

# problem-based learning

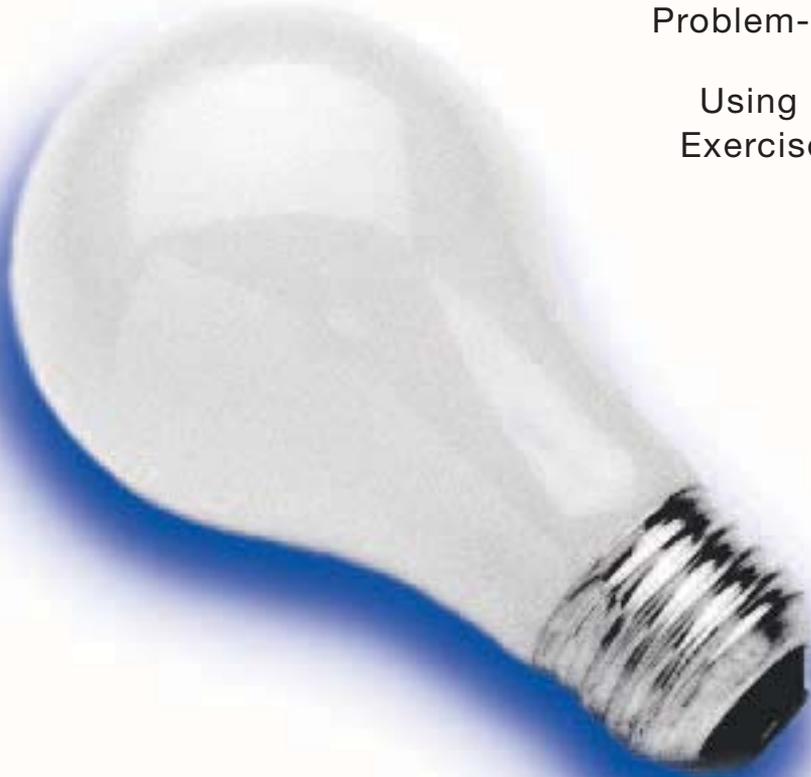
Problem-Based Learning

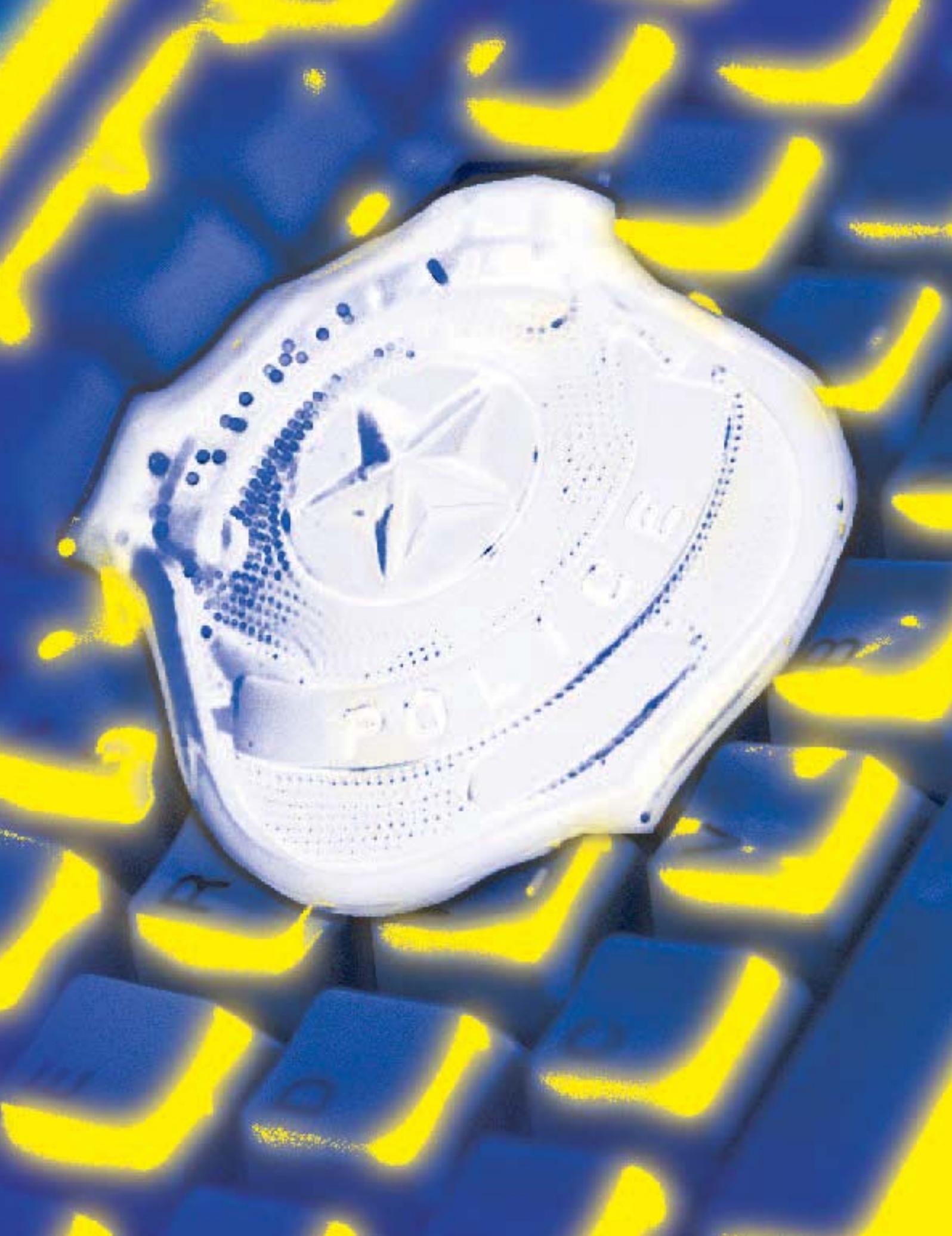
Teaching Techniques in  
Problem-Based Learning

Failing Forward

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Using Problem-Based Learning  
Exercises as a Teaching Method





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**P**roblem-based learning is a method of teaching that presents trainees with a real-life, ill-structured problem that has no easy solution. (See inset box.) The PTO model encourages the trainee to ask questions, hypothesize, research, and then solve the problem. Some of the benefits of problem-based learning include an opportunity for problem solving according to individual learning styles and the development of critical thinking skills. *Most important, the trainee learns to enlist the community as group members in his or her learning process.*

Clearly, it is critically important that trainees know and apply the proper procedures for responding to daily calls for service, violent crimes, and serious traffic incidents. Yet, it is equally important for trainees to understand how to look at such problems in a broader community context. Therefore, much of the effort in this training model focuses on process rather than content. The most tangible benefit of the model lies in its application to street situations that have neither easy answers nor obvious

### PROBLEM-BASED LEARNING (PBL)

PBL is a learner-centered teaching model that uses problem solving as the vehicle for learning. Traditionally, learning has involved a teacher or instructor delivering information as content to the learner. PBL, however, begins with presentation of a *real life* problem that the trainee must attempt to solve. The trainee follows a pattern of discovery whereby he or she expresses ideas about resolving the problem, lists known facts, decides what information to use (including naming sources for that learning) and develops an action plan to solve the problem. Several evaluation methods follow the process to determine success or failure of the action plan.

“the trainee learns to enlist the community”

solutions. This model encourages trainees to explore, analyze, and think systemically. The PBL method encourages trainees to collaborate with peers, develop resources, and communicate effectively with the community. These are the hallmarks of good police work.

Traditional field training programs evaluate trainees daily on their ability to perform individual policing tasks. In the Reno PTO model, the requirement to demonstrate basic policing skills will not change. Many of the skills are simply placed in the context of solving problems. The learning proceeds in a number of ways:

- The trainee receives one Problem-Based Learning Exercise during each phase of training. He or she works on this exercise throughout the phase.
- The trainee transfers the knowledge from this specific problem to other policing activities.
- At the end of each phase of training, the trainee presents his or her solutions to the Problem-Based Learning Exercise.
- The trainer and trainee proceed with their daily routine. They record daily calls and activities in their journals and reflect upon and develop ideas for the weekly Coaching and Training Reports.

## ILL-STRUCTURED PROBLEMS

Known in the PTO model as *Problem-Based Learning Exercises*, ill-structured problems are the foundations upon which this model rests. The characteristics of ill-structured problems include the following:

- They are not easily solved
- The trainee initially lacks essential information that he or she must obtain to solve the problem
- The trainee must consider a variety of facts and issues
- The learning occurs through the problem solving
- Learning that occurs has a real life context
- The trainee learns a process that he or she can apply to future problems

“the **requirement** to demonstrate basic **policing skills** will not change”

- At the end of the week, the trainee and the PTO select one event from the weekly activities. The event should correspond to the training phase. For example, during the *Non-Emergency Response* phase, they perform a traffic stop. The trainer or trainee may select that incident as the basis for the weekly evaluation. The trainee completes a weekly Coaching and Training Report detailing his or her performance during the traffic stop. The trainee must identify how every core policing competency featured in this model applies to that incident. The PTO comments on the trainee's progress using the same weekly Coaching and Training Report.

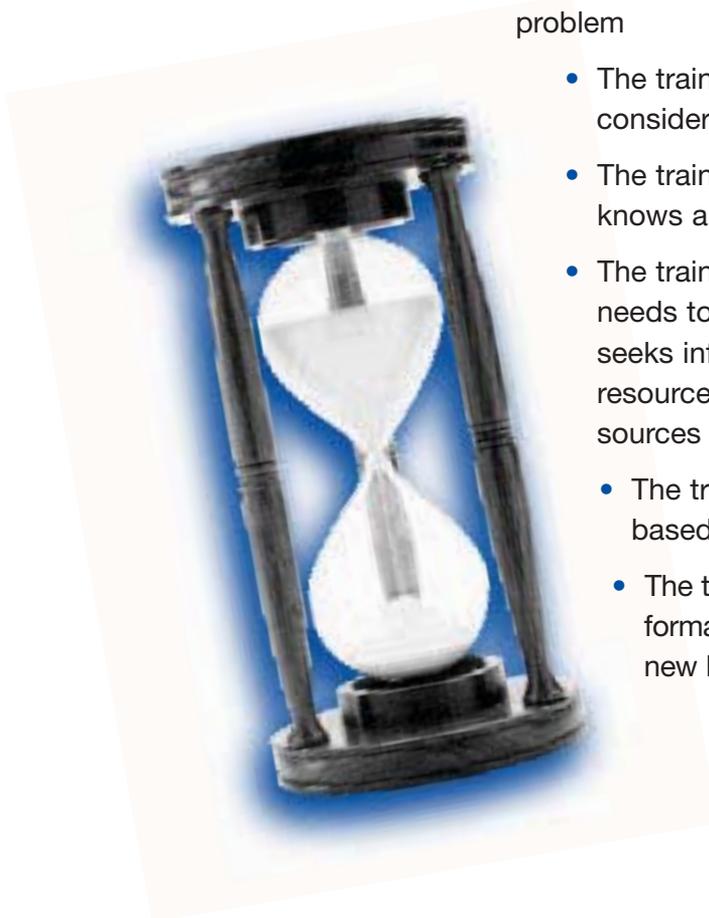
## teaching techniques in problem-based learning

**In the problem-based learning method, the** student examines a *real life* problem for study and learns to ask the right questions about the problem. The PTO supports and encourages the trainee in the process of inquiry, and guides the trainee appropriately.

The PTO presents problems and allows the trainee to go through an established process to find answers or solutions. Research over the past 15 years has shown this approach to be an effective and successful method for helping adult learners to become capable and competent problem solvers. For years, professions such as education and medicine have successfully employed PBL to train and graduate competent and confident teachers and doctors. The PBL training model, applied to the police profession, will offer the same benefits to new police officers.

PBL forces trainees to confront what they know as well as what they don't know. It requires them to ask questions, do research, and determine what actions to undertake. The following steps are the basis of the problem-solving style:

- The PTO presents the trainee with a real-life problem
  - The trainee works with the problem and considers initial ideas
  - The trainee identifies what he or she knows about the problem
  - The trainee identifies what he or she needs to know about the problem and seeks information from available resources, including relevant community sources
  - The trainee develops an action plan based on his or her research
  - The trainee evaluates his or her performance and learns to transfer the new knowledge to future problems



“the **trainee** examines a  
*real life* **problem**  
and learns to **ask** the *right*  
**questions**”

## failing forward

**M**any of our greatest discoveries occur when we fail. Contemporary police writers and leaders call this *failing forward*. Policing agencies want to minimize mistakes and provide high-quality police services. By using PBL, new police officers discover not only positive solutions to problems in the community, but also *what does not work*. Under the supervision of their PTO, trainees suggest solutions to problems, some of which may not work. Thus, learning can legitimately take place within the context of *failing forward*. Allowing trainees to explore ideas and make non-critical mistakes fosters an environment of exploration and learning. This does not absolve the PTO of the responsibility to intervene if the trainee is about to make a mistake of a serious nature.

### FAILING FORWARD

Some of our most profound learning occurs when mistakes are made. Contemporary police writers and leaders call this “failing forward”<sup>1</sup>. By using PBL, trainees discover not only positive solutions, but also *what does not work*.

<sup>1</sup> Geller, William A. and Guy Swanger. 1995. *Managing Innovation in Policing: The Untapped Potential of the Middle Manager*. Washington, D.C.: Police Executive Research Forum.

## problem-based learning exercise (PBLE)

**P**roblem-based learning in policing has unique characteristics. A key difference lies in how police trainees will establish learning groups. In other training environments, groups of students come together to form learning cohorts. They collaborate to develop an end product that will help solve the problem they receive from the instructor. In this model, however, the trainees and PTOs will form a slightly different unit. The PTO helps the trainee to use members of the community as part of his or her problem-solving team. This *community learning* facilitates the involvement of those individuals most invested in community problems. In this model, community learning is accomplished through the PBLE. (See page 31 for a specific example of the PBLE.)

“trainees **discover** not only **positive solutions** but also what **does not work**”

### COMMUNITY LEARNING

Once a trainee receives the Problem-Based Learning Exercise, he or she will form partnerships to solve the problem. Learning cohorts may include the PTO, other police officers, members of social or community services, witnesses, victims, or other members of the community. This learning dynamic is known as *community learning*.

## using problem-based learning exercises as a teaching method

**A**s noted above, PTOs will use the Problem-Based Learning Exercises as the primary teaching method with trainees. While learning will occur during daily police activities, the PBLEs will develop the trainee's problem-solving skills. This manual provides one sample Problem-Based Learning Exercise for each phase of training (see Chapters 4,5,7, and 8). In addition to the included PBLEs, trainers may develop agency-specific PBLEs. The PTO may wish to select these local problems from incidents that take place during routine patrol.



“ throughout the **training**  
the **trainee** and **PTO**  
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routine **police activities**”

In the Problem-Based Learning Exercises provided, a number of potential responses are available to the trainee. There is no one, *right* answer. In every instance, the learning will cover a variety of departmental procedures, legal topics, and individual skills.

Trainees must learn to analyze complex problems as they appear in real life. The program structure of the PTO model allows the trainee and trainer to proceed using daily policing activities. The trainee receives Problem-Based Learning Exercises from the PTO that he or she must complete within a three-week training phase. Throughout training, the trainee and PTO respond to calls for service and perform routine police activities. These activities provide the necessary background information to complete the training phase and weekly assignments. Evaluation forms for each PBLE are located in the manual (pages 55, 75, 101, 121).



### CAUTION WHEN DESIGNING PBLEs

PTOs and training staff should exercise caution when developing ill-structured problems, as these problems are often difficult to formulate. Improperly structured problems can undermine the learning outcomes for the trainee. Problems should be multi-faceted, have a variety of options for resolution, and call for the trainee to perform specific actions directed at solving the problem.