

Application of the After-Action Review Paradigm to Fire Department Operations

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This is the text of a paper I wrote recently...unfortunately while I can assure you that the references are real I have lost the reference page...when I finally find...because I have to find it...I will add that to the posting.

Introduction

As the fire department moves forward into this new century it must develop more cogent methods for increasing its ability to respond to both conventional and asymmetrical demands. It seems banal now but the truth is the events of 9-11 changed the face of fire department operations at least for the foreseeable future. In order to develop the adaptability and cultural/operational flexibility demanded by today's world the fire department must learn to learn on the move; to develop a solid work based learning process. The after action review (AAR) can be an integral part of this process. The following discussion seeks to first establish the similarities between military thought and action and fire department thought and action, discuss the basic premises and history of AARs, and finally demonstrate the applicability and desirability of applying the AAR paradigms to the fire department world.

A fire department is a complex organization tasked with complex operations in situations where the incident itself generally has the upper hand at least initially. While there are standard operating procedures and general doctrinal guidance, each operation is unique and requires a unique application of a basic skill set. Given the ever changing nature of operations firefighters, in particular fire officers, are called upon to made decisions for which no fixed formulaic approach is appropriate;" what Denhardt calls, "un-programmed decisions.(Denhardt, 2002). Preparation is the key to successful decision-making. As Schultz notes, "The number one way to prepare for future tough moments is to do what the military calls an after action review." (Schultz, 2004)

Parallel Structure, Parallel Operation

The fire department's organizational structure and emergency operations closely mimic the operating paradigms of military operations. Both organizations are required to make split second decisions on which life and death hang. Both organizations face shifting amorphous threats. Marines discuss expeditionary maneuver warfare in the same general terms as the fire department discusses fire attack. General Jones, Commandant of the Marines explains, "Marines forces will rapidly transition from pre-crisis state to full operational capability in a

distant theatre.” (Jones, 2001). Each day the fire department is called upon to go from a dead sleep to full operational engagement minutes later at a house fire. The similarities continue when Jones discusses tactical flexibility saying, “marine forces will conduct multiple, concurrent, dissimilar missions, rapidly transitioning from one task to the next, providing multidimensional capabilities.” (Jones, 2001). Again, Schultz’s description parallels the average fire ground with the simultaneous needs of search, rescue, ventilation, egress, and fire attack.

The Army came to create this learning practice in aftermath of the Vietnam Conflict with civilian perception at an all time low, internal morale at an all time low and the world changing in such a way as to force a rethinking of their primary mission. Vietnam was the first conflict of asymmetrical warfare with unclear actors and murky parameters. Simply put the Army was faced with figuring out what its future role in the world was to be. They could not accomplish this goal using outmoded learning paradigms. Currently the fire department faces a similar position as budget cuts, technological improvements, increased use of fire prevention and fire protection systems, has drastically reduced the number of fires responded to. However the looming threat of terrorism, more natural disasters than ever before and the increased number of mass transit/mass casualty events has forced fire department has to rethink their operation and their learning paradigms in the same sort of ways as the Army was forced to. Our age old practice of blame assignment and scapegoating no longer works. As Darling noted of the Army, “It was clear that assigning blame was less important that setting a very specific course for the future.” (Darling, 2001). Likewise the fire department must move away from blame and into more suitable learning processes. Jones’ description of Marine philosophy approximates the philosophy of fire department leaders. It was important to draw this parallel because it is crucial to establish that the fire department can benefit from applying another military model, that of the after action AAR.

What is an AAR?

As noted earlier in the aftermath of the Vietnam Conflict the military found itself at a crossroads and after a lengthy period of introspection they developed the after action report. An after action report is regulated way of distilling vital mission specific information from participants, typically in the aftermath of the incident. It provides a consistent format and methodology ensuring that the data and information desired is the data and information that is captured. More important than data or information collection in the words of Peter Senge, the after action report is...”about the link between their learning efforts and their improvements in performance.” (Senge, 2005). According to the Mission-Centered Solutions, Inc. (MCSI) website, “The After Action Review is a post-shift crew debrief that incorporates and integrates both technical and human factors information.” Senge, (Senge, 2002) outlines critical features of AARs such as:

- Performance standards
- Democratic ground rules

- Review including mission review and concept of both individual units and the full force
- Facilitator/observer controller trained to enforce ground rules.

The desired end result of the AAR is that the, "...lessons can become part of the infrastructure for learning..." (Senge, 2002). In order for the organization, be it the military or the fire department, to be able to adapt to the fast paced changes of the modern world it must be able to efficiently adapt to change. Perhaps more crucial than adaptability is a way to know and ensure that operations are effective.

AARs should not just consider the technical aspects of operations. Again, quoting the Mission-Centered Solutions site:

The emotional aspect of an experience is key if you want to discuss human factors performance...most people will not "technically" remember that they were confused about a specific situation. This is an emotion and the event is remembered within the context of that emotion. Terms like "frustrated", "confused", "unsure", "apprehensive" and "pissed off" can indicate the emotional manifestation of a human factors breakdown. As time goes by the emotional aspect of the event fades and the event itself can be lost or reduced to its technical aspect only.

AARs can be used in varied ways. Some use AARs on a periodic basis whether or not a significant event has occurred. The military uses the AAR both after significant actions and after major training simulations. Slowly but surely the AAR is beginning to etch a place in the corporate world as well. While there is a basic set of information the AAR seeks to extract the format is easily adjusted to accommodate a given situation or set of circumstances.

What Happens Now?

In the aftermath of a significant event, at least in the fire departments that I am familiar with, chief officers are guided by policy as to whether or not the event warrants an incident review, more commonly referred to as a critique. Initially the critique was meant to approximate the AAR but over time it has evolved into quite a different beast.

The roadblocks to work based learning success in the fire department are partially a result of the top down hierarchy that, unlike the military model, does not promote a democratic non-punitive review of action. Senge speaks of the Army being able to "diffuse innovation in management practice throughout a large, global organization." (Senge, 2002). While the fire department is certainly not a global organization it still struggles with the diffusion of ideas and information across the constituent members.

One reason for the difficulty in work-based learning is fear. Firefighters and officers are afraid that if they publicly admit to making mistakes that they will have punitive action taken against them and that they will be the object of ridicule. This fear causes firefighters and officers alike to “clam up” ruining potential learning situations. The culture of fear and apprehension must be changed before effective learning can take place.

Given the current critique format one is not surprised that it fosters fear. After a significant event a group of chief officers sit down, review transcripts of the incident tapes, compare them to the reports made by the officers, mixes those with some inferences and then delivers critical judgment as to what did or did not happen.

The key players in the incident are left out of the loop, save for their incident reports, until the critique is convened. In a large open room with classroom type seating, an untrained facilitator stands, lecturer style at a podium, and begins to dissect the incident. Key players are not allowed to participate until the facilitator has laid out all the “facts” and then solicits comments. By the time comments are solicited most people have tuned out. The facilitator insists on only discussing their facts and issues. Time delay between the incident and the critique serves only to ensure that all but the most prominent details of the incident are forgotten, along with their associated motivations.

Perhaps most importantly the critique discussion, while it insists on dealing only with facts, tends to avoid confrontation. Pertinent details and culpability are discarded in favor of leaving everyone feeling okay and with the common urge to, “do better next time.” In other words after numerous critiques there has been a consistent and glaring failure at determining the root causes of problems and addressing them in such a way that future behavior is modified. In short the critiques are purposeless. Each critique ends with the same lessons learned producing redundancy to the point of counter-productivity. “A lesson learned is not learned until behavior changes.” (Baird, 1999).

What should the AAR be like?

Critiques are necessary but are a distinctly different function from an AAR. Dave Martin compares critiques to AARs by saying, “AARs are different from critiques in that they do not assign individual blame or criticism and they are more democratic.” (Martin, 2005). He also addresses the issue of “feelings” as they relate to AARs stating, “...great care must be taken to prevent hurt feelings.” (Martin, 2005). This would seem to support the current practice of using the possibility of hurt feelings as a mechanism for avoiding pertinent truths. We are, however, able to work past this though using the words of Baird (Baird, 1999) as an example:

As adults we spend far too much time worrying about whether we will fall or not. And we spend far too much time worrying about what we know. Rather than focus on either, we should focus on doing and learning. What you know does not count until it is applied.

The thing that must always be remembered is that the desired end result of the AAR is positive changes in behavior; constant operational improvement. This result is more crucial than the prevention of hurt feelings.

Confidentiality plays a huge role in the AAR process. All participants have to believe that they can “speak freely without fear of retribution or attribution.” (MCSI, 2002). The location of the AAR can be anywhere that is private. Drawings and other data from the session should be destroyed. And there should be strict repercussions for anyone violating the confidentiality of the proceeding. (MCSI, 2002)

Benefits of AARs

MCSI outlines the components of the after action review and from that listing the benefits of conducting such a practice are clear. MCSI notes that the AAR is the primary tool for tying the events of a given day into the learning process. It does this by providing a forum for the figuring out what the root causes of crew behavior were, both positive and negative. Many times, because each person has a different perspective on events the AAR is a way to bring those separate perceptions of what happened towards a more truth based commonality. The conduct of AARs also teaches individual crew members how to dispense and accept critical review of their actions and the actions of others, improving their ability to resolve conflict and communicate with one another. Finally, while the AAR is not the primary doctrinal guidance of an organization, it is able to reinforce doctrine and redefine what is and what is not acceptable behavior. (MCSI, 2005)

Extensive use of AARs can even serve to redefine organizational culture and operative norms. Quoting Senge, “Those lessons can become part of the infrastructure for learning that has emerged, as the teams with their own individual AARs gradually create the new organizational culture.” (Senge, 2002). Perhaps even more beneficial to the individual and the organization is that, “the AAR requires, “...not only the acquisition of new knowledge but the acquisition of meta-competence-learning to learn.” (Gray, 2001). Once the employee learns how to learn and can apply those lessons true growth can begin on personal, organizational and professional levels.

Limitations of AARs

AARs are great learning tools when properly applied but they do not come without limitations. It takes the full commitment of the organization, and time for

the process to become a part of the organization's learning paradigm. Any dearth of commitment will result in failure. Also limiting the effectiveness of the AAR is the fact that individual actors have to iterate their actions along with iterating the reasons, both logic and emotion based, for those actions. Brown, (Brown, 1998) observes, "...those students who cannot express themselves well in writing may suffer, both from a grading and a self-esteem perspective." While the AAR format we refer to here is verbal with someone taking notes for future dissemination, weaknesses in oral expression mimic the concerns of written expression. This gap in expressive ability is more crucial in light of current efforts to culturally diversify the work force. With regards to language Brown again observes, "...students whose first language is not English may find the exercise difficult and feel that it is a disservice to them." (Brown, 1998).

Improperly applied there can be a disconnect between the AAR and practice paralleling O'Connors critique of the improper application of reflective learning, when he stated, "...tutors problematized the manner in which reflective practice was presented to students as an isolated dimension of their learning rather than a way of thinking that permeated their programme more generally." (O'Conner et al., 2003). Sure the AAR can be used to reinforce organizational norms and even obliquely effect new norms but as darling noted, "AARs cannot teach organizational learning principles." (Darling, 2001).

Reflection in an action oriented world

"Work based learning is centered around reflection...it is not merely a question of acquiring a set of technical skills, but a case of reviewing and learning from experience. Secondly it views learning as arising from action and problem solving within a working environment. (Gray, 2001). This discussion is based on the fire department embracing and employing the after action report as a learning tool. It would seem at first glance that the process of after action reporting specifically and action learning in general would slow down the action processes of the fire department. Surprisingly the AAR is also an action-oriented process. Baird explains this saying, "Learning from action is not a replacement for other formal processes ...is not about discussion at the expense of action." (Baird, 1999).

Another consideration in the application of the AAR is that there is not always time to stop and talk things over during an ongoing emergency. Sometimes the AAR will have to wait until things sort of settle down. Luckily this is not a big problem. It is crucial that the supervisor or facilitator of the AAR realize the physical and emotional limitations of the those participating the in the AAR and hold them as suggested by MCSI, "Time the AAR so that it occurs when your crew is ready and able to learn." (MCSI, 2002). Again, it must always be remembered that the AAR is about learning.

Creating a custom AAR

Another feature of the AAR that makes it a good match with the fire department is the fact that the AAR can be modified to suit the situation. Emergency medical runs do not require the same reflection and data gathering as a large fire. The point as pointed out by MCSI is to “cover the technical, operational and human elements of the day.” (MCSI, 2002). Suggested subjects would include...technical performance, equipment performance, coordination, the perception of events, stress impacts, fatigue impacts, communications, and adaptations.

Conclusion

AARs are used in private industry, the military and are applicable to fire department operations. The reflective learning processes that underly the AAR form the basis for organizations developing the ability to adapt and learn on the run. It would stand to reason that the fire department, given its similarities with military thought and operations would benefit from adopting the AAR.

To make it all work though will require the support, real and functional support of fire department leadership. As with any other tool there is a learning curve that must be overcome, facilitator training that must be done, and some mistakes that must be made. The fire department must also realize that the current systemic rigidity of the hierarchical structure will require some loosening if everyone is going to be able to participate fully and engage in the new learning paradigms without fear.

Alone the AAR is not enough to change the fire department, it is but a small cog in what is a large machine re-learning how to learn. However, the fire department, given its mission, and given the quickly changing environment, must develop the necessary tools for managing both change and day-to-day operations. The AAR can facilitate that process.

