moved on...



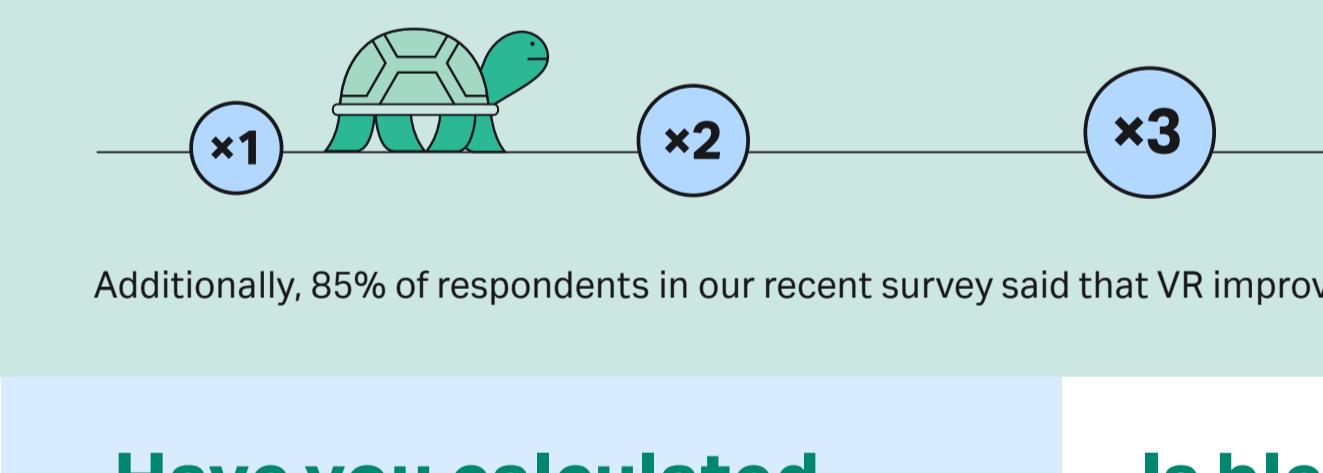
There was a time when we just read and signed a procedure.

### Now we have blended learning!



### Blended learning is...

A blend of digital and experiential learning from face-to face training to virtual reality fully, engaging every operator... because we all learn differently.



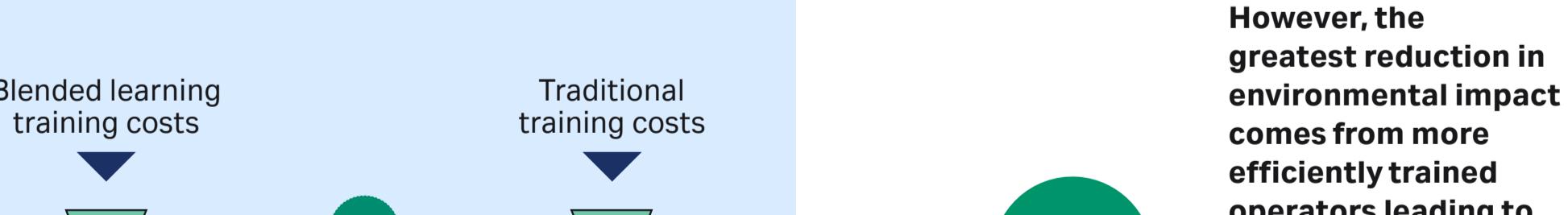
#### Hands-on training

Virtual classroom training

Virtual reality training

### ...and it's up to 4x faster than traditional methods...

Such as classroom only learning. A study by PwC highlighted that a 2 hour training session in a classroom, was completed in 45 minutes through eLearning and just 29 minutes using virtual reality.<sup>2</sup>



Additionally, 85% of respondents in our recent survey said that VR improved learning.<sup>2</sup>

### Have you calculated the cost savings?

Implementing VR training can pay for itself in a few months and reduce risk of operator error for years to come.

Reap the rewards of a good investment!



### Is blended learning sustainable?

The digital and virtual aspect of blended learning improves sustainability by:

- Reducing the amount of consumables used
- Reducing travel need

However, the greatest reduction in environmental impact comes from more efficiently trained operators leading to minimized batch loss.