

Drip-Feed Learning: Spaced MicroTraining in Clinical Research Professional Development

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1. Background

Clinical research professionals have demanding schedules, with limited time available to dedicate to training. Microlearning is an approach that delivers training in short, targeted activities that focus on one skill and are designed to take less than ten minutes to complete. Microlearning can be further enhanced by utilizing a strategy known as distributed practice, also known as “drip-feed learning,” which improves long-term retention of material.

University of Florida Health Cancer Center (UFHCC) developed a drip-feed learning program to teach clinical topics by breaking down complex training modules into a series of short, focused learning activities which are strategically scheduled over a longer period. Prioritizing specific topics and providing learners with a steady stream of micro-learning experiences allow for gradual absorption and improved retention. Benefits of spacing out these learning sessions include reducing cognitive overload, maintaining learner engagement, and reinforcing key concepts through repetition and extended practice, ultimately leading to more effective retention and application of the material.

The “drip-feed” method works particularly well for skills needed by clinical research professionals. The initial topic chosen for development in this drip-feed training program was ALCOA+, which is fundamental to clinical trial coordination.

2. Goals

By reinforcing these principles through drip-feed learning, clinical teams can ensure the data collected is reliable and credible, while reducing time spent on training and away from clinical study tasks and patients, which is essential for regulatory compliance and the validity of research outcomes.

- Provide essential training on the ALCOA+ principles to clinical research teams
- Improve the accuracy, reliability, and consistency of clinical research data as recorded and managed by clinical research teams
- Train research coordinators to apply best practices in data management

3. Solutions and Methods

Microlearning sessions will be delivered electronically, using Articulate Storyline and annotated videos, over the course of approximately three months. Each week, a new session providing focused instruction on a single ALCOA+ principle will be released, providing participants with an opportunity to absorb and apply the information through follow-up assessments and review. To further reinforce learning, reference guides and discussion questions/scenarios will be provided for participants to engage with key concepts and real-world applications. This modular and incremental approach will enable participants to build their knowledge and confidence in applying best practices in data collection, ultimately leading to improved accuracy, reliability, and consistency in clinical research data. By the end of the program, participants will be well-versed in the ALCOA+ principles and equipped to ensure compliance and promote high-quality research outcomes.

4. Outcomes

The most important outcome will be that data entry errors will decrease, as measured by internal audit data and findings. Other potential metrics to collect will include engagement metrics (time spent, drop-off), learning metrics (quizzes), behavior metrics (manager observation), and learner satisfaction.

5. Learned and Future Directions

If the drip-feed ALCOA+ learning program achieves the stated outcomes, additional microlearning assets based on relevant clinical research skills will be developed. The drip-feed assets will be curated as self-directed learning modules after the program's completion.