



# DISCUSSION GUIDE

## 465 FROM CLASSROOM TO COOLING TOWERS: TEACHING WATER TREATMENT WITH DAN MERRITT (PART 1)

### EPISODE SUMMARY

**Trace Blackmore, CWT** interviews **Dan Merritt, CWT** national sales manager at **CH2O**, and maps his unexpected journey from physics and high-school teaching into the industrial water-treatment world. Dan shares how a chance invitation to ride along with a service tech turned into a 24-year career and how his teaching background shaped his ability to simplify complex chemistries and math for field technicians. The conversation highlights the evolution of the **Association of Water Technologies (AWT)** technical training program, showing how trainers like Dan continually refine course content, add hands-on demonstrations and leverage storytelling to make abstract concepts stick. Along the way, Dan recounts early missteps (like a failed static-electricity demo and a foaming softener cleaning) and celebrates the role of mentorship, continuous learning and humility in developing water-treating expertise.

### DISCUSSION QUESTIONS

1. Dan never planned a career in water treatment; he left graduate school, tried teaching high school and college, and only later discovered the field through a ride-along. Share how you or someone on your team entered the industry by accident. What lessons from early non-water roles still influence your approach today?
2. Dan credits his classroom experience for his ability to simplify chemistry and math for plant operators. How does your team convert complex technical concepts into accessible language for customers? What training techniques or analogies have worked best?
3. Dan and Trace recall Bruce Ketrick's foam-overflow story and how it helps people remember why slow chemical additions matter. Discuss memorable stories you've heard (or told) in training or sales. How do you ensure those narratives drive home the right lessons without undermining professionalism?



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4. Dan and Trace emphasize that basic equations are less important than understanding why the math works. Reflect on a time when knowing the reasoning behind a formula (cycles, dosages, blowdown, etc.) helped you troubleshoot or optimize a system. How can you encourage more mathematical literacy on your team?
5. Dan notes that AWT courses help, but the Certified Water Technologist exam still requires five years of field experience and peer recommendations. How does your company balance formal training with hands-on mentoring to prepare staff for certification? Do you see the CWT as a personal goal or a company mandate?
6. Dan shares how colleagues like Mark Lewis, Bruce Ketrick and others helped him grow into an instructor. Who has mentored you in your career, and what qualities make their guidance valuable? Are you mentoring someone now, and if not, what would it take to start?

### PERSONAL REFLECTIONS

7. Early on, Dan realized it was his job to present material in a way students could understand and to adjust when they didn't get it. When was the last time you admitted you didn't understand something at work? How did asking for help (or not asking) affect the outcome?
8. Dan twice assumed water treatment would be a short-term bridge job; two decades later, it's his vocation. Think about a role or project you initially saw as temporary. What skills or relationships did you gain that became foundational later?
9. Dan revises his slides every time he teaches, adding video of demos when humidity foiled his static-electricity experiment. How often do you update your own training materials or presentations? What's one small change you could make now to enhance engagement?



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#### PERSONAL REFLECTIONS

10. Dan considered becoming a pastor and still leads music in his church while managing national sales. Reflect on how your own passions or values outside of work shape your leadership style. Do they ever create tension with business priorities?

11. Dan studied physics, taught maths and calculus, considered meteorology, and worked in manufacturing before water treatment clicked. List the diverse skills you've accumulated across different roles. How can you repurpose them to innovate or solve problems in your current job?

12. Trace's advice to Dan when taking over AWT's chemistry class was to know the audience and adjust; Dan learned to focus on the high-school level of chemistry most attendees needed. Identify a topic where you've become the "go-to" explainer. What are your key sound-bite explanations, and how could you refine them?

### TRY THIS IN YOUR ROLE

- **Design a micro-training session.** Choose a common but confusing task (e.g., calculating cycles or setting a controller). Break it into three simple steps, use an analogy (like a recipe or car maintenance), and ask a colleague to critique it. Refine the explanation until it clicks.
- **Document a "never again" story.** Think of a mistake (your own or a shared industry anecdote, such as the foaming softener cleaning) and write a brief account of what happened, why, and how to avoid it. Share it at your next team meeting or include it in your onboarding materials.
- **Pair new hires with veteran ride-along.** Create a structured ride-along program where new technicians spend a day with a senior colleague in the field—just like Dan's first introduction to water treatment. Include guided questions and a debrief to maximize learning.



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