Conducting Internal Incident Reviews

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In an industry that prides itself in the ability to proactively manage risk, it is essential for us to utilize multiple approaches to gather, analyze, and incorporate risk management information into our programs. Upon the close of a significant incident and, if necessary, after a Critical Incident Stress Debriefing (CISD) of staff and participants, a thorough and thoughtful examination of the events surrounding an incident will benefit your organization regardless of the size or scope of programming conducted by your organization. Along with a meticulous statistical analysis of your organization's incident data, thoroughly developing and examining incident case studies is another critical step in enhancing your organization's risk management program.

The ultimate goal in conducting an incident review is to gather information that in turn may reduce the potential for future incidents and enhance the quality of the overall program. Johnson (1980), Hale (1983), Meyer and Williamson (1998), and Haddock (1999) provide our industry with valuable assessment tools intended to help analyze incident information and identify contributory and root causes. In our industry, however, there is little documentation or guidance on how to conduct incident investigations and gather quality information. How can we gather information to layer against the industry's assessment tools? In this paper, we will focus on how to conduct an internal review and provide a structure for the overall review process

Launching an Internal Incident Review

Who should launch a review?
Any size program or organization can perform an internal incident review. The following strategy and format is applicable to any organization, from a college outdoor education program to a large organization that conducts national or international programming. Allocation of staff resources and time constraints are challenges regardless of the size of your organization. Most organizations do not budget time or resources to conduct incident reviews so if you determine that a review is necessary, it becomes a matter of juggling priorities and creating the time to conduct the review. In reality, conducting thorough incident reviews should be one of your organization's highest priorities.

How to determine if a review is necessary
Defining the seriousness level of incidents can help determine when to launch an internal or external review. With these in place, when an incident reaches a predetermined seriousness level or threshold, it prompts specific actions and support from staff. Williamson (2000) and Satz (1999a, 1999b) include a suggested list of events or thresholds that would trigger an external review. These events include a fatality, a permanent disabling injury, or any life-threatening situation of a staff member or participant. Any incident at a level that triggers an external review also warrants an internal review. Leemon's (2000) case study provides a good example of the interaction between an internal and an external incident review. The following is a list of events that may trigger an internal review regardless of your decision to conduct an external review.

- Abuse or harassment (sexual/physical) of a Participant or Staff Member
- A situation involving law enforcement

- A vehicle accident resulting in injury
- Property Damage
- The dismissal or departure of a Participant or Staff Member
- Environmental conditions threatening program safety/success
- Conditions threatening the life of a Participant or Staff Member
- An injury/illness potentially resulting in permanent disability of a Participant or Staff Member
- A missing person (over 24 hours)
- A significant near miss
- A fatality

This is not a complete list and should not limit the scope of your organization's internal reviews. Every organization has unique risk management issues and should mold the use of internal reviews and case study analysis to strengthen organizational knowledge and practices. Therefore, rely not only on your internal thresholds, but also on the expertise of your organizational risk management professionals when deciding whether or not to launch a review.

The Internal Review Process

The internal review process consists of six distinct stages (Table 1) which include assembling the review team, identifying information sources, conducting investigative actions, developing written summaries, analyzing the information to craft a final written report, and disseminating and integrating the incident information. In order to gather as much accurate information as possible, it is important to assume a deliberate and structured investigative approach to conducting your review.

Stage 1: Assembling the Review Team
Review team members should be selected based upon their ability to be both objective and preserve a high level of confidentiality. Any review team member performing interviews of witnesses should also be trained in basic interview and facilitation skills and be an attentive, well-skilled listener. All members of the team must be able to document their findings in written form. The Internal Review Team Leader should be a member of your organization's Risk Management Team or someone responsible for risk management in your program; other members may include additional Risk Management Team members or other field staff. If possible, select team members who are disconnected from the "in-the-field" or administrative management of the original incident. This helps bring added perspective to the review. It is also important to be sure that at least one member of the review team has a level of expertise in the specific activity undertaken at the time of illness or injury (e.g. rock climbing, trail construction). To ensure the review process remains timely, member selection should begin within ten days after the close of an incident.

Stage 2: Identify Information Sources
The second stage of an internal review is to identify sources of information connected to the incident. This includes the site(s) where the incident took place, any written documentation, and people who participated or were witnesses to the incident. The incident site is usually easy to identify. Visiting the incident site can provide valuable information and a better context for your investigative team. Consider that in some instances, several different locations may provide valuable information. For example, you may find information at the area where a student was injured, on the trail where he was carried on a litter, at a helicopter-landing site, and even at the treating medical facility. Be sure to think broadly when assessing what locations may prove useful in your investigation.

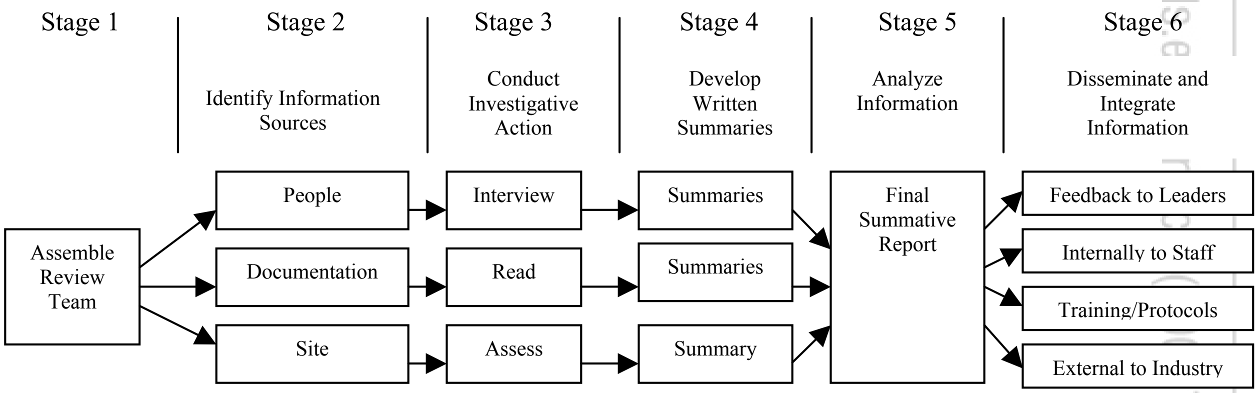

Table 1: The Internal Incident Review Process

In most incidents, the investigative team will locate the written documentation that was utilized to track vital information and communication during and immediately after the incident. It is important to utilize these resources, which may include field SOAP notes, your organization's Wilderness Risk Manager's Incident Report form, transcripts/notes from phone conversations, and other staff notes. Some less obvious paperwork resources may include documentation from rescue and ambulance personnel, cooperating organizations, and land management agencies. These documents may prove especially useful in reconstructing the chronology of events. Think broadly about the incident to uncover all the written resources for your investigation.

Although the assessment of written documentation and site information is essential, the vast majority of information will most likely be gathered from the people involved directly with, or in the management of, the incident. These people include the group leaders, group participants, staff incident managers, and search and rescue personnel. Less obvious resources may be bystanders, land management staff, and medical staff. Again, think broadly about identifying the people who may provide you with insight about the incident.

Stage 3 and 4: Conduct Investigative Actions and Develop Written Summaries
Once the review team has identified the information sources, stages three and four of the internal review process are to begin a hands-on investigation and develop written summaries. Managing the various investigative processes can be a large undertaking and may potentially absorb an immense amount of staff time. Remember that it is not necessary for all members to do the site visit, read every piece of documentation, and be present at each interview. When devising your investigative plan, think about the strengths of the members of your review team and divide the tasks accordingly.

You will most likely find that the most fruitful and potentially time-consuming information gathering process is conducting personal interviews. Extracting useful, accurate information from leaders, participants, bystanders, and others is more difficult than it may initially appear. Emotion, fear of blame, "gaps" in memory and a confounding psychological process called scripting, are just a few of the pitfalls that may challenge you. Although beyond the scope of this paper, it is important to recognize investigative interviewing is a significant skill that requires knowledge, training, and practice. Interviewing is a difficult task and there are many factors that collude to hinder both the interviewee and interviewer in the memory reclamation process.

There has been significant research on different strategies for conducting effective interviews in other related fields. One of the most effective techniques, utilized by law enforcement personnel and accident investigators, was developed by cognitive psychologists Fischer and Geiselman (1992). This technique is called the Enhanced Cognitive Interview (ECI)[1].

[1] A synopsis of the ECI strategy may be found in Milne & Bull (2000)

The ECI style of interviewing is particularly well adapted for use in our facilitation style based industry. This technique allows for the free flow of information and minimizes the challenges associated with memory retrieval. Gathering information from people during an internal review is not unlike interviewing a witness to a crime or other serious incident. They are under the influences of similar stresses and have the same challenges with memory and event reconstruction. The ECI, when adapted to our industry's particular brand of incident analysis, is an effective tool in gathering high quality, accurate information.

It is expected that upon completion of stage three, each member of the team (the individual site examiners, document readers, and participant/witness interviewers) will summarize their findings in reports to the team. It is important that these are written as accurately and as completely as possible. Ultimately, the review team leader will assume the lead on compiling the information and draft the final summative report.

Stage 5: Final Written Report
After the completion of your team's investigative actions, the review team leader should assume responsibility for compiling all the information and begin to draft the final written report. The risk management industry has focused substantial work on this stage of the review process. There are several tools available to help analyze your incident information including Johnson's (1980) *Fault Tree Analysis*, Hale's (1983) *Dynamics of Accidents* model the Meyer and Williamson (1998) *Potential Causes of Accidents* matrix, and Haddock's (1999) *Causal Pathway* analysis. It is important in the final written report to provide a thorough analysis as well as the teams conclusions and specific recommendations. The final incident report should also include:

- A header with the name of the Review Team Leader, the names of all Review Team Members, the date, and an incident reference number.
- A brief factual narrative of the incident including a chronology of events
- An analysis of the incident
- Conclusions and specific recommendations

Stage 6: Dissemination and Integration of Information
The final stage of the incident review process is dispersing and integrating the information, conclusions and recommendations of your Internal Review Team. There are many groups of individuals who could benefit from your work, both internal and external of your organization. Internally, audiences may include the leaders, students, staff, and Board of Directors of your organization. One of team's first presentations should be to your organization's Risk Management Team. Provide them with your Incident Review Report and a verbal review of the process and your findings. Clarify and answer any questions for the Risk Management Team members, remembering to utilize their insight and expertise in this first review. Their questions may help clarify your findings.

Building our organization's institutional risk management knowledge is a real challenge in our industry. In an industry with high staff turnover, it is a continual challenge to pass-on the wisdom that is gained from incident reviews. And although your team's recommendations will be integrated into your organization by adjusting policies/procedures, rewriting handbooks and manuals, and incorporating information into staff training curriculums, the organizational knowledge regarding the specifics of incidents are often lost with time. The creation of annual risk management reports (Schimelpfenig, 1993, May; Leemon & Schimelpfenig, 1996, March; Leemon, 1999, May), whether published internally or externally, can help build institutional risk management knowledge. These reports can be used to train new staff in your organization's risk management history.

One of the decisions that your organization will also need to make is whether or not to share incident information with external audiences. Gregg (2000) provides an overview of the issues surrounding the external dissemination of incident review information and there are several publications that examine incident data and incident summaries (Liddle & Storck, 1995; Leemon, Schimelpfenig, Gray, Tarter, & Williamson, 1998). But as noted by Leemon (2000), it is rare that organizations share in-depth knowledge from conducting either internal or external incident reviews. The pedagogy of

risk management and the advancement the procedures for conducting wilderness incident investigations hinge on our industry's ability to strategically develop and share high quality case studies.

Summary

Unfortunately, accidents can and do happen in the outdoor recreation and education industry. As professional risk managers, it is essential that we continue to utilize multiple approaches to gather, analyze, and incorporate risk management information back into our programs. Along with statistical analysis and a thorough understanding of your organization's incident data, conducting internal incident reviews and examining incident case studies are critical steps in enhancing your organizations risk management program. By utilizing the incident review process presented in this paper, your organization will be able to systematically approach collecting high quality information. In the end, case study analysis will ultimately increase the breadth of our industry's risk management knowledge, help to reduce the occurrence of specific incidents, and serve to increase the overall quality of our programs.

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About the Author

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Kurt has been an outdoor educator and administrator for nearly twenty years and currently serves as the Executive Director of The Boojum Institute for Experiential Education. Formerly, Kurt taught academic courses, administered the Outdoor Program, and developed the award winning ORION: Freshman Wilderness Orientation Program during his tenure at Penn State University. For nearly a decade, Kurt served as the National Director of Risk Management and Safety as well as the National Director of High School Programs for the nation's largest conservation corps, the Student Conservation Association (SCA).

While competing as a student athlete in soccer at Penn State University, Kurt earned a B.S. in Recreation and Parks Management and later, an M.S. in Leisure Studies focusing his research in outdoor recreation behavior. Kurt has written over forty articles on risk management and safety and is the co-editor of the most recent volume of the Adventure Program Risk Management Report. Kurt has spoken at many professional conferences on risk management topics, served as an accident investigator, safety reviewer, and as an external risk management and program quality reviewer and consultant. He was a member of the Wilderness Risk Manager's Committee for nine years and served a three year term as the Chairman.

Kurt currently serves on the Board of Advisors for Aerie School for Backcountry Medicine based in Missoula, MT, serves as a peer accreditation reviewer for the Association for Experiential Education (AEE), is an active member of the Temecula Rotary Club and is the Interact liaison at Great Oak High School based in Temecula, CA. Kurt is the Owner/Lead Consultant of Merrill & Associates: Risk Management and Safety as well as the Owner/Chief Apiculturist of Merrill's Honeybees. Kurt and his family currently reside in Temecula, CA.