

# A Response to David Ainsworth's Critique of Performance Technology

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A little more than 30 years ago, David Ainsworth critiqued performance technology in an article titled "Performance Technology: A View from the Fo'c'sle." It appeared in the May 1979 issue of the NSPI Journal. I was asked to respond to David's critique and my response was published in the same issue. Oddly, I was supportive of David's critique although I didn't think his critique was on as sound a footing as it could have been. So I set out to bolster his critique. Much of what I wrote back then is still sound today. I hope you enjoy reading it as much as I enjoyed re-reading and re-typing it. I have added a couple of end-notes to clarify certain matters and removed much of what I now consider excessive punctuation. Otherwise, this is the original article.

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*Elsewhere in this issue of the Journal is an article by David Ainsworth.<sup>1</sup> I have been asked to respond to it – a difficult task because I don't know David – therefore, I can respond only to his words, not to what I might otherwise sense to be his meaning. Nevertheless, I do have some thoughts that were triggered by his words and they are what I will set forth here. His article, as I view it, has two parts. The first part is about instruction and learning; the second about performance and measurement. In this response I have chosen to concentrate on the first part of his article. I think any attempt to critique the second part of his article would require an entire issue of the Journal for in it are the very heart and guts of this business: performance, measurement, and evaluation. If Harold Stolovitch and Dean Spitzer ever get around to hosting a special issue devoted to those three items then perhaps we can continue our critique of David Ainsworth's critique of performance technology. For now, however, let's confine our discussion to instruction and learning.*

David Ainsworth indicts performance technology on two counts: (1) for taking an “insular view of the process of instruction,” and (2) for “its over-reliance on performance-based measures of achievement.” I believe both his accusations are justified but unlikely to have any real effect on performance technology or its technologists. If he intends to fell the Goliath we know as performance technology, then, like the David before him, he should select his stone and place his shot with the utmost care. As it stands, I believe our modern-day David has missed the mark. As will be seen I whole-heartedly support his cause but I have serious misgivings about his case.

Ainsworth, after lamenting the foundering of the “good ship ‘Programmed Instruction,’” faults her relief vessel, the “S.S. ‘Performance Technology.’” I have a couple of problems with this viewpoint. First, I've always thought of programmed instruction and performance technology as sister ships, existing in overlapping time frames, not as one being a replacement for the other. Second, I don't think programmed instruction has foundered. As a matter of fact, I've sailed her on some very expensive, chartered cruises as late as 1975. Sure, she's not the queen of the high seas she once was, but the old gal is still seaworthy.

David continues his “view from the fo'c'sle” with the observation that the theory shared by programmed instruction and performance technology and which propels them both is likely to “waterlog” the latter if not sink it. Now sailors know that only wooden ships get waterlogged. Performance technology is much too hard, shiny and mechanical to be made of something as soft, fibrous, and alive as a tree. So my first thought about David Ainsworth's article is that the nautical metaphor he uses to launch it just doesn't hold water.

David Ainsworth's substantive criticisms of performance technology are not to be taken so lightly<sup>2</sup>. He quite accurately points out a basic flaw in its approach to instruction: “[There is]...little debate or apparent concern over the actual delivery of instruction...” I cannot help but agree with his subsequent assertion that “the process of instruction must resume its place as a primary and not secondary area of concern.”

David's emphasis on the instructional process appears rooted in a dissatisfaction with a didactic approach to instruction which he seems to equate with an authoritarian one. Ainsworth takes great pains, for example, to point out the evils of viewing the learner as “patient” instead of “agent” and of relying on one method instead of matching method with purpose. I share his concerns about these issues but I believe he is greatly mistaken when he attributes them to a legacy from programmed instruction and I believe he is greatly confused when he equates a didactic approach to learning with an authoritarian one. As a result, although I support his advocacy of an increased emphasis on the instructional process, I find his case for it a weak one. Feeling strongly about these issues myself I intend to bolster his case, here and now.

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To topple a giant one must strike him squarely between the eyes with a stone of solid logic, not pelt him with pebbles of discontent. Stones are frequently found in the vicinity of foundations (especially crumbling ones), so let's look at the foundations of performance technology: learning, behavior and behaviorism.

Learning is frequently defined (among performance technologists) as a change in behavior. The change must be relatively permanent and not attributable to simple maturation. Given this definition of learning and assuming that the intended outcome of instruction is learning, it follows that the purpose of instruction must be one of changing the behavior of the students. Moreover, if someone wishes to change student behavior without involving the students in decisions about the changes then that someone must rely on didactic methods for they are the very essence of what we know as systematic teaching.

Teaching, however, is not the same as learning and it doesn't always lead to learning. Neither learning or teaching are the same as instruction – and “didactic” doesn't equate with “authoritarian.” As a result of his lack of precision David seems to have confused the issues of (1) what is to be learned and how with (2) who is to decide what is to be learned and how.

A very simple fact of life is that students rarely have the opportunity to influence the decision to undertake instruction and even less to say about what subject matter will be presented or how. Indeed, it sometimes appears as though performance technology is structured so as to systematically dismiss whatever the target population may have to say about their needs relative to instruction. As a result students all too often are compliant instead of committed. Being the smart little devils that they are they display the behavior someone expects of them and all concerned delude themselves into thinking that learning has occurred.

Personally, I believe that learning is much more a cognitive process and much less a behavioral one than current theory and practice would indicate. Almost any instructional endeavor can be viewed as a matter of student acquisition and/or application of information (subject matter). The design of instruction, then, is really a matter of answering a few basic questions (e.g., What information do the students require? What are they to do with it? How is it best presented to them?). In other words, instruction is really an exercise in communication, and didactic instructional methods – teaching activities – involve the transmission of information. Learning, in contrast, is a process of discovering the relationships between one's behavior and its effects upon one's environment – and through that environment – upon one's self. Two of the most fundamental purposes of instruction, then, are (1) to develop the students' awareness of the relationships between their behavior and its environmental effects, and (2) to enable them to create those environmental effects. Changes in behavior are merely indicators of learning, not learning itself.

Whether students should be told of the relationships between their behavior and their environment or left to discover them (with or without assistance) is best decided by determining which environmental effects are sought and who seeks them. In the vast majority of instructional situations dealt with by performance technologists, the effects sought – the outcomes of instruction – are usually specified by someone other than the students (e.g., a staff trainer or analyst, a manager or, sometimes, a consultant). When the outcomes are known in advance, then structure in the form of “pre-organized, pre-sequences routines” can be imposed. On the other hand, if the outcomes are not known in advance (e.g., as is the case with much of what is called “experiential” or “laboratory” learning – wherein the decision as to what is to be learned is frequently left to the students), then structure, although still necessary to the achievement of outcomes and always present to some extent, cannot be imposed on a large scale in advance; instead, it must emerge as part of the learning experience. (These two very different kinds of learning experiences lead to a very meaningful and valid distinction between an “instructor” and a “facilitator.”)

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The issue of student control over the learning process – or lack thereof – brings me to a point of contention with David Ainsworth. In his article he cautions that learners are conservative forces; that they will resist efforts to stop spoon-feeding them. I totally disagree. But instead of disagreeing from the perspective of a colleague or a practitioner, let me take a different viewpoint.

In addition to my role as consultant or practitioner I frequently find myself in the role of learner, so let me as a learner tell you what I will and won't resist. I will resist manipulation in the form of "induced stress" or "submarining"<sup>3</sup>; and I will resist any instructor or facilitator who denies or ignores my basic human dignity. I won't resist being made to work, to think, to experience newness – if it has payoff for me. I presume that other human beings when in a learner-role feel much the same as I do, therefore, as a practitioner, I must extend to them the same courtesies and considerations I would demand. The rub, as I see it, is that performance technologists (and David Ainsworth in this case) make a sharp distinction between themselves and the learners. This distinction is quite arbitrary and role-based. It results in one group of human beings treating another as though they were made of clay; to be molded and shaped in the likeness of some "master performer."

I believe that David Ainsworth inadvertently perpetuates and strengthens instead of weakens an already over-inflated sense of potency on the part of performance technology and its technologists when he asserts that "We have made the learners what they are; we can unmake them and return them to their natural inquisitive mode..." To keep the real power of performance technology in perspective let me remind you that we learners have our own version of the "submarining" game – we call it "torpedoing." Sometimes we torpedo the course, sometimes the instructors and sometimes we torpedo both. Perhaps the "real" problem with performance technology is that its technologists have separated themselves from the learners for so long that they have forgotten what it's like to be a learner – and – to learn.

If performance technology is to be moved away from its reliance on didactic methods – which shouldn't be over-done because teaching is still very much a part of instruction – more must be done than criticize that reliance. The very definition of learning and the stated purpose(s) of instruction must be challenged and changed. Any such challenges will most certainly be resisted – for economic and for political reasons. First, a behavioral definition of learning allows performance technologists to claim that they can produce "measurable" results. Such claims, whether true or not, advance the cause of behaviorism and enhance the marketing efforts of behaviorists. A behavioral definition of learning (and of performance) coupled with claims that behavior can be systematically and predictably changed, make a most seductive appeal to existing power structures' requirements for control. A more cognitive view of learning not only weakens the claims of control over behavior but also brings to mind the distinct possibility of counter-control. Consequently, David's suggestion that learning might be more profitably viewed as information-processing in nature is likely to be ignored because many will see it as economically unsound or impolitic. So despite all the recent emphasis on "human rights" and the resurgence of cognitive psychology, I believe a behavioral viewpoint very much dominates and if left unchallenged will continue to dominate the thinking of most performance technologists and thereby shape the form and substance of their endeavors.

To summarize what has been discussed, I think David Ainsworth faults performance technology's reliance on didactic methods for the wrong reason; namely, because he confuses it with an authoritarian approach to instruction. This confusion weakens the strength of his criticism of performance technology. Because I too am critical of performance technology, I have chosen to support his criticism but not his case for it. From where I sit, the problem facing performance technology and its technologists looks like this: Learning is defined as a change in behavior. This leads to the purpose of instruction – indeed its only purpose – being defined as that of changing behavior. Given this purpose, those who design, develop and deliver instruction require methods which allow (or give the illusion of) control over the

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behavior of others. The requirement for control, coupled with the fact that the decision as to what is to be learned and how it is to be learned rarely involves the learners, leads to a reliance on “pre-organized, pre-sequenced routines.” Performance technology does a lot of teaching and takes an authoritarian approach to instruction more as a result of a behavioral definition of learning than as a result of its relationship to programmed instruction. To move performance technology away from where it is will require that the very definition of learning and the purpose(s) of instruction change – tasks that face severe economic and political obstacles. Nevertheless, these obstacles can and should be overcome if ever performance technology is to help people see and understand the relationships between various parts of their environment and between that environment and their behavior; that is, to learn.

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<sup>1</sup> Ainsworth's article was titled “Performance Technology: A View From the Fo'c'sle.” An alternate title proposed for my response was “The Fo'c'sle Is A Good Place To Get All Wet.”

<sup>2</sup> For the sake of this discussion, let's all assume that performance technology includes instructional technology – and its media-fixated cousin – educational technology.

<sup>3</sup> “Submarining” refers to a strategy of putting the learner off balance, of inducing stress and disequilibrium so the learner can puzzle through and integrate seemingly disjointed concepts.