PORTLANDPOLICEBUREAU
TRAININGDIVISION

EVALUATION REPORT

2021 ANNUAL TRAINING NEEDS ASSESSMENT

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Purpose of the Training Needs Assessment

The first step of developing an annual training plan includes a needs assessment to identify where gaps exist between organizational or individual-level performance goals and current skill or knowledge levels. The gaps may stem from multiple causes, such as: changes in laws or policy, new equipment, changes in job duties, and the natural perishability of uncommonly used skills. The needs assessment begins the process of deciphering what gaps may be best addressed by training; however, often further processing will be required to fully prioritize the training topics, determine how many training hours are feasible, and identify the best delivery method for the material.

The process of a needs assessment is critical for increasing efficiency in the use of training time and maintaining a more comprehensive view of the training needs, especially in environments where the training needs are vast and compete for allotted training times. The format of needs assessments can vary greatly and can include formal or informal methods of data collection.

This needs assessment focuses on the training needs that are applicable for tenured officers delivered at In-Service and Supervisors In-Service trainings, although it summarizes new training needs for the Enhanced Crisis Intervention Team In-Service training and the Advanced Academy as well. It formalizes the analysis of some data that has been tracked by the Training Division for years. The needs assessment also formalizes the implementation of additional systems to receive further input from In-Service attendees and monitors organizational outcomes.

This report focuses on the five core law enforcement disciplines (Control Tactics, Conducted Electronic Weapon, Firearms, Patrol Procedures, and Police Vehicle Operations), crisis intervention, re-certification requirements for Oregon law enforcement, training needs pertaining to the DOJ agreement, and the following topics and sources outlined in the DOJ agreement:

- Trends in hazards officers are encountering in performing their duties
- Analysis of officer safety issues
- Misconduct complaints
- Problematic uses of force
- Input from members at all levels of PPB
- Input from the community
- Concerns reflected in court decisions
- Research reflecting best practices
- The latest in law enforcement trends
- Individual precinct needs
- Changes to Oregon or federal law or PPB policy

Given that crowd management was a significant challenge for the City and Police Bureau in 2020, the Training Division is currently conducting a separate, comprehensive review of training needs pertaining to this topic. These trainings are being conducted separately and in addition to the training program scope of this report (e.g., In-Service and Supervisors In-Service). Therefore, most of the information pertaining to crowd response are not included in this report and will be provided in the crowd management training needs assessment.

Sources:

Training Evaluation Reports

Training Managers and Lead Instructors

Use of Force Data

Police Vehicle Operations Data

Officer Injury Data

Literature Research

Precinct Command Staff Feedback

Other Program Manager and Coordinator Feedback

Independent Police Review: Reports and IPR Director Feedback

City Attorney's Office: Court Case Review and Federal Law Changes

Annual Oregon Legislation Highlights Report

Portland Police Bureau's Policy Team

External Stakeholder Feedback

Training Needs Assessment

(Supervisors, In-Service, ECIT, Advanced Academy)

Strategic Training Plan

Annual Training Plan

Specialty Unit Training Plans

Figure 1. Needs Assessment and Training Planning Process

The process for this needs assessment and the collection of related information will be reviewed and refined as needed in order to best meet the needs for training and curriculum planning. This document is neither intended to be a final plan for what topics will be covered during In-Service, Supervisors In-Service, or Enhanced Crisis Intervention Team In-Service trainings, nor the only source of information to be used during the formation of the Strategic and In-Service training plans. It is critical that any information or suggestions in this document are reviewed within the following context:

> (1) To whom does this information primarily relate?
>
> (2) What is the best method for disseminating this information?
>
> (3) Who should distribute this information?

Some information will be best delivered through training events while other information would be better disseminated through online training, roll call videos, unit managers, direct supervision, or other means of communication. It is also important that training plans prioritize genuine and substantiated training needs and requirements, as opposed to reacting to individual suggestions or events.

Purpose of In-Service Training

The purpose of In-Service for law enforcement is to receive training pertaining to officers' state Department of Public Safety and Standards Training certification maintenance and Occupational Safety and Health Administration (OSHA) requirements, the City requirement for annual training (e.g., HRAR 2.02), the maintenance of perishable skills, new trends and equipment, updates on policy and procedural changes, and advanced law enforcement training. In general, skills perish over time when they are not used regularly. Law enforcement on patrol face a particular challenge pertaining to skill perishability, especially with events that are high-stress, low frequency in nature, as they are forced to make split-second decisions in circumstances that are tense, uncertain, and rapidly evolving. These decision points are analyzed through the totality of the circumstances and reasonableness of the officer's actions. Continual training is critical for ensuring that officers can perform at their best under these unpredictable and complicated circumstances. In addition to these low frequency/high risk situations, officers are faced with various challenges on a regular basis during more routine law enforcement encounters. The Training Division continually re-examines both the procedural and interpersonal skill components of these high frequency/lower risk encounters to enhance officers' abilities to achieve the best possible outcome.

Training Requirements from the Department of Public Safety Standards and Training (DPSST)

- Every three years officers need to accrue 84 hours of training for their Oregon Law Enforcement re-certification.
  - Twenty-four of these hours need to be in use of force (eight hours annually). Use of force training includes Firearms, Control Tactics, Conducted Electronic Weapon, and portions of the Patrol Procedures Program (e.g., scenario training).
  - Three hours need to be in ethics training (one hour annually).
  - Three hours every three years need to be in mental health training.
  - Maintenance training in Airway and Circulatory Anatomy and Physiology will likely need to be included (the exact requirements are currently in discussion following recently enacted legislation, this may be an online class offered through DPSST).
- All sworn supervisors and managers (the rank of sergeant and above) must have 24 hours in leadership training.
- DPSST mandates that every two years officers are required to receive CPR/First Aid re-certification training.

Training Requirements from OSHA

- Every year officers are required to receive training in blood borne pathogens. No specific amount of hours is required for this training.

Re-Certification Requirements from Taser

- Taser requires officers to deploy two cartridges every year to maintain their certification. Deployments that occur both on the job and in training can count towards this requirement. All officers and sergeants assigned to the Operations Branch are required to carry a conducted electronic weapon (CEW).

Current DOJ Agreement Related Training Need Priorities for all Sworn Members[1]

Topic / Skill Area	Notes
Duty to Intervene and related organizational cultural changes	The Portland Police Bureau is planning to conduct the initial ABLE Program training in 2021.
Procedural Justice and communication	This topic was covered during the 2018-3, 2019, and 2020/2021 In-Services. Additional online training was delivered to members in 2021. Additional curriculum is currently planned for the 2021 Supervisors In-Service training.

Additional CIT Refresher Training Needs[2]

Topic / Skill Area	Notes
Interactions with Project Respond and navigating clinician and officer interactions.	This training is being considered for 2022.
An introduction to the Portland Street Response program functions.	This training is being considered for 2022.
Critical incident response components during more serious, complex, and or unusual calls, such as ensuring all teams are set up prior to making contact, conducting a tactical retreat after disengaging from a call, assessing scene risk, setting up perimeters, developing and communicating tactical plans. Consider another all-play scenario.[3]	The Patrol Procedures Program has been increasing the complexity of related crisis intervention In-Service training scenarios. This appears to be working well and additional related scenario training is tentatively planned for the 2022 In-Service.

Additional training needs pertaining to mental health response are provided in Appendix B.

[1] These DOJ related training need priorities were obtained from the General Inspector overseeing the implementation of the DOJ agreement. Crowd Control was also identified as a current DOJ priority. The Bureau is currently conducting a Crowd Control training and a training needs assessment specific to this topic. These trainings are being conducted separately, and in addition to, the In-Service and Supervisors In-Service trainings.

[2] The In-Service CIT refresher training needs are determined by the Behavioral Health Unit, the external Behavioral Health Unit Advisory Committee, and the Training Division's non-sworn mental health professional. Evaluation findings from the Enhanced Crisis Intervention Team and In-Service training evaluation processes are utilized, as well as other sources of information.

[3] These are resource intensive, and staffing shortages may curtail this.

In-Progress Training Requirements within the DOJ Agreement[4]

For In-Service

Topic / Skill Area	Notes
Continue to train on proactive problem solving and to utilize, when appropriate, disengagement, area containment, surveillance, waiting out a subject, summoning reinforcements, requesting specialized unit (including ECIT officers and mental health professionals), or delaying arrest (DOJ 84 – a.iv).	The Training Division conducted training in these areas during the 2015, 2016, 2017, 2018-3, 2019, and 2020/2021 In-Services. Additional training is currently planned to be incorporated into the 2022 In-Service.

For Supervisors In-Service

Topic / Skill Area	Notes
Foster positive career development and impose appropriate disciplinary sanctions and non-disciplinary corrective action (DOJ 84 – b.iii).	The Training Division conducted training on a portion of this item during the 2018 and 2020 Supervisors In-Service sessions. Additional training is to be determined. Part of this one is pending decisions pertaining to the new accountability system recommendations and PPA contract negotiations.

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[4] These items were obtained from the DOJ Agreement, case number 3:12-cv-02265-SI. This list includes items that have not yet been fully achieved or need to be continued and may not otherwise be integrated into training planning.

In the Control Tactics program, officers obtain training in how to safely make contact with subjects, conduct searches, take subjects into custody, and counter when subjects attack an officer (including an attempt to gain control of an officer's weapon). Inadequate control results in the risk of injury or death to the public and officers, failure to reduce crime, and potential for civil and criminal liability. The program stresses reasonable control given the totality of the circumstances. The Control Tactics program has been updating their curriculum the past few years to better align with current research on Control Tactics principles and training conducted at the Department of Public Safety Standards and Training, other West Coast certifying bodies, such as the Washington State Criminal Justice Training Commission, and other large law enforcement agencies, such as the Oregon State Police.

Control Tactics techniques require refresher trainings due to the natural perishability of these types of skills. Training on new techniques is necessary to keep current with developments in research, policy, equipment, and procedures.

Identified Training Needs

Topic / Skill Area	Notes	Source(s)[5]
Ground control (including recovering to a stable platform)	This topic was covered during the 2018-3 In-Service. Additional training is being considered for 2023.	1, 6, 7, 8, 9
Segmenting (including avoiding pressure on the neck and lungs, awareness of public perceptions, and its application for cases of agitated chaotic event)	The Training Division is in the process of creating a training video for this. In addition, this is being reiterated in some aspects of the ground control training.	5
Takedowns	This topic was covered during the 2018-3 In-Service. Additional training is being considered for 2024.	1, 6, 8, 11
Techniques involving multiple officers	This topic was incorporated into the 2018-3 In-Service. Additional training is to be determined.	1, 4, 9

[5] Source coding: 1) Feedback obtained from 2015 through 2017-1 In-Service survey responses, 4) 2016 feedback from lead instructors on their top priorities, 5) Identified through other sections of the needs assessment, 6) 2017 feedback from lead instructors, 7) 2018 feedback from lead instructors, 8) 2018 In-Service learning assessment results, 9) 2019, 2020, and 2021 feedback from lead instructors, 10) Retention rate considerations with lead instructor feedback, and 11) Feedback obtained from the 2019 and 2021 In-Service survey responses.

Grappling/close-quarter encounters	This topic was incorporated into the 2018-3, 2019, and 2020/2021 In-Services. Additional training is planned for the 2022 In-Service.	1, 9, 11
Self-defense/defending from assaults	This topic was incorporated into the 2019 and 2020/2021 In-Services. Additional training is planned for the 2022 In-Service.	1, 8
Weapon retention	This training was incorporated into the 2020/2021 In-Services. Additional training is tentatively planned for the 2022 In-Service.	1, 6
Handcuffing (including high risk prone and multiple officers)	The Training Division is considering a training video for this.	9, 10
Defense against edged-weapon attacks	To be determined.	5, 9, 11
Vehicle tactics	To be determined. The Training Division is in the process of researching related current best practices.	9, 10, 11
Striking/clinch techniques	This training was conducted during the 2020 In-Service. Additional training is tentatively planned for the 2022 In-Service.	5, 9
Con sims/skill drills	This topic was covered during the 2018-3 In-Service and the 2020 In-Service incorporated a skill drill. An additional skill drill is tentatively planned for the 2022 In-Service.	6

Additional Considerations for Training Planning

- Ongoing training, multiple times per year, is needed to be proficient in control tactics skills.
- There are some requests for tailoring situations towards detectives/investigators (e.g., situations that can come up in an interview room).
- There are some requests for training pertaining to communication, such as Verbal Judo.
- Ongoing discussion on officer's tool reliance during use of force events may be beneficial.
- Two hour training blocks are ideal for retention and maximizing training time.

- With the increased use of having two officers per vehicle, there will need to be additional focus on multiple officer control tactics.
- There appears to be an increase in officer encounters pertaining to vehicle tactics needs (based on some survey findings as well as other feedback received by the Training Division).
- Other portions of the evaluation process found these additional following areas that intersect with Control Tactics:
  - Additional training on how to appropriately handle cases of agitated chaotic event (page 39).
  - More control/defensive tactics training, including weapon defense and strikes (page 24).

Retention Rates

The Training Division is continuing to collect information pertaining to retention rates of law enforcement skills. This process includes obtaining feedback from training participants, lead instructors, and Training Division supervisory staff, reviewing related external research, and utilizing internal research findings. Future needs assessments will provide progress updates on this research, although this will take years to fully develop. For an update on the estimated retention rate schedule for the core Control Tactics training skills/knowledge areas, please see Appendix D.

CONDUCTED ELECTRICAL WEAPON

Officers are trained to carry and use a Conducted Electrical Weapon (CEW) to quickly and safely resolve a violent or potentially violent encounter. These tense and quickly evolving encounters necessitate a dynamic training environment. In order to train officers to make the most reasonable decision during these confrontations, the training regimen includes weapons manipulation as well as dynamic, scenario-based training with a role player simulating a real-world situation(s), emphasizing reasonable decision making while under physical and mental stress.

Identified Training Needs

Topic / Skill Area	Notes	Source(s)[6]
Scenarios (including small spaces, drawing from holster, use of barriers, and decision making)	This was incorporated in the 2020/2021 In-Service training. Scenarios utilizing CEW will continue to be incorporated into Patrol Procedures scenario and/or other scenarios, which is currently planned for the 2022 In-Service.	2, 3, 6
Failed deployment	Discussions pertaining to this topic were incorporated in the 2020/2021 In-Service training scenarios. The Training Division is also considering covering this in future scenarios more directly, with the CEW not working.	4, 6
CEW usage combined with custody skills	This topic was covered during the 2018-3, 2019, and 2020/2021 In-Services. Additional training is planned to be incorporated into future In-Service scenario.	3, 4
Utilizing CEW within effective distances	This topic was covered during the 2018-3, 2019, and 2020/2021 In-Services. Additional training is planned to be incorporated into the 2022 In-Service scenario.	1, 5, 6

[6] Source coding: 1) 2016 In-Service learning assessment results, 2) 2016 feedback from the lead instructor on their top priorities, 3) Identified through After Action reviews and other sections of the needs assessment, 4) 2017 and 2018 feedback from the lead instructor, 5) 2018 through 2020 In-Service learning assessment results, and 6) 2019 through 2021 feedback from lead instructors.

Accuracy in probe placement when deploying under stress	This topic was covered during the 2018-3, 2019, and 2020/2021 In-Services. Additional training is planned to be incorporated into the 2022 In-Service scenario.	1, 2, 4, 5
CEW policy refresher	This topic was covered during the 2018-3, 2019, and 2020/2021 In-Services. Additional training is planned for the 2022 In-Service.	3, 4
Basic manipulation of the X2	This topic was covered during the 2018-3, 2019, and 2020/2021 In-Services. Additional training is planned for the 2022 In-Service.	1, 4

Additional Considerations for Training Planning

Conducting CEW stress courses[7] would be beneficial and provide a new training opportunity for Portland Police Bureau members. This training methodology is used by Taser International and would provide officers with opportunities for quick decision making while under stress and in a variety of circumstances. In general, Taser International encourages the incorporation of dynamic training methodologies. The CEW stress course is staff intensive, ideally requiring 30 to 50 staff people to operate. It also requires more physical exertion.

Retention Rates

The Training Division continues to collect information pertaining to retention rates of law enforcement skills. This process includes obtaining feedback from training participants, lead instructors, and Training Division supervisory staff, reviewing related external research, and utilizing internal research findings. Future needs assessments will provide progress updates on this research, although this will take years to fully develop. For an update on the estimated retention rate schedule for the core Conducted Electrical Weapon training skills/knowledge areas, please see Appendix D.

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[7] These stress courses include officers responding to multiple situations, which vary in intensity and skill requirements. It allows for practice in transitioning from various settings and portions of the stress course purposely induce physiological stress in order to provide practice in responding to situations under stress.

FIREARMS

In the Firearms program, members are trained in critical skills for ensuring safe and accurate use of firearms under various circumstances that officers may encounter. Firearms are used infrequently during the course of daily patrol. However, when an incident occurs which requires the use of deadly force, it involves a high level of safety risk and often complex circumstances. Due to the nature of these incidents, it is critical that officers come into these unexpected encounters ingrained with substantial "muscle memory" in firearm skills to allow more cognitive capacity for rapidly evolving decision making. Ongoing refreshers and new trainings in firearms are critical due to the perishability of these skills, new policies, and technological advances in firearms training.

Identified Training Needs

Topic / Skill Area	Notes	Source(s)[8]
Moving and shooting	This training is currently planned to be incorporated into the 2022 In-Service.	1, 6, 8, 9, 10
Tactical courses and/or scenario-based skill drills (including stress, decision making, coordinated team movement, and use of force)	A firearms scenario-based skill drill is being considered for the 2022 In-Service, time permitting. A tactical course is currently planned to be incorporated into the 2023 In-Service. Additional scenario-based training involving firearms is incorporated into the Patrol Procedures training.	1, 4, 6, 8
Shooting in non-standard positions (including sitting in a car, shooting through a windshield)	This was incorporated into the 2020 post Firearms Qualification training. Additional training is being considered for the 2022 In-Service.	1, 2, 6, 8
Use of cover/shooting from cover	This training was incorporated in the 2020/2021 In-Services. Additional training is currently planned for the 2022 In-Service.	1, 8

[8] Source coding: 1) Feedback obtained from 2015 through 2017-1 In-Service survey responses, 2) 2015 In-Service learning assessment results, 3) 2016 In-Service learning assessment results, 4) 2016 feedback from lead instructor(s) on their top priorities, 5) Identified through other sections of the needs assessment, 6) 2017 feedback from the lead instructor, 7) 2018 feedback from the lead instructor, 8) 2018 In-Service evaluation results, 9) 2019 through 2021 feedback from lead instructors, and 10) 2020 and 2021 In-Service evaluation results (including learning assessments).

Use of firearms under stress (weapons manipulation and mechanics under stress)	The various components of this training get incorporated into multiple training disciplines. The Firearms and Control Tactics program collaborated to offer related training during the 2020/2021 In-Services. Additional training is to be determined.	1, 8, 9
Low light conditions	This was incorporated into the 2021 Winter Firearms Qualification training. Additional training is being considered for the 2022 Winter Firearms Qualification.	1, 8, 9
Weapon transitions between the Conducted Electrical Weapon and Firearm	To be determined. The Firearms and Conducted Electrical Weapon Programs are discussing potential training methods.	1, 8, 9
Malfunction drills	These were incorporated into the 2020 and 2021 Firearms Qualification training.	1, 6
Target recognition with backdrop changes	The importance of target recognition and backdrop were reviewed during the 2020/2021 In-Service Deadly Force policy discussions. Additional training is being considered for the 2022 In-Service.	1, 8
Close-quarter shooting	This training was conducted in the 2020/2021 In-Services. Additional training is planned for the 2022 In-Service.	8, 9, 10
Various sight shooting techniques	This training was conducted in the 2020/2021 In-Services. Additional training is planned for the 2022 In-Service.	9, 10
Multiple target engagement	To be determined.	8, 9
Trigger control techniques	This training was conducted in the 2021 In-Service. Additional training is planned for the 2022 In-Service.	9

Additional Considerations for Training Planning

- Ongoing training, multiple times a year, is needed to be proficient in firearms skills.
- Other portions of the evaluation process found these additional following areas that intersect with Firearms:
    - Firearms program should instruct on shooting from positions other than standing such as from a kneeling or prone position (page 37).
    - More live tactical firearms training that includes movement (page 43).

Retention Rates

The Training Division continues to collect information pertaining to retention rates of law enforcement skills. This process includes obtaining feedback from training participants, lead instructors, and Training Division supervisory staff, reviewing related external research, and utilizing internal research findings. Future needs assessments will provide progress updates on this research, although this will take years to fully develop. For an update on the estimated retention rate schedule for the core Firearms training skills/knowledge areas, please see Appendix D.

PATROL PROCEDURES

Patrol Procedures is the discipline of synthesizing all of an officer's mental and physical skills and tools to accomplish a goal in a police contact or incident. It is the training that prepares officers for the complexity, stress, and fluid nature of patrol work. It prepares them to manage scenes by using a full repertoire of communication skills, legal knowledge, decision making, and tactical skills. Patrol Procedures utilizes a combination of scenario-based, skills-based, and classroom training methods. Training on new techniques is necessary to keep up with trends in calls officers are encountering on the job, national trends, lawsuits, and new procedures.

Identified Training Needs

Topic / Skill Area	Notes	Source(s)[9]
Active shooter	Training was conducted during the 2019 In-Service. Additional training is being considered for the 2024 In-Service.	1, 4, 5, 7
Building searches	This is being considered for the 2022 In-Service, time permitting.	1, 2, 7, 8, 9
High risk vehicle stops	Training was conducted during the 2019 In-Service and some was reinforced during the 2020 In-Service. This training topic is tentatively scheduled to be refreshed during the 2023 In-Service.	1, 7, 9
Critical incident response, including a perimeter refresher, ensuring sergeants stay in the role of scene management, and developing and communicating tactical plans	Parts of this training were conducted during the 2019 and 2020/2021 In-Service trainings. Additional training is currently being planned for the 2021 Supervisors In-Service and 2022 In-Service.	1, 2, 5, 9
Force training in general (e.g., general decision making, deadly force encounters – including reaction times, use of cover fire, CRCRC, shoot/don't shoot decision making, use of firearms under stress, and firearm backdrop considerations)	Parts of this training were conducted during the 2019 and 2020/2021 In-Service trainings. Additional training is currently being planned for the 2022 In-Service.	1, 4, 5, 8

[9] Source coding: 1) Feedback obtained from 2015 through 2017-1 In-Service survey responses, 2) 2015 In-Service learning assessment results, 3) 2016 In-Service learning assessment results, 4) 2016 and 2017 feedback from lead instructor(s) on their top priorities, 5) Identified through other sections of the needs assessment, 6) Added to list due to retention rate feedback, 7) 2018 feedback from lead instructor(s) on their top priorities, 8) 2018 through 2021 In-Service evaluation results, and 9) 2019 through 2021 feedback from lead instructors.

Ambush response/officer safety	This topic was covered during the 2018-3 In-Service. Additional training is to be determined.	1, 4, 5, 8, 9
Officer/citizen rescue	This topic was covered during the 2018-3 In-Service. Additional training is in consideration for the 2023 In-Service.	7, 9
Post-shooting/shield	This topic was partially covered during the 2018-3 and 2019 In-Services, and the Training Division is in the process of creating an online post-shooting training. Additional training (including shield training) is being considered for the 2023 In-Service.	7, 8, 9
Foot pursuits	The Training Division is planning to conduct an online training pertaining to foot pursuit decision making after policy revisions are finalized.	1, 9
Scenario training, including force on force decision making, tailored scenarios focused on new skills, incorporating multiple law enforcement roles, plainclothes assignments, increased complexity/fully completed scenarios, interacting with uncooperative people, mental health related scenarios (including disengagement with a plan, Public Safety Support Specialist roles, more challenging/less common mental health symptoms, medical components, increased stress, ambush, shoot/don't shoot decision making, use of cover and movement, crossfire awareness, shields, Control Tactics, Police Vehicle Operations, Firearms, and Conducted Electronic Weapon skills)	This topic was partially covered during the 2019 and 2020/2021 In-Service trainings. Additional training is currently being planned for the 2022 In-Service. In addition, the Training Division has begun familiarizing members with the VirTra De-escalation and Use of Force Training Simulator, which will be used to increase capacity in scenario-based training.	1, 2, 5, 9
Investigator/detective specific training	A Detectives In-Service was conducted in 2019. The Training Division is currently exploring additional ways to better meet the training needs of investigators and detectives.	1, 5

Interacting with uncooperative people (e.g., uncooperative occupants during a building clear)	This was conducted during the 2019 In-Service scenario training in procedural justice. Additional training is to be determined.	1, 5
De-escalation skills (including identifying when de-escalation attempts are ineffective and utilizing time as a tactic)	This topic was incorporated into the 2018-3, 2019, and 2020/2021 In-Service scenario trainings (some along with procedural justice skills). Additional training is currently planned to be integrated into the 2022 In-Service scenario training.	3, 5, 8
Assessing scene risk and subject threat levels	This topic was covered during the 2018-3, and 2020/2021 In-Service trainings. Additional training is in consideration for integration into the 2022 In-Service training.	3, 5
Emergency entry	This training was conducted during the 2020/2021 In-Services. Additional training is to be determined.	9
Patrol Procedures Principles for problem solving	This training is currently being planned for the 2022 In-Service.	9
Use of firearms involving vehicles	To be determined. This will likely be a collaborative training effort among the Firearms, Police Vehicle Operations, and Patrol Procedures Programs.	9
Counterterrorism and explosive devices	To be determined.	4

Additional Considerations for Training Planning

- In general, more training time and opportunities are needed for effectively meeting the full scope of training needs.
- Other portions of the evaluation process found these additional following areas that intersect with Patrol Procedures:
  - Integrate reminders, where appropriate, pertaining to officers explaining the reasoning behind their actions or lack of actions in certain circumstances may help reduce some complaints (such as through the scenarios focused on Procedural Justice; more information can be found on page 26).
  - Sergeants maintaining an operational (rather than tactical) role when possible (page 29).

- Development of the upstairs of the Training Complex would allow for conducting more scenarios simultaneously, maximizing training time.
- The lead instructors need more time for curriculum research and development, as well as for further training and mentoring of the satellite instructors.

Retention Rates

The Training Division continues to collect information pertaining to retention rates of law enforcement skills. This process includes obtaining feedback from training participants, lead instructors, and Training Division supervisory staff, reviewing related external research, and utilizing internal research findings. For an update on the estimated retention rate schedule for the core Patrol Procedures training skills/knowledge areas, please see Appendix D.

In the Police Vehicle Operations (PVO) program, Bureau members receive training related to safely and efficiently handling police vehicles in challenging traffic environments, various road conditions, during pursuits and emergency situations, and with multiple distractions. PVO training integrates tactical decision making, state law, and Bureau policy with physically operating the police vehicle under stress in different conditions and circumstances. Refresher training is critical for ensuring officers will be able to utilize low frequency vehicle maneuvers, such as pursuit intervention techniques (PIT), safely and accurately when needed. Continual training is also important for reducing liability with collision avoidance, staying proficient in driving fundamentals, practicing PVO techniques with new police vehicles, integrating new policy changes, and staying apprised of technological advances in car safety and driving systems.

Identified Training Needs

Topic / Skill Area	Notes	Source(s)[10]
Pursuits (including scenarios, pursuit driving on a track, management, decision making, and spike strips)	This was included in the 2018, 2019, and 2020/2021 In-Services. Additional training is being considered for the 2023 In-Service.	1, 5, 9
Scenarios (including PIT and Box-in techniques, high-risk stops, and ambush with escape driving)	Scenarios involving PVO topic areas will be incorporated into Patrol Procedure and other In-Service scenarios. The Training Division conducted a high-risk stops training scenario in the 2020 In-Service. Additional scenarios are being considered for 2022.	1, 8, 9
High risk vehicle stops	Training was conducted during the 2019 and 2020 In-Service sessions. Additional training is being considered for the 2023 In-Service.	5, 9
PIT (including post-positioning)	PIT was included in the 2018-1 In-Service. PIT and Post-PIT are tentatively planned for the 2022 In-Service.	1, 2, 7, 8, 9

[10] Source coding: 1) Feedback obtained from 2015 through 2017-1 In-Service survey responses, 2) 2015 In-Service learning assessment results, 3) 2020 In-Service learning assessment results, 4) 2016 feedback from lead instructor(s) on their top priorities, 5) Identified through other sections of the needs assessment, 6) Collision data, 7) 2017 and 2018 feedback from lead instructor(s), 8) Feedback obtained from 2018 through 2021 evaluation results, and 9) 2019, 2020, and 2021 feedback from lead instructors.

Box-in (including post-positioning and making contact with at least two points of the car)	This was covered during the 2018 In-Service training and an online refresher training was delivered in 2021. Additional training is being considered for the 2023 In-Service.	1, 7, 8
High speed driving (including with hybrid FIUs)	This was included in the 2018-1 In-Service. Additional training is tentatively planned for the 2022 In-Service.	1, 9
Backing (with FIUs)	This was included in the 2018-1 In-Service. Additional training is tentatively planned for the 2022 In-Service.	1, 2, 6, 7
Intersections	To be determined.	1, 7
Collision avoidance drills	Training was conducted during the 2019 In-Service. Additional training is tentatively planned for the 2022 In-Service.	1, 4, 6, 7
Lane changes	Training was conducted during the 2019 In-Service. Additional training is to be determined.	1
ABS/threshold braking	Training was conducted during the 2019 In-Service. Additional training is tentatively planned for the 2022 In-Service.	1, 9
Accurately judging distance	This was included in the 2018-1 and 2019 In-Service trainings. Additional training is being considered for 2023 In-Service.	6

Additional Considerations for Training Planning

- Obtaining training space at Portland International Raceway or a similar venue will be critical for staying current on Police Vehicle Operations training needs and conducting the 2022 training plans.

Retention Rates

The Training Division continues to collect information pertaining to retention rates of law enforcement skills. This process includes obtaining feedback from training participants, lead instructors, and Training Division supervisory staff, reviewing related external research, and utilizing internal research findings. The needs

assessments will provide progress updates on this research, although this will take years to fully develop. For an update on the estimated retention rate schedule for the core Police Vehicle Operation training skills/knowledge areas, please see Appendix D.

TRENDS IN HAZARDS OFFICERS ARE ENCOUNTERING IN PERFORMING THEIR DUTIES AND OTHER OFFICER SAFETY ISSUES

Officers encounter numerous hazards and other officer safety issues on a regular basis as a normal part of their job. These include, but are not limited to, driving hazards, being assaulted during arrests and other policing encounters, exposure to pathogens and hazardous materials, issues with sleep disruption common for shift workers, exposure to excessive amounts of trauma, and exposure to the effects of gunfire. In addition to these hazards and officer safety issues, officers may encounter new hazards due to changes in cars or equipment, road conditions or structures, coverage for their shift or precinct, policy, radio dead spots, crime or call types, etc.

Identified Training Needs for General In-Service Audience

Topic / Skill Area	Notes	Source(s)[11]
Legal authority for calls-for-service to abandoned homes of transients moving in the home. No person in charge, owner or bank representative is able to be reached to approve the removal. Sometimes the property does not have a trespass agreement.	The progress of this online training is currently on hold due to Bureau staffing changes. The Training Division will follow-up with the new staffing for coordinating houselessness information. The plan for this online training is to incorporate this need and one under Individual Precinct Needs.	1
Managing job related stress for officers (including reducing and managing stress pertaining to work-related investigations and complaint processes, major crowd control events and civil unrest, and anti-police sentiments encountered on the job)	The Training Division conducted a portion of these training needs during the 2020 and 2021 In-Services. Training pertaining to organizational wellness, including the importance of and how best to support employee wellness, is planned for the 2021 Supervisors In-Service. The Wellness Program has also been delivering restoration trainings during 2021 to Bureau members. Additional training plans are to be determined.	1, 2, 6, 8
More control/defensive tactics training (including weapon defense and strikes)	The Training Division is working on increasing its training offerings in control/defensive tactics.	1, 2, 4, 5, 6, 8

[11] Source coding: 1) Feedback obtained from 2014 through 2017-1 In-Service survey responses, 2) Feedback from the Training Division supervisor and command staff, the PPB's Injury and FPDR Liaison Sergeant and/or Officer, and/or the PPB's nurse, 3) , 4) FPDR injury data, 5) Use of Force case injury data, 6) Identified through other sections of the needs assessment, 7) Wellness Program needs assessment and evaluation processes, and 8) 2019 through 2021 In-Service surveys.

Topic / Skill Area	Notes	Source(s)[12]
Balancing use of de-escalation and use of force techniques (officers are relying so heavily on de-escalation techniques that they are waiting to be assaulted before using force)	To be determined.	2
General employee wellness (including fitness, nutrition, cooking, sleep, meditation, and finances)	The Training Division conducted a portion of these training needs during the 2019, 2020, and 2021 In-Services. Additional training on these topics are being considered for the 2022 In-Service and/or as optional standalone classes.	7, 8

Identified Training Needs for Supervisors In-Service Audience

Topic / Skill Area	Notes	Source(s)[12]
Command staff and supervisory training on organizational health strategies, including: How to choose and implement organizational health strategies Identifying and appropriately supporting employees in regards to healthcare needs, including appropriate and inappropriate use of accommodations	Training pertaining to organizational wellness is currently planned for the 2021 Supervisors In-Service. Additional training is to be determined. The Training Division is researching external expertise in building organizational health.	1, 2, 3, 5, 6

In addition, there were numerous additional officer injuries and stressors pertaining to the 2020 protests that were noted during the 2021 needs assessment process. These trends and training needs are being processed as a part of the Crowd Management evaluation.

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[12] Source coding: 1) Wellness Program needs assessment and evaluation processes, 2) Feedback from the Training Division supervisor and command staff, the PPB's Injury and FPDR Liaison Sergeant and/or Officer, and/or the PPB's nurse, 3) FPDR injury data, 5) Identified through other sections of the needs assessment., and 6) 2019 through 2021 In-Service surveys.

Identified Training Needs for General In-Service Audience[13]

Topic / Skill Area	Notes
Officers explaining the reasoning behind their actions. This includes being aware of how reasonable policing actions may be perceived by community members and taking a moment to explain after the fact, for example, how their direct commands were utilized for the purpose of maintaining safety. Remembering they are often interacting with people at their lowest points of their lives.	This was covered during the 2018-3, 2019, and 2020/2021 In-Service sessions. It will continue to be reinforced during In-Service Procedural Justice training. The Training Division is also considering incorporating this concept and related reporting into additional scenario debriefs where applicable.[14]
Officers explaining their lack of action in certain circumstances. For example, people often want officers to make an arrest or take an action they cannot do. At times it may be beneficial for officers to be more thorough in explaining the limits of their authority. How to communicate the news that you cannot take action in certain areas. What is the Bureau's position on why we are not taking action in certain areas?	This was covered during the 2018-3, 2019, and 2020/2021 iterations of In-Service. It will continue to be reinforced during In-Service Procedural Justice training. The Training Division is also considering incorporating this concept and related reporting into additional scenario debriefs where applicable.
When and how to utilize the procedural justice principles to assist with difficult person encounters.	This was covered during the 2019 and 2020/2021 In-Services. It will continue to be reinforced during Procedural Justice training.

[13] The information for the misconduct complaint section was gathered through reviewing Independent Police Review (IPR) Annual Reports, additional analyses provided by the IPR Analyst, Internal Affairs reviewed complaints of force, and discussions with the IPR Director, Internal Affairs Lieutenant and Sergeant, and Training Division In-Service Lieutenant and Sergeant.
Some of the items from previous needs assessments remained, as they were identified as still applicable to current training needs.

In the 2018 Annual IPR Report there was a substantial increase in the amount of police commendations reported to IPR from the community. The police commendations through IPR continued to increase in 2019 and 2020.

In 2020, there was a substantial decrease in procedure, conduct, and courtesy complaints. The Training Division will continue to monitor this to see if it becomes a continuous trend.

[14] During the 2020 needs assessment, the concern was brought up from sources both internal and external to the PPB that implementing these follow-up procedures may be becoming more difficult for officers as well. Many of the challenges are due to the increasing staffing capacity issues and budget cuts. It was also noted that officers are having a more difficult time getting community members to engage is related conversations and may be more reluctant to initiate such conversations due to the increased hostility towards the police.

Training pertaining to officer health / reducing compassion fatigue

A portion of this topic was covered in the 2017-2, 2019, 2020, and 2021 In-Services. Additional training is to be determined.

Identified Training Needs for Supervisors In-Service Audience[13]

Topic / Skill Area	Notes
General leadership and management skills, including:	
Dealing with difficult employee behavior, such as interpersonal behavioral issues and performance issues, and how to provide corrective action prior to reaching a level of misconduct.	Some of these training areas were covered in the 2019 and 2020 Supervisors In-Services. Additional training is currently planned for the 2021 Supervisors In-Service. Some of these topics have also been incorporated into the Sergeants Academy and Sergeants Mentorship Program.
Motivating and coaching employees.	
Increase familiarity with additional resources for supervisors: Bureau of Human Resources (BHR), city trainings, etc.	In addition, the Training Division is currently researching external expertise in building organizational health, effectively leading a team/division/bureau, building internal legitimacy and procedural justice, and strategic planning and implementation for achieving Unit or Bureau goals.
Supervising fairly, including between different groups such as non-sworn, officers, and command staff.	
Setting employee and/or unit goals and expectations.	
Provide base level supervisor training that includes specifics on how to deal with common supervisory challenges, scenarios, or other types of training exercises, and follow-up resources (Tips and Techniques, pocket cards, and/or articles).	

Training needs pertaining to equipping officers for use of force decision making and application are documented throughout this needs assessment. For the officers input on use of force training needs, please see the Control Tactics, Firearms, Patrol Procedures, and Conducted Electronic Weapon sections of this document. This section is specifically for a review of data related to use of force data collection systems, including related complaints and Internal Affairs Investigations.

Identified Training Needs for General In-Service Audience[15]

Topic / Skill Area	Notes	Source(s)[16]
Use of force and decision making in low frequency, high volatility, high risk/impact situations (including addressing multiple threats and tactical problem-solving under pressure)	To be determined.	5
Continued training on critical incidents and active threat situations (including distinguishing the two situations, communication with other officers such as role announcements, establishment of crime scenes, consideration to the location and condition of evidence, communication and use of negotiation with an armed subject in contained versus open scenes, and use of cover officers).	Most of this was covered in the 2019 Active Threat training and 2020/2021 Emergency Entry training. The Training Division is in the process of creating an online critical incident training for all sworn members, which is anticipated to be delivered in 2021. Additional online training in critical incident response is tentatively planned for the 2022 In-Service.	5
The importance of handcuffing in an officer involved shooting as it relates to the safety of paramedics and others.	The Training Division will include this into scenario debriefs when appropriate. An online training on post-shooting procedures is in progress.	5

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[16] Source coding: 1) Use of Force Audit Report, 2) Feedback from Use of Force Audit Lieutenant and/or Analysts, 3) Feedback from the Training Division and/or Internal Affairs supervisors and command staff, 4) Training Division's review of problematic uses of force, 5) Training Division's review of officer involved shootings, 6) Additional analyses of force data, and 7) Training Division's review of other Internal Affairs reviewed uses of force.

Problematic uses of force are defined as cases outside of the Portland Police Bureau directive. The Portland Police Bureau's Use of Force Directive is stricter than the constitutional standard. Therefore, cases determined to be unconstitutional would be included. Cases that have the potential for being problematic uses of force are referred to Internal Affairs of the Professional Standards Division, either through internal means or by the Independent Police Review.

Trends and training needs pertaining to crowd management are being processed as a part of the Crowd Management needs assessment.

Understanding the importance of the Box-in technique (including an understanding of the consequences of not using it).	To be determined.	2
Defining de-escalation for report writing.	The Training Division is tentatively planning to create an online training in 2022 to provide clarity regarding the current definition of de-escalation for Use of Force report writing.	4
Verbally describing use of force actions, such as when a sergeant arrives on scene to review an incident.	The Training Division has incorporated this item into scenario training and has observed good results. Additional training is to be determined.	3

Identified Training Needs for Supervisors In-Service Audience

Topic / Skill Area	Notes	Source(s)[13]
Notification procedures for officer involved shootings.	An instructional email regarding notification procedures for officer involved shootings was sent to command staff in 2021. The Training Division will continue to monitor whether or not this remains a training need.	5
Sergeants maintaining an operational (rather than tactical) role when possible.	The Training Division has emphasized this during Critical Incident and scenario trainings. Additional training is currently planned to be incorporated into the 2021 Supervisors In-Service.	3, 5
Use of Force report writing review (including articulation of active aggression, defining control takedowns, and distinguishing between force warning, de-escalation, and command).	A part of this was incorporated into the 2021 Crowd Control training. The Training Division is tentatively planning additional training, in collaboration with the Force Inspector, for the 2022 Supervisors In-Service.	2
Critical Incident Management, including rapidly evolving incidents in which the Incident Commander has little information when assuming command and when to remain in the supervisory role and managing overall precinct resources during critical incidents.	A part of this was included in the 2021 In-Service Emergency Entry scenario training. Additional training is currently planned for the 2021 Supervisors In-Service.	3, 5

Identified Training Needs[17]

The Training Division has been providing extensive training involving case law since 2016, through a combination of yearly In-Service training sessions and regular online trainings. At the time of this needs assessment report, the Training Division is up to date in this training category. However, the Training Division and City Attorney's Office will continue to regularly review and provide members training material on new case law.

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[17] The Training Division works in collaboration with the City Attorney's Office for identifying trends reflected in court decisions. The City Attorney's Office examines state and federal court cases to identify court decisions that may be applicable to Oregon law enforcement. The sources for these cases primarily come from the United States Supreme Court, Ninth Circuit Court, Oregon Supreme Court, and Oregon Court of Appeals rulings. The findings from these cases are summarized and provided to the Training Division for review as a part of the training needs assessment process. Since the 2020 needs assessment, the Training Division received 60 additional case summaries. The Training Division examines the findings for trends and relevancy to training for Portland Police Bureau Officers. This examination utilizes the court decision findings as well as other information gathered throughout the needs assessment process.

CHANGES IN OREGON AND FEDERAL LAW

Identified Training Needs for Oregon Law Changes

Law[18]	Notes	Year
SB 257 – Modifies ORS 162.415 to elevate certain cases of official misconduct in the second degree to official misconduct in the first degree.	For City Attorney portion of In-Service.	2017
HB 2356 – Creates crime of invasion of personal privacy in the first degree.	Tips and Techniques	2015
HB 2596 – Provides that person who records another person's intimate areas commits crime of invasion of personal privacy.	Tips and Techniques	2015
SB 173 – Authorizes person licensed to carry concealed handgun to present valid license instead of providing firearm to peace officer for examination when possessing firearm in public building.	Tips and Techniques	2015
SB 614 – Provides that peace officer may enter motor vehicle and impound animal when peace officer is authorized by law and has probable cause to believe animal is being subjected to certain criminal offenses.	Tips and Techniques	2015
HB 2317 – Extends statute of limitations of certain sex crimes from six to 12 years after commission of crime or, if victim was under 18 years of age, any time before victim attains 30 years of age.	Tips and Techniques	2015
SB 641 – Prohibits law enforcement agency from obtaining by forensic imaging information from portable electronic device without warrant except when authorized by consent.	Tips and Techniques	2015
HB 3468 – Adds threatening to cause physical injury to animal to induce other person to engage in conduct as manner of committing crime of coercion.	Tips and Techniques	2015

[18] Information pertaining to Oregon Law changes is gathered from the Oregon State Bar's annual Oregon Legislation Highlights reports and the City Attorney's Office. These findings are vetted through some of the Training Division's supervisory staff to help determine which warrant additional future training. At the time of this reporting some of the recent legislative changes are still in discussion with the City Attorney's Office regarding any additional training needs.

HB 4116 – Modifies ORS 811.507 (offense of driving a motor vehicle while using a mobile electronic device), by modifying the definition of "driving" and "hands-free accessory".	Tips and Techniques or video training	2018
HB 4145 – Modifies several statutes relating to firearms, firearm offenses, ammunition, background checks, and firearm reporting; including establishing a Class A misdemeanor for certain people who unlawfully possess firearms or ammunition.	Tips and Techniques or video training	2018
SB 1604 – Modifies the police arbitration law limiting changes to certain types of imposed discipline.	Tips and Techniques	2021
HB 4210 – Modifies the suspension of driving privileges law, eliminating suspension due to failure to pay fines.	Tips and Techniques	2021

Identified Training Needs for Federal Law Changes[19]

The City Attorney's Office examines federal court decisions for any changes in federal law pertinent to Oregon law enforcement. There were no federal law changes pertinent to law enforcement identified for the time period of September 2020 through July 2021.

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[19] Federal law changes are obtained from the City Attorney's Office throughout the year. A City Attorney reviews and summaries Oregon and Federal court decisions that are applicable to the Portland Police Bureau.

CHANGES IN PPB POLICY

Identified Training Needs[20]

There were no additional training needs identified for directive changes that have been completed. However, there are several directive changes in progress that have anticipated training needs.

Upcoming Directives Still Under Review

Policy	Notes
320.00 Disclosure of potential exculpatory or impeachment	Planning for an online knowledge check for all sworn members. Additional online training is in consideration.
1010.00 Use of Force	Planning for an online knowledge check. Additional online or classroom training is to be determined.
635.10 Crowd Management/Crowd Control	The Training Division is anticipating additional training regarding this Directive will be conducted once changes are finalized.
905.00 Non-Force After Action Reporting and 900.00 General Reporting Guidelines	These are being reviewed for potential changes pertaining to Crowd Control reporting. Once done review for any training implications.
660.00 Criminal Intel	Planning for an online knowledge check. Any additional training needs are to be determined.
630.35 Responding to Alarm Calls-for-Service	The Training Division is planning to cover these updates in an online training with the Business Services Division Alarm Coordinator pertaining to alarms and recording false alarm responses.

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[20] A list of Portland Police Bureau directives that were newly formed or amended between July 2020 through June 2021 was obtained from the PPB's Policy Lieutenant and Analysts. The list was vetted through the Policy Analysts, as well as the Training Division's In-Service management to determine which directives warranted future consideration during training planning.

| DIR 640.38, Interacting with Members of the LGBTQIA2S+/Queer Community | EIO is planning additional training. |

The Training Division tracks and vets community and stakeholder input pertaining to the training needs of tenured officers. Input from the community and external stakeholders come from a variety of sources, and the sources referenced below are not an exhaustive list. The Training Division continues to look for ways to improve our connection with the community and external stakeholders in order to solicit feedback on the training needs of officers.

The recommendations included below are specific to training content. Recommendations related to training processes have been noted and continue to be monitored by the Portland Police Bureau.

Identified Training Needs for General In-Service Audience

Topic / Skill Area	Notes	Source(s)
Provide members more opportunities to practice interpersonal skills related to procedural justice, design a training scenario where all officers can rehearse the skills needed for respectful, fair, empathic, and effective communication with members of the community, and can receive feedback on their performance (including training officers on the importance of follow-up in terms of community satisfaction and perceptions of procedural justice).	This topic was taught in the 2018-3, 2019, and 2020/2021 In-Service iterations. The Training Division will continue to reinforce these skills.	1, 9, 11, 18, 20
Provide specific training on interpersonal aspects of policing, including mental health crisis response, diversity/sensitivity, and de-escalation.	This was included in the 2018-2, 2018-3, 2019, and 2020/2021 In-Service sessions. The Training Division will continue to reinforce this training topic.	2, 3, 7, 9, 11, 18, 20
Emphasis on good communication during tactical events.	The Training Division will continue to emphasize this in In-Service scenario training debriefs where appropriate.	7
The Firearms Program should instruct on shooting from positions other than standing such as from a kneeling or prone position.	This is now also incorporated into the post Firearms Qualification training. Additional training is tentatively planned for the 2022 In-Service.	7

The Control Tactics Program should continue to instruct officers on ground fighting and recovering to a stable platform.	This was covered during the 2018-3 In-Service. Additional training is to be determined.	7
Provide training focused on officer physical health including: physical functionality, yoga, mindfulness and nutrition.	The Training Division has provided a portion of this training in the 2019, 2020, and 2021 In-Service sessions. Additional wellness training is tentatively planned for the 2022 In-Service.	8
Provide training that strengthens police-community relations and solves neighborhood problems, such as foot patrol and problem-oriented policing.	The Training Division is planning to hire a curriculum development specialist to assist with the creation of this training.	10, 18, 20
PPB should expand on existing efforts to provide emotional intelligence training to officers. This training should be integrated into officer wellness, implicit bias, procedural justice, leadership and public outreach training.	Emotional Intelligence (EI) training is delivered throughout officers' careers starting at the Basic Police Academy. Training Division members have attended an advanced EI training for Leadership offer by the Washington State Criminal Justice Training Center and are exploring how best to incorporate this training inside the PPB. The Training Division will also continue to work with underrepresented groups to inform these training topics[21].	13, 20
Train officers on the importance of follow-up in terms of community satisfaction and perceptions of procedural justice.	The Training Division continues to emphasis procedural justice during In-Service. Additional training is to be determined.	17, 18
Training should be done with officers on the interpretation of the Retaliation Directive, 310.20.	To be determined.	5

[21] The Training Advisory Council has informal recommended utilizing video to provide more community voice in training. A formal recommendation is in progress.

Cultural competency and community-based training videos.	The Training Division has been developing online video training, which incorporates voices from the community.	3, 19, 20
Deliver bystander intervention training, specifically Active Bystandership for Law Enforcement (ABLE).	The Training Division plans on delivering the first part of this training in 2021. Additional training is currently planned for 2022.	3, 4, 14
Additional training for officers on how to appropriately handle cases of an agitated chaotic event.	To be determined. The Training Division is considering incorporating this into the next segmenting In-Service class.	5

The source coding for the previous section includes the following:

1) Compliance and Outcome Assessment Report of the Compliance Officer and Community Liaison. May 15, 2019.

2) Semi-annual Outcome Assessment Report. May 2017.

Compliance Report of the Compliance Officer and Community Liaison. First and Second Quarters: January through June 2016. March 3, 2107.

Semi-annual Outcome Assessment Report. November, 2016.

Compliance and Outcome Assessment Report of the Compliance officer and Community Liaison. Third and Fourth Quarters: July through December, 2016.

Compliance and Outcome Assessment Report of the Compliance officer and Community Liaison. January through September, 2017. Filed December 7, 2017.

https://www.portlandcocl.com/reports

3) Compliance Officer and Community Liaison Quarterly Report: Quarter 3 Updates & Analysis. November 23, 2020.

https://www.portlandcocl.com/reports

4) Compliance and Outcome Assessment Report of the Compliance Officer and Community Liaison Quarterly Report: 2020 Quarter 4 Analysis, October 1 to December 31, 2020.

5) From the Professional Standards Division's list of training requests that come through the Police Review Board, the Department of Justice, the PPB case review processes, the City Auditor, and various other auditors and community advisory groups.

7) Report to City of Portland, Portland Police Bureau, Officer Involved Shootings. Sixth Report. January 2019. OIR GROUP https://www.portlandoregon.gov/ipr/article/711304.

8) Training Advisory Council Official Recommendation, Establishing an Effective Wellness Program. May 8, 2019. https://www.portlandoregon.gov/police/article/731482.

9) The Portland Police Bureau Strategic Insights Report. https://www.portlandoregon.gov/police/article/725900.

10) Compliance and Outcome Assessment Report of the Compliance Officer and Community Liaison: Section VIII and IX. October, 2017 to December, 2019.

11) Compliance and Outcome Assessment Report of the Compliance Officer and Community Liaison: Section IV and VII. October, 2017 to December, 2019.

13) Training Advisory Council Official Recommendation – Emotional Intelligence, September 11, 2019. https://www.portlandoregon.gov/police/article/745937.

14) Compliance and Outcome Assessment Report of the Compliance Officer and Community Liaison Quarterly Report: 2020 Quarter 1 Analysis, January 1 to March 31, 2021.

17) National Law Enforcement Applied Research & Data Platform, Perceptions of Portland Police Bureau among Persons with Recent Police Contact: Results of an SMS Survey, December 20, 2019.

18) DHM Research City of Portland Community Policing Report, February 2019.

19) Additional technical assistance provided by the COCL.

20) The Portland Police Bureau Community Engagement Plan, https://www.portlandoregon.gov/Police/article/744533.

Identified Training Needs for Supervisors In-Service Audience

Topic / Skill Area	Notes	Source(s)[22]
Ensure that the requirements found in Section IV of the Settlement Agreement – Training are applied to ECIT, Advanced Academy, In-Service, and Supervisors In-Service.	The Training Division will continue to integrate these items into the 2021 Supervisors In-Service and 2022 In-Service trainings.	2, 7
Provide Organizational Change Management leadership training (or something similar) for the Chief, all senior management, and selected trainers.	To be determined. The Training Division is currently researching external expertise in building organizational health, effectively leading a team/division/bureau, building internal legitimacy and procedural justice, and strategic planning and implementation for achieving Unit or Bureau goals.	4
Training should remind supervisors about donning ballistic helmets as part of their critical incident training.	The Training Division is providing members a reminder for this through online training which is planned to be delivered during 2021.	7
Provide supervisor coursework related to "good supervision"; addressing problematic behavior, coaching, and organizational justice.	A portion of this topic was covered in the 2019 Supervisors In-Service, Sergeants Mentorship Program, and the 2020 Sergeants Academy. Additional training on this topic is to be determined.	2
General leadership and management skills, including:	A portion of this topic was covered during the 2019 and 2020	6

[22] Source coding: 1) Plaintiff's Notice of Second Periodic Compliance Assessment Report *United States v. City of Portland*; Case No. 3:12-cv-02265-SI Document 124 Filed 10/18/16 https://www.portlandoregon.gov/police/article/595056
2) Semi-annual Outcome Assessment Report. May 2017
Compliance Report of the Compliance Officer and Community Liaison. First and Second Quarters: January through June 2016. March 3, 2107.
Semi-annual Outcome Assessment Report. November, 2016.
https://www.portlandcocl.com/reports
4) From the Training Advisory Council. The Report is available to read on the TAC website http://www.portlandoregon.gov/police/61449
5) From the Professional Standards Division's list of training requests that come through the Police Review Board, the Department of Justice, the PPB case review processes, the City Auditor, and various other auditors and community advisory groups.
6) Rosenbaum, D., Watson, A., and Christoff, T. Views from Inside the Portland Police Bureau: A Survey of Sworn and Civilian Employees, May, 2015.
7) Report to City of Portland, Portland Police Bureau, Officer Involved Shootings. Sixth Report. January 2019. OIR GROUP https://www.portlandoregon.gov/ipr/article/711304.

Motivating employees, supervising fairly, fostering employee development, utilizing positive interventions, such as coaching and counseling for some corrections, holding employees accountable, and rewarding good work ethic.	Supervisors In-Services. Additional training on this topic is to be determined.

Identified Training Needs for General In-Service Audience[23]

Topic/Skill Area	Year Suggested[24]	Notes
Additional Control Tactics training opportunities are needed / Precinct Control Tactics Training reinstituted (quarterly)	2014, 2017, 2018	The Training Division is continuing to work on providing members other Control Tactics training opportunities. The reinstituting of the Precinct Control Tactics training program will be revisited after COVID.
D.A. legal updates	2015, 2018	To be determined.
More live tactical firearms training that includes movement.	2017, 2018	This was covered during the 2018-3 In-Service, 2019, and 2020/2021 In-Services. Additional training is planned for the 2022 In-Service.
Homelessness / Houselessness: How to address and utilize current abatement strategies Current rules and City resources pertaining to clean up of camps Trespassing Landlord tenant law, ORS 90.100: including squatter and campers on private property rights, public property, and evictions from hotels/shelters	2017, 2018	The progress of this online training is currently on hold due to Bureau staffing changes. The Training Division will follow-up with the new staffing for coordinating houselessness information. The plan for this online training is to incorporate this need, another in this section, and one under Trends in Hazards.

[23] Some Detectives In-Service training needs were provided during the 2019 and 2020 needs assessment processes. These included having detective-specific training in 1) interview and interrogation, and surveillance, 2) officer involved shooting/line of duty cases – including what to look for, case debriefs, and tactics to avoid, 3) Investigative Unit case studies, 4) Legal Updates with a DA and federal level perspective, and 5) Investigator specific Patrol Procedures and Control Tactics. The Training Division provided a detectives-specific In-Service training and an all sworn In-Service training in 2019. These training needs will continue to be retained and considered in the development of the future Detectives In-Services.
[24] The Training Division Captain or Lieutenant reviews these training needs and receives new ones from Precinct and Responding Unit Command Staff each year. The feedback is vetted through the Training Division sergeants and command staff to determine which concerns are applicable to the general population of patrol officers and the most appropriate venue for delivery.

Under what circumstances and timing to notify Detectives.	2018	Considering a Tips and Techniques or another online training format.
Dealing with difficult people: co-workers and community members.	2018	To be determined.
Sexual Assault Investigations (including basic trauma-informed interviewing with a victim-centered approach)	2019	The Training Division plans to work with the Sex Crimes Unit to create an online training in 2022.
Child/Elder Abuse Investigations	2019	To be determined.
Customer service training: including active listening, empathy, and scenarios	2018	This was partially covered in 2018-2, 2018-3, 2019, and 2020/2021 In-Service trainings. The Training Division will continue to reinforce these concepts during In-Service.
Media relations (including how the media works, what to expect when they show up to scenes, and how to best work with them)	2020[25]	The Training Division is planning to create an online training video for this.
Suspect identification / photo line-up procedures (e.g., for hit and run cases)	2020	The Training Division is considering creating an online training video for this.

[25] In addition, during the 2020 needs assessment process the need for the Bureau to create a new, more comprehensive communications strategy was noted. The Training Division will continue exploring any additional related training needs during the future training planning and evaluation processes.

Identified Training Needs for Supervisors In-Service Audience

Topic/Skill Area	Year Suggested[26]	Notes
Fiscal Updates: fleet and the replacement cycle, facilities, alarms and recording false alarm responses	2017, 2021	The Training Division is tentatively planning to cover this in an online training during 2022.
Leadership and supervisory skills and development: including performance management, fundamentals of supervisors' roles (including leadership self-assessment), mentoring/coaching/counseling, resolving conflicts, communication (including specifically for enhancing coaching, leadership, and mentoring), mindset, and change management.	2018, 2019, 2020, 2021	A part of this was incorporated into the 2020 Supervisors In-Service. Training pertaining to organizational wellness, including the importance of and how best to support employee wellness, is planned for the 2021 Supervisors In-Service. This topic is also being incorporated into the Sergeants Academy.
Developing and implementing internal legitimacy and procedural justice (including allowing employees input to be genuinely heard and considered).	2019	A part of this was incorporated into the 2020 Supervisors In-Service and has been incorporated into the Sergeants Academy. Additional training is currently planned for the 2021 Supervisors In-Service. In addition, the Training Division is currently researching external expertise in building organizational health, effectively leading a team/division/bureau, building internal legitimacy and procedural justice, and strategic planning and implementation for achieving Unit or Bureau goals.

[26] The Training Division Captain or Lieutenant receives new training suggestions from Precinct Command Staff via email each year. The feedback is vetted through some of the Training Division Lieutenants and Sergeants to determine which concerns are applicable to the general population of patrol officers and/or supervisors, and the most appropriate venue for delivery. In addition, the 2018-2020 Supervisors In-Service training surveys included the following survey item: "What training topics would you like to see in future Supervisors In-Service training?". In 2018, the survey also included an item asking: "How would you prioritize the following training needs for the officers you supervise: (ambush/fatal attack on officers; managing stress from sources inside PPB; managing stress from sources outside PPB; more frequent control/defensive tactics training; District Attorney legal updates; update on person-encounters/detentions, stops, mere conversation, reasonable suspicion; and active shooter training) to obtain additional feedback from supervisors". In 2020, the survey included an item asking: "How would you prioritize the following training needs for your current position?" for 22 different topics (such as strategic planning and implementation, positively influencing employee development, managing tactical incidents, communication, equity, building legitimacy and procedural justice, community policing strategies).

Officer/employee health and stress management (including when to provide officers with a Portland Police Association (PPA) representative and/or peer support, and how to reduce job related stress for officers during work-related investigations and complaint processes).	2018, 2019	Training pertaining to organizational wellness is currently planned for the 2021 Supervisors In-Service. In addition, the Training Division is currently researching external expertise in building organizational health, effectively leading a team/division/bureau, building internal legitimacy and procedural justice, and strategic planning and implementation for achieving Unit or Bureau goals.
Knowledge of Bureau of Human Relations (BHR) Directives, PPB Directives, Oregon Family Leave Act (OFLA), Family and Medical Leave Act (FMLA), Americans with Disabilities Act (ADA), the various PPB union rules, and laws pertaining to managing employees and how to appropriately apply them (including where to find help, timelines, and requirements for managing ADA accommodations).	2019, 2020	A part of this was incorporated into the 2020 Supervisors In-Service and the PPB Sergeant Academy. Additional training is to be determined.
Internal Affairs processes – following up on corrective action or an identified issue, who a supervisor can discuss the case with, and who a supervisor can talk with for more information regarding a complaint (e.g., supervisors can talk with the involved employee).	2019, 2020	To be determined.
An understanding of equity and how to appropriately apply equity principles and strategies (including generational changes in what type of leadership people are responsive to, anti-racism, gender bias, implicit bias, workplace strategies for improving equitable outcomes, cultural humility, and intersectionality).	2019	The PPB's Equity and Inclusion Office is collaborating with the PCCEP and Training Division to conduct a series of racial equity trainings.[27]

[27] The Training Advisory Council has also made informal recommendations pertaining to the importance of this training topic. This is also a part of the Bureau's Community Engagement Plan.

How to use the Bureau of Human Resources as a business partner.	2019	To be determined. The Training Division is considering an online training video.
Appropriate team building and creating a positive work environment (including how to leverage your team / know your team and their skills).	2019	This was incorporated into the 2020 Supervisors In-Service, as well as in the Sergeants Academy. Additional training is to be determined. The Training Division is currently researching external expertise in building organizational health, effectively leading a team/division/bureau, building internal legitimacy and procedural justice, and strategic planning and implementation for achieving Unit or Bureau goals.
An introduction to the Public Information Office work.	2019	To be determined.
Conducting more meaningful performance evaluations as well as other check-ins (including effectively writing performance evaluations).	2019, 2020	A part of this was incorporated into the 2020 Supervisors In-Service and the PPB Sergeant Academy. Additional training is to be determined.
Knowledge of and how to utilize Homelessness and Urban Camping Impact Reduction Program, Strategic Prosecution, Park Exclusions, and Property Abatement.	2019	The progress of this online training is currently on hold due to Bureau staffing changes. The Training Division will follow-up with the new staffing for coordinating houselessness information. The plan for this online training is to incorporate this need, another in this section, and one under Trends in Hazards.
Addressing problem employees and/or problematic behavior (including related intervention strategies, dealing with employees with interpersonal behavioral and/or performance issues, addressing employees who were previously your peers and/or friends, providing corrective action prior to reaching a level of misconduct, and procedures for supervisory investigations of minor employee misconduct).	2019, 2020	To be determined.

General active leadership skills pertaining to managing critical incident scenes. Including expanding the Active Shooter Incident Management principles to other critical incidents (e.g., active shooter, earthquakes, etc.), scenario training, and table top exercises.	2019, 2020	A portion of this was covered during the 2019 Supervisors In-Service. Bureau members are currently in the process of taking FEMA training classes on the Incident Command System. Additional training on critical incidents is planned for the 2021 Supervisors In-Service.
Managing officer involved shootings.	2019	An online training on post-shooting procedures is currently in progress. This training is anticipated to be delivered during 2021.
Crime scene management	2019, 2020	Part of this was conducted during the 2020 Supervisors In-Service. Additional training on managing officer involved shootings and major crime scenes (including GVRT) is being considered.
Knowledge of and how to implement the Incident Command System (including associated roles).	2019, 2020	The training of all sergeants in the Incident Command System is in progress.
Critical Decision Making/decision making (including table top exercises and making decisions under stress)	2019, 2020	Training on this topic was conducted during the 2020 Supervisors In-Service. Additional training is currently planned to be incorporated into the 2021 Supervisors In-Service.
Base knowledge of how to use statistics for crime interventions or patrol planning (to prepare for knowing what analyses to request and how to use the information)	2021	To be determined.
Planning and implementing missions	2021	To be determined.
Collaborating with stakeholders to address various crime issues.	2021	To be determined.

Topic/Skill Area	Year Suggested	Notes
Air support and how to coordinate with the aircraft on tactical calls (pursuits, eludes, callouts).	2021	To be determined.
Utilizing and managing non-sworn/professional staff (including their roles, ranks, skillsets, and how to manage them).	2021	To be determined.

Identified Training Needs for Advanced Academy

Topic/Skill Area	Year Suggested	Notes
Media relations (including how the media works, what to expect when they show up to scenes, and how to best work with them)	2020	To be determined. The Training Division is considering creating an online training video for this.

RESEARCH REFLECTING BEST PRACTICES AND LATEST IN LAW ENFORCEMENT TRENDS

For many years the Training Division has sent staff to trainings, conferences, and agencies in order to gain information on training trends and new innovations in law enforcement training. In 2014, the Training Division implemented a system to begin tracking information obtained from these events. The Training Division has also developed a system for reviewing and tracking literature findings pertaining to law enforcement training research, equipment, and trends. This information is utilized for identifying training needs, developing curriculum content, advancing training methods, and enhancing training related research.

Staff Trainings/Conferences, and Agency Visits

From October 2020 through September 2021, the Training Division staff was unable to attend trainings and conferences due to budget constraints and City COVID-related travel restrictions. The Training Division program managers and lead instructors have continued to research law enforcement training trends and topics within their areas of expertise through literature and information available online. This information is being utilized to support and enhance several of the training programs, including the Wellness, ABLE, and Control Tactics programs.

Literature Research Pertaining to Law Enforcement Training

The Training Division has formalized its review of literature and research on law enforcement training. The sources for information include, but are not limited to, peer-reviewed research journal articles, the International Law Enforcement Educators and Trainers, the Criminal Justice Abstracts and PsycINFO databases, the Community Oriented Policing Services, the Police Executive Research Forum, policing journals, recommendations from the COCL team, reports from other police agencies, and web searches.

The focus of these searches and reviews are on the following topics:

- Active Shooter
- Crisis Intervention
- Defensive Tactics
- Electronic Control Equipment
- Emotional Intelligence
- Firearms
- Leadership
- Officer Health
- Organizational Health
- Patrol Procedures
- Police Legitimacy

- Police Vehicle Operations
- Procedural Justice
- Racial Equity
- Use of Force

Within these topic areas, some of the categories of information gathered are:

- Best methods for delivery of particular training topics
- Retention rates and other information pertaining to the perishability of the skill
- Training/curriculum models
- Related teaching methods to increase learning
- Suggestions for related key learning objectives, training components, and exercises
- Trends in the number of training hours provided
- Training for performance under stress
- New training technologies

Since the 2020 Training Needs Assessment Report, the Training Division has focused its literature research on the topics of emotional intelligence, use of force, community-oriented policing, training retention and perishability of skills, officer health, and crisis intervention/mental health response training. A listing and brief summaries for some of these articles can be found in Appendix E.

The Training Division is continuing to review articles pertaining to these and the other topics above. To date, the current considerations that may warrant some follow-up pertaining to future training topic areas:

In-Service

Overall, the Officer Health literature support the need for trainings that help reduce officer stress and burnout, officer fatigue[28], and dealing with complex and/or stressful situations.[29] The Training Division continues to develop the Wellness program, which is working on organizing training sessions and other strategies for increasing employee health.

Some of the literature pertaining to learning and retention continue to emphasize the perishability of skills and knowledge, and support the need for more frequent training intervals. The Training Division is discussing methods for offering more frequent in-person training sessions to officers.

Supervisor's In-Service

The research on officer health[30] supports the needs for reducing organizational/bureaucratic stressors and factors that lead to officer strain and burn out. The Training Division's Wellness and

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[28] 2019 and 2021 literature review finding.
[29] 2018 and 2021 literature review finding.
[30] 2020 and 2021 literature review finding.

Leadership[31] programs have been working on organizing and/or developing related trainings. The Training Division is also working towards implementing the ABLE Program.

The police legitimacy and procedural justice literature supports supervisor and command-level training pertaining to ensuring fairness in discipline and general employee treatment, an understanding of what environmental factors enhance an officer's ability to convey procedural justice characteristics, factors besides officer interactions that impact the public's views with respect to police legitimacy and procedural justice, and general organizational health strategies.[27] The Training Division's Procedural Justice Program provided an introduction to this training topic during the 2019 Supervisors In-Service and additional training is being considered for the 2021 Supervisors In-Service.

In addition, the Training Division has been conducting extensive research into Emotional Intelligence. The current findings suggest it can have profound impacts at both the individual (e.g., perceived wellbeing, resilience, decision-making, stress management) and organizational levels (e.g., retention, leadership effectiveness, employee morale, organizational excellence). The first iteration of this research was summarized just prior to completion of this needs assessment report. Additional research is needed pertaining to training and interventions designed to enhance emotional intelligence.

The Training Division had reviewed the Rand's Fostering Innovation to Respond to Top Challenges in Law Enforcement findings. The study supports many of the Portland Police Bureau's training offerings and programs, such as those pertaining to officer health, Procedural Justice, and the hiring and training of officers. It is still anticipated that PPB may be behind in regards to technology innovations pertaining to patrol and addressing crime issues given funding limitations (e.g., patrolling and collecting data from self-driving vehicles). The Training Division will keep this on the list for furtherer assessing related training needs pertaining to these topic areas as resources become more stabilized.

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[31] The Leadership Program is currently on hold due to staffing and budget reductions.

Section III.A.3: Use of Force Supervisory Investigations and Reports

70. PPB shall continue enforcement of Directive 940.00, which requires supervisors who receive notification of a force event to respond to the scene, conduct an administrative review and investigation of the use of force, document their findings in an After Action Report and forward their report through the chain of command. PPB shall revise Directive 940.00 to further require that supervisory officers:

a. Complete After Action Reports within 72 hours of the force event;

b. Immediately notify his or her shift supervisor and PSD regarding all officer's Serious Use of Force, any Use of Force against persons who have actual or perceived mental illness, or any suspected misconduct. Where the supervisor suspects possible criminal conduct, the supervisor shall notify the PPB Detective Division. Where there is no misconduct, supervisors also shall determine whether additional training or counseling is warranted. PPB shall then provide such counseling or training consistent with this Agreement;

c. Where necessary, ensure that the subject receives medical attention from an appropriate medical provider; and

d. Interview officers individually and not in groups.

71. PPB shall maintain adequate patrol supervision staffing, which at a minimum, means that PPB and the City shall maintain its current sergeant staffing level, including the September 2012 addition of 15 sergeants.

72. PPB shall develop a supervisor investigation checklist to ensure that supervisors carry out these force investigation responsibilities. PPB shall review and revise the adequacy of this checklist regularly, at least annually.

73. PPB shall revise its policies concerning chain of command reviews of After Action Reports, as necessary, to require that:

a. EIS tracks all Directives 940.00 comments, findings and corrections;

b. All supervisors in the chain of command are subject to and receive corrective action or discipline for the accuracy and completeness of After Action Reports completed by supervisors under their command;

c. All supervisors in the chain of command are accountable for inadequate reports and analysis;

d. A supervisor receives the appropriate corrective action, including training, demotion, and/or removal from a supervisory position when he or she repeatedly conducts deficient investigations. Where a shift commander, or precinct commander, repeatedly permits deficient investigations, the shift commander, or precinct commander, receives the appropriate corrective action, including training, demotion, and/or removal from a supervisory position;

e. When, after investigation, a use of force is found to be out of policy, PPB shall take appropriate corrective action consistent with the Accountability provisions of this Agreement;

f. Where the use of force indicates policy, training, tactical, or equipment concerns, the immediate supervisor shall notify the Inspector and the Chief, who shall ensure that PPB timely conducts necessary training and that PPB timely resolves policy, tactical, or equipment concerns; and

g. The Chief or designee, as well as PSD, has discretion to re-assign a use of force investigation to the Detective Division or any PPB supervisor.

In-Service Considerations

Topic / Skill Area	Notes
Interactions with Project Respond and navigating clinician and officer interactions.	This training is being considered for 2022.
An introduction to the Portland Street Response program functions.	This training is being considered for 2022.
Increase the level of difficulty for the crisis communication training.	The Patrol Procedures Program has been increasing the complexity of related crisis intervention In-Service training scenarios. This appears to be working well and additional related scenario training is tentatively planned for the 2022 In-Service.
Critical incident response components during more serious, complex, and or unusual calls, such as ensuring all teams are set up prior to making contact, conducting a tactical retreat after disengaging from a call, assessing scene risk, setting up perimeters, developing and communicating tactical plans. Consider another all-play scenario.	The Patrol Procedures Program has been increasing the complexity of related crisis intervention In-Service training scenarios. This appears to be working well and additional related scenario training is tentatively planned for the 2022 In-Service.

ECIT In-Service Considerations

Topic / Skill Area	Notes
Utilizing more videos	The Behavioral Health Unit incorporated this into the 2020 ECIT In-Service training. Additional use of videos will be considered for future trainings.
More training on communication strategies that may be more effective given a person's mental health condition.	The Behavioral Health Unit incorporated this into the 2020 ECIT In-Service training. Additional training on this topic will be considered for future trainings.
More scenarios and hands-on training, including more comprehensive scenarios and multiple officers to make it more realistic.	The Behavioral Health Unit is discussing methods and related resource requirements for incorporating this into future ECIT In-Service trainings.

| Review of actual ECIT calls, especially unique or challenging ones (analyze/debrief, what worked, what did not work, how officers used resources outside of the box). | The Behavioral Health Unit incorporated this into the 2020 ECIT In-Service training and is currently tracking cases that may be considered for future trainings. |

The majority of the training needs for the Advanced Academy (AA) Program are identified through the evaluation process and addressed within or between Advanced Academies. This includes identifying gaps or redundancy between the Advanced Academy and other training the new recruits receive, inconsistencies in instruction, additional curriculum needs and/or enhancements, and other logistical considerations for improving the program. During 2020, the Advanced Academy analyst and lead instructors continued to refine the program based on evaluation results, logistical needs, and other information. A brief summary of some of the most current updates and/or identified needs are below. More detailed information regarding past identified training needs and related changes for the Advanced Academy can be found in the Advanced Academy Program Modifications Reports[32].

In-Progress and/or Potential Upcoming Advanced Academy Training

The Advanced Academy Police Vehicle Operations program (PVO) formalized the restructuring of its class sequencing based on survey and qualitative in-person feedback from recruits; the PVO policy session is now the first PVO session for all Academies because it has improved performance in subsequent PVO sessions. No other major changes were made to the curricula's content; however, due to the size of the 2021-1 Academy, recruits received less PVO skills hours due to the limitations imposed by the size of the driving pad. The lead instructor and analyst both recommend limiting the size of future Advanced Academies when at all possible to preserve a better ratio of skills hours in PVO. It is also recommended, based on survey results, instructor observations, and feedback received by both instructors and Training management, that the Training Division formalizes the practice of sending recruits to the additional training at Shelton for the last week of the AA as this is seen as a key component of tying PVO's training into the other training disciplines taught in the AA in a realistic way. Additionally, the PVO lead instructor and training analyst have been refining the PVO Final Exam based on past exam results. The 2022-1 exam will include at least one more question change after the wording on a reworded 2021-1 question proved unclear to the recruits; there is the possibility of more exam edits as the instructor reevaluates the questions against the course material.

The Advanced Academy Firearms program (FA) received significantly more training hours in the 2021-1 AA compared to the previous two Academies despite having shorter blocks of training time. This mix of more training time in shorter blocks benefited the program and is recommended for future Academies, including the 2022 AA. More frequent but shorter sessions were beneficial because recruits often begin to fatigue and retain less information or perform skills less well towards the end of the longer four-hour hard skills blocks. When instructors notice recruits visibly begin to fatigue they may end a session early due to safety concerns, therefore losing valuable training time.

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32 The Advanced Academy Program Modification Reports can be found at https://www.portlandoregon.gov/police/73428. One is currently in progress and is anticipated to be completed by the end of 2021.

With the shorter blocks, less training time is lost to fatigue. Additionally, more blocks of a discipline can be scheduled per week so that recruits are getting more frequent exposure and retaining more information from session to session, requiring less refresher time and leading to more repetitions, which prior Academies consistently request.

During the 2021-1 AA, the Bureau requirement for shotgun training and qualifications was eliminated (due to shotgun training now being a separate program). The instructors will continue to include basic shotgun familiarization training, but will reduce any other training time previously allotted for shotgun training and will use this time for more repetitions of other skills.

In the 2021-1 Advanced Academy, the Patrol Procedures program (PP) adapted to less training hours, shorter training blocks, and difficulties in staffing due to a shortage of available satellite instructors and lead instructors having been gone for portions of the AA. Despite this, similar to the PVO program in 2020, the PP instructors restructured some of their classes and altered the sequencing to have the first two sessions be dedicated policy courses: "Mindset" and "Fundamentals/Principles." Both of these sessions were previously part of the material for the first session of previous Academies, but were not their own sessions. Additionally, the "Fundamentals/Principles" session consisted of material that had been rethought and reformatted to make a more cohesive set of principles to apply to policing than the previous fundamentals concepts taught. It has been common in past Academy survey results for the mindset session or sessions to receive results or comments that suggest and say that these mindset and fundamentals sessions are important but redundant with the training given at the Basic Academy; however, despite the 2021-1 cohort being larger than prior cohorts, there were no comments or survey results that said these two sessions were redundant. The Patrol Procedures lead instructors intend to continue refining these two new sessions and keep them as the intro sessions for future Academies. The lead instructors are also considering administering mini "knowledge checks" similar to quizzes throughout future Academies.

Through the evaluation process, it has been recognized that there is an increase in communication and idea sharing between the instructors at DPSST and the Training Division with DPSST incrementally trying to implement more of the Advanced Academies lesson plans and strategies. Many of the lead instructors are scheduling trips to observe Basic Academies and its staff to observe where potential redundancies might arise; however, due to ongoing restrictions and closures due to the ongoing COVID-19 pandemic, the instructors have been unable to go. This will be a continuing project for all of the Advanced Academy staff to continue to eliminate redundancies and refine our training to provide the best training to recruits. In addition to this, there is an ongoing effort to change the Advanced Academy's schedule to more efficiently use the available time, such as giving hard skills disciplines shorter but more sessions to account for physical and mental fatigue. While there is a push to hold another satellite training school to broaden the available pool of satellite instructors, it must be noted that these scheduling attempts may continue to be constrained by staffing and space issues.

Conducted Electronic Weapon: Retention Rates

Topic / Skill Area	Current Estimated Timeframe for Refresher/Updated Training
Refresher on Basic Operations	One to two times per year
CEW Manipulation	One to two times per year
Deploying within Preferred Target Zones	Two or more times per year
CEW Decision Making	Once per year
Weapon Transitions	Once per year
CEW Policy	Once a year (at least on selected portions)

Control Tactics: Retention Rates

Topic / Skill Area	Current Estimated Timeframe for Refresher/Updated Training
Handcuffing	Every five years or as needed per Patrol Procedures scenario performance
Searches	Every five years or as needed per Patrol Procedures scenario performance
Standing Self-Defense	Three to five times per year
Range Drill	One to three times per year
Ground Control	Three to five times per year
Takedowns	Three to five times per year
Weapon Retention	One to three times per year
Vehicle Tactics	Every three years

Firearms: Retention Rates

Topic / Skill Area	Current Estimated Timeframe for Refresher/Updated Training
Firearm Safety Fundamentals	Integrate into every firearms training
Handgun Fundamentals (e.g., reloads)	Once per month
Handgun Marksmanship: Strong Hand	Once per month
Handgun Marksmanship: Support Hand	Once per month
Handgun Malfunction Drills	Once per month
Positional Shooting	Two to three times per year
Moving Targets	Two to three times per year
Moving and Shooting	Two to three times per year
Weapon Transitions	One to two times per year
Flashlight and/or Firearm Light	Three times per year
Low-light Conditions	Once per year
Deadly Force Policy / ORS 161.209 State Statute	Refresher/reminder Every two years or as needed with updated policies/statutes

Patrol Procedures: Retention Rates

Topic / Skill Area	Current Estimated Timeframe for Refresher/Updated Training
Building Searches	Once per year
Active Shooter	Once per year
Ambush Response	Every other year
Critical Incident Response	Once per year
High Risk Vehicle Stops	Every other year
Tactical Emergency Casualty Care	Once per year
Officer/Citizen Rescue	Every other year
Post-Shooting / Shield	Once per year
Foot Pursuits	Every other year

Police Vehicle Operations: Retention Rates

Topic / Skill Area	Current Estimated Timeframe for Refresher/Updated Training
PIT	Every one to two years
Post-PIT	Every two years
Box-in	Every two years
Pursuit Policy	Yearly refresher/reminder
Five Fundamentals (e.g., SLALOM, eyes up, smooth steering inputs, smooth pedal inputs, maintain stable platform)	Yearly refresher/reminder
Backing	Every two years
Pursuit Driving (Higher Speed Driving)	Every two years
Pursuit Training (Scenario-Based)	Every two years
Collision Avoidance	Every three years
ABS Braking	Every three years
Radio Communication	Every three years
Spike Strips	Every three years

As a part of the Training Division's research on best practices and latest trends, the Training Division has a formal process for reviewing literature and research on law enforcement training. Below are the names and a brief description of the articles reviewed since the 2020 Needs Assessment.[33] The Training Division is continuing to review articles pertaining to these and other topics.

Crisis Intervention Training

Vila, B., James, S., & James, L. (2018). How police officers perform in encounters with the public. *Policing: An International Journal, 41*(2), 215-232.

The authors described the implementation of a novel method designed to evaluate police officer behavior during public encounters. Three sets of metrics were developed using reverse concept mapping and traditional Thurstone scaling methods to objectively measure micro-level performance during complex, dynamic, and low-information police-citizen interactions that frequently require naturalistic decision-making (NDM), including deadly force judgment and decision making (DFJDM), cross-cultural tactical social interaction (TSI), and crisis intervention (CIT). Difficulty metrics were also created to control for environmental and situational factors. Metric utility was assessed in two experimental studies.

According to the authors, concept mapping is a common method for identifying and illustrating key concepts related to a topic and transforming those concepts into measurement criteria. Concept mapping is frequently used when no objective measurement criteria exist but individuals in the process are available to offer substantial subjective expertise. The authors reversed the concept mapping process to identify concrete, measureable behaviors and external factors from abstract concepts used by true experts to understand police-citizen encounters.

The authors conducted three sets of concept mapping focus groups, in which each set included their own unique panel of true experts. The DFJDM focus group consisted of 17 true experts with extensive experience in policing, firearms training, and/or deadly force research. The TSI focus group consisted of 12 true experts with extensive experience in cross-cultural operations in threat circumstances, NDM, military special operations, combined military/policing operations, and/or communication among individuals with varied world views. The CIT focus group consisted of 18 true experts with extensive experience in calls-for-service involving those with mental illness, police patrol tactics, police defensive tactics, police negotiation tactics, motivational interviewing, CIT curriculum development, treating mental illness, and/or emergency care for those in crisis.

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[33] The Training Division creates more extensive literature reviews for internal use. However, it would be most prudent for readers to refer to the original article if a full and comprehensive understanding of these articles is desired.

The reverse concept mapping process was informed by precise steps and occurred over the span of two days. Day 1 focus groups examined encounter difficulty, while Day 2 focus groups examined officer performance. On Day 1, participants in each focus group first reached a consensus regarding the most concise description of the goal for their assigned encounter. Second, participants in each focus group generated focus prompts based on their goal statement to guide difficulty and performance indicator discussions. Third, participants in each focus group nominated difficulty indicator statements for factors that make achieving the goal for their assigned encounter more challenging. During the process, overlapping statements were integrated and duplicates were removed, resulting in a final list of difficulty indicator statements. Fourth, participants in each focus group used CS Global-Gold software to independently and simultaneously sort and rate each difficulty indicator statement by level of importance and frequency in which it tends to occur in operational settings. Each indicator variable was divided into Likert-scale increments following each focus group. Based on the sorting data, the authors constructed maps, charts, and go/no-go zone charts for each focus group, which were used as visual aids during each focus group discussion of difficulty indicator statements deemed most important for achieving the goal for their assigned encounter. On Day 2, participants in each focus group followed the same concept mapping process used on Day 1 but for officer performance. The objective of Day 2 was for participants in each focus group to identify performance indicator statements for officer behaviors that increase the likelihood of achieving the goal for their assigned encounter.

The authors used Thurstone's equal-appearing interval scaling method to compute values for increments of each difficulty and performance indicator variable. The calculation of these variables made it possible to estimate the degree to which each performance indicator variable impacted the likelihood of a favorable outcome. Participants were recruited using a snowball method, in which true experts from each concept mapping focus group recommended their survey to colleagues, agencies, departments, unions, and fraternal orders in the U.S. via email. Online Survey Monkey links were also posted on various agency websites. The DFJDM participants consisted of 323 police officers/use-of-force instructors from 209 agencies in the U.S. The TSI participants consisted of 196 police officers from various agencies in Washington. Three-quarters of the TSI participants were trained in cultural awareness, and 33% had prior military experience. The CIT participants consisted of 499 police officers and mental health professionals from various agencies in the U.S. Participants were instructed to rate each indicator statement on a Likert-scale. The magnitude of each indicator statement was estimated using the median value assigned by the survey participants.

Notable focus group and survey findings for the three sets of metrics are listed below.

DFJDM Metrics

- Focus group participants generated 111 difficulty indicator statements (e.g., "the suspect has visible gang identifiers").

- Focus group participants generated 105 performance indicator statements (e.g., "the officer accurately identifies multiple suspects").

- Scores assigned by survey participants for difficulty indicator statements ranged from 1 (least impact on difficulty) to 7 (greatest impact on difficulty).

- Scores assigned by survey participants for performance indicator statements ranged from -6 (extremely negative impact on performance) to +6 (extremely positive impact on performance).

TSI Metrics

- Focus group participants generated 147 difficulty indicator statements (e.g., "the civilian is visibly hostile").

- Focus group participants generated 78 performance indicator statements (e.g., "the officer explains the purpose of the encounter").

- Scores assigned by survey participants for both difficulty and performance indicator statements ranged from 1 (least impact on difficulty) to 7 (greatest impact on difficulty).

CIT Metrics

- Focus group participants generated 90 difficulty indicator statements (e.g., "the person in crisis cannot communicate due to language barriers").

- Focus group participants generated 112 performance indicator statements (e.g., "demonstrating concern for the person in crisis' safety").

- Scores assigned by survey participants for difficulty indicator statements ranged from 1 (least impact on difficulty) to 7 (greatest impact on difficulty).

- Scores assigned by survey participants for performance indicator statements ranged from -4 (strong negative impact on performance) to +4 (strong positive impact on performance).

Community Oriented Policing

Gill, C. (2017). Community-oriented policing: Implications for officer well-being. In R. J. Burke (Ed.), *Stress in policing: Sources, consequences, and interventions* (p. 28-48). Routledge.

Community-oriented policing (COP) is a widely implemented law enforcement philosophy that prioritizes community partnerships (individuals, community groups, businesses, government agencies, service providers, media), problem-solving (systematic analysis and focus on understanding root causes of crime problems), and organizational transformation (shift in structure, leadership, and information-sharing). COP postulates that police organizations are not limited to traditional law enforcement efforts and must collaborate with members of the public to define, prioritize, and respond to crime problems. The author described the history and effectiveness of COP and its potential impact on the organizational structure and culture of law enforcement agencies and officer wellbeing. The author concluded the chapter with recommendations for addressing implementation challenges organized around the following priority areas: (1) values-based policing and performance management; (2) strategies for managing change; (3) evaluation of academy and field training; (4) first-line supervision; and (5) research agenda for COP and officer wellbeing. Notable findings are presented in the following sections.

History of Community-Oriented Policing

- Between the 1970s and 1990s, rigorous research studies on the effectiveness of criminal justice practices emerged, many of which demonstrated that rehabilitative and traditional policing practices had little impact on crime rates, calling into question the effectiveness of rapid response and reactive patrol strategies.

- Scholars argued that use of a community-oriented approach offered law enforcement agencies an opportunity to transform police operations from a call-driven response toward strengthening relationships with members of the public.

- In 1994, the U.S. Department of Justice established the Office of Community Oriented Policing Services (COPS Office) to provide funding to law enforcement agencies willing to implement COP, resulting in extensive use of COP across the country.

- The September 11, 2001 terrorist attacks and economic challenges in the late 2000s negatively affected COP implementation in the U.S., as police officers were reassigned to security-based duties.

- A renewed interest in COP is expected due to increasing recognition of its potential to enhance trust and collaboration among the public and police organizations and prevent terrorism and violent extremism in communities.

Effectiveness of Community-Oriented Policing

- There appears to be a mixed evidence base for the effectiveness of COP.

  - Research studies suggest that COP has limited impact on crime reduction.

  - Program evaluations indicate that COP can be effective for non-crime outcomes (e.g., satisfaction and perceptions of legitimacy among community members), which may indirectly impact crime prevention in the long-run.

- COP was not adopted by police organizations as a crime reduction strategy but rather to prioritize police-community engagement, order maintenance, and problem-solving above traditional law enforcement efforts.

- The focus on crime control in the criminal justice system during the 1980s and 1990s may explain why questions arose regarding the effectiveness of COP in reducing crime.

- Integrating COP and evidence-based, crime reduction strategies may be the most effective approach for crime prevention; increasing public trust; and enhancing police-community collaboration.

- The lack of clarity and guidance on implementation is the primary challenge of COP.

  - There are no specific COP implementation criteria, as it relies heavily on organizational characteristics and commitment of individual police agencies and the communities in which they serve.

  - Police organizations use a wide array of strategies (e.g., problem-oriented policing, multi-agency partnerships, foot patrol, neighborhood watch, newsletters) as evidence of COP implementation, which may not have been rigorously tested or have variable effects on crime.

Community-Oriented Policing and Officer Wellbeing

- Both organizational support and transformation are essential components of successful COP implementation, yet some organizations may be resistant to change.

- Organizational change may produce added strain on officers in the form of new responsibilities; increased workload; lack of adequate training, guidance, feedback, and support; supervision challenges; mismatch between traditional and COP approaches; and role ambiguity.

- The structure and curricula of training academies prioritize the traditional model (e.g., athletic training, use of force, task-oriented activities, safety/survival skills) and minimize COP training (e.g., decision-making, communication, community engagement).

- Failure to give equal emphasis to COP training may ultimately hinder COP effectiveness and place added strain on officers to manage competing responsibilities with limited COP-related skills and support.

- Many organizations still reward officers for adherence to the traditional law enforcement model (e.g., number of written reports, arrests, field interviews) rather than community-related performance outcomes (e.g., increased satisfaction and engagement of the community).

    - COP officers may struggle to know whether they are performing their job effectively if community-related performance measures are not prioritized.

- Poorly defined COP practices, inconsistent implementation, and poor communication across all levels of the organization may contribute to lack of support among supervisors and confusion or discouragement among officers.

- Officers are likely to be assigned to other competing roles if COP implementation is not perceived as a priority or standard operating procedure among supervisors, leading to role confusion among officers and potentially weakening community relationships.

Promise of Community-Oriented Policing for the Police

- Potential benefits associated with effective COP implementation include improved job satisfaction and performance; broadened skill set; increased task variety; greater autonomy; and improved health outcomes (e.g., fewer sick days).

- COP involves working with local residents and key social institutions, which may indirectly enhance community support and perceptions of police legitimacy when members of the public witness trusted community leaders collaborating with the police.

- Community members who work with local police officers on a regular basis are more likely to value their presence and have more realistic expectations about what police can achieve with respect to crime control.

Prioritize Values-Based Policing and Performance Management

- Values-based policing is defined as the incorporation of COP principles with the administrative processes of a police organization and is essential for organizational change.

- Police organizations must reorient organizational goals and values toward COP principles; determine how goals and values will be disseminated throughout the organization; and establish a method for supporting and rewarding employees who conform to the goals and values.

- Police organizations may convey organizational goals and values and encourage their adoption among employees through performance evaluation.

- A quantifiable list of COP activities that may serve as performance evaluation indicators include crime rates in target areas assigned to officers; number and type of external agency, community meeting, and personal contacts; information-gathering; and documentation of successful projects.

- Electronic communication (e.g., social media, e-mail) may be used to collect feedback from community members regarding their experiences with the police, which can be incorporated into performance evaluations and personnel files of particular officers.

- Compstat may be used to reinforce COP principles at the departmental level and reinforce accoutability for crime reduction at the operational level.

Develop a Strategy for Managing Change

- Police leadership should promote a long-term commitment to organizational change and seek individual officer support for COP practices during implementation, which may be achieved via training, performance management, targeted recruitment, and clear communication of organizational values in a mission statement.

- Change models can be used to manage officer receptivity to organizational change through tailored coaching, training, and supervision that reflect the current stage of change among officers.

- The maximum benefits of COP may be achieved when COP is implemented throughout an organization as opposed to only in specialized units.

Evaluate Academy and Field Training

- It is important to train officers on COP practices to obtain their support for the approach.

- Academy training must provide tools (e.g., problem-solving/communication strategies) that officers can use to effectively engage in COP as opposed to focusing exclusively on COP philosophy.

- Field training officers play a vital role in the dissemination of values-based policing.

  - Field training officers who are not supportive of the COP approach may interfere with the practice of COP among recruits.

  - Obtaining support for COP among field training officers may be possible through the performance evaluation process.

- Middle managers play a key role in the dissemination of cultural values throughout police organizations, which can influence COP implementation and effectiveness and officer wellbeing across all levels of the organization.

- Police organizations are encouraged to involve middle managers in innovation planning and ensure that middle managers have a good understanding of organizational goals and values.

- Police leadership must recognize and support middle managers for their contributions and ensure that resources, communication, and organizational goals and values are passed down the hierarchy accordingly.

Develop Research Agenda for Community-Oriented Policing and Officer Wellbeing

- Existing literature on the effect of COP on officer wellbeing is outdated, having emerged during a time when COP was a novel approach.

- Researchers are encouraged to re-examine questions in prior studies now that COP is more widely implemented in the U.S. but with a wide degree of variation and commitment across organizations.

- Future research is needed that explores how COP implementation and officer wellbeing may be better integrated to maximize community engagement and officer safety, performance, and retention.

Learning Retention and Training Techniques

Ginzburg, S., & Dar-El, E. M. (2000). Skill retention and relearning - a proposed cyclical model. *Journal of Workplace Learning, 12*(8), 327–332.

Ginzburg and Dar-El examined the relationship between relearning and skill retention during a military refresher training in Israel. The researchers used 53 reservists from the Israel Defense Force, who underwent a training refresher course using a partial simulator. The purpose of their study was to investigate the relearning and skill retention relationship and how the duration between training intervals affect the performance, recollection, and maintenance of complex tasks. Furthermore, two additional facets were examined during this project: the actual differences in the measured decreases in the operator's level of numerous task dimensions and the inference for integrating a simulation in the refresher training. An examination of the project's hypothesis, analysis, and results showed a cyclical behavior model of the retention curve and the relearning aspects (i.e. training intervals). The researchers concluded their experiment's findings were valid for both military and civilian tasks.

The researchers used 53 reservists (age ranging from 22-47) from the Israel Defense Force, who underwent a training refresher course using a partial simulator. The participants were broken up into groups and had their learning processes and skill retention observed in one, two, and three month intervals.

The goal of this study was to examine the relationships between relearning and skill retention involving a complex task by analyzing training intervals. The results of the study showed the longer the training interval was between trainings, the lower the operator performed at accomplishing the complex task. This is especially true when all of the training intervals are compared to each other. The findings from Ginzburg and Dar-El are consistent with previous research results.

The results showed:

- Forgetting occurred faster with procedural skills compared to psychomotor skills.

- Forgetting occurred faster with controlled skills compared to automatic skills.

Additionally, the researchers observed that having a two-month interval between trainings had the same effect as a one-month interval in restoring the operator to their previous skill level; however, the three-month interval did not yield a similar result. The operators who experienced a three-month training interval were not able to bring their skill level back to full restoration after three training sessions. There is a difference between one and two month training intervals compared to three months or longer training intervals. The researchers concluded retraining sessions can be an effective starting point and can help bring the operator back to their previous skill level.

After completing their study, the researchers reaffirmed two points:

- Emphasis needs to be placed on controlled and procedural elements of a task compared to automatic and psychomotor skills. The researchers recommend for written procedures to be integrated into training sessions as this will assist with memorization and how to perform the task in the correct sequential order.

- The use of partial simulator is suitable for both refresher and retraining sessions involving complex tasks; however, the simulator needs to be similar to the task's environment.

Lastly, the researchers were able to give the military unit training recommendations. After examining their results, Ginzburg and Dar-El proposed for the training intervals to be no longer than one and half months. The reached this recommendation by examining their retention curves. At the one and half month mark, the military operators are still on the retention curve and above the minimum acceptable skill level. Additionally, this recommendation would also yield a 33 percent savings in reserve-duty time. Ginzburg and Dar-El suggested for this recommendation to occur for a year before they reassessed the results. The Israel Defense Force adopted and implemented this recommendation for their army unit.

Officer Health

Anshel, M. H. (2000). A conceptual model and implications for coping with stressful events in police work. *Criminal Justice & Behavior, 27*(3), 375-400.

The author indicated that a career in policing is significantly more stressful than many other occupations, and failure to effectively cope with stressful events is associated with many adverse physical and psychological health outcomes. The author reviewed the three postulates of stress and provided an overview of a novel conceptual model for coping with police stress, which consisted of the detection of a stressful event or stimulus; cognitive appraisal or interpretation of the stressor; application of approach or avoidance coping dimensions and behavioral or cognitive coping sub-dimensions; and personal factors that influence the coping process. The author noted that the conceptual model offers police researchers, practitioners, and administrators' additional insight about the coping process and ways to improve job satisfaction, job performance, and health among police officers. Implications for enhanced stress management procedures were also discussed. Notable findings are presented in the following sections.

Stress Postulates:

- There are three postulates involved in the process of perceiving and coping with stress.

- First, extreme or unusual stimuli perceived as a threat will be stressful (i.e., acute stress), and acute stress significantly impacts physiological, psychological, and behavioral responses. Failure to employ adaptive coping strategies may increase stress intensity and negatively affect job satisfaction and mood.

- Second, failure to effectively cope with acute stress may lead to chronic stress and burnout, which inhibits the body's immune system and is associated with reduced mental functioning; impaired decision making; heightened unpleasant emotions (e.g., anxiety, depression); and decreased self-esteem, confidence, and sense of self-control. Failure to employ adaptive coping strategies may lead to decreased job satisfaction and performance, mental withdrawal, and premature retirement.

- Third, sources of stress that are ongoing and long-term may lead to burnout, decreased motivation, poor job performance, and premature retirement among police officers.

Police Stress Coping Model:

- The following conceptual model extends existing theoretical frameworks by providing a coherent structure that includes adaptive and maladaptive cognitive appraisal and coping processes; accounts for the unique coping needs during times of acute stress; and offers a

foundation from which to recommend effective coping tactics as a function of situational and personal characteristics.

Perceived Stress:

- Detection of a stressful event or stimulus is the first stage in the conceptual model.

- Police officers are encouraged to attend to relevant issues and events and filter out meaningless inputs that do not require immediate attention (e.g., crowd noise, unpleasant remark from a bystander).

- The ability to distinguish relevant from irrelevant information is an essential component in preventing and managing police stress.

Cognitive Appraisal:

- Cognitive appraisal (or interpretation) of a stressful event or stimulus is the second stage in the conceptual model.

- Cognitive appraisal significantly affects the perceived intensity (or importance) of a stressor and selection of a coping strategy.

- Perception of stress is based on the interpretation of an event or stimulus as presently or potentially harmful (or as a loss), threatening, or challenging.

- Harm or loss appraisals characterize the degree of damage that has already been sustained and typically occur when a police officer has been hurt (physically or mentally) or lost something that they valued. Harm or loss appraisals are typically followed by immature or passive coping strategies (e.g., fatalism, social comparison, wishful thinking, faith).

- Threat appraisals characterize beliefs of future harm or state anxiety. While threat appraisals are essential for keeping police officers safe in unpredictable or dangerous situations, they are extremely stressful and may lead to chronic anxiety, burnout, fatigue, impaired attention, and poor job performance if not used sparingly.

- Challenge appraisals characterize opportunities to grow as a result of a stressful event or stimulus. Challenge appraisals are typically associated with approach-coping tactics, which are favored by veteran police officers and linked to enhanced levels of alertness, arousal, energy, and confidence.

Coping:

- Use of or failure to use coping strategies to reduce perceived stress is the third stage in the conceptual model.

- The coping process is categorized by approach and avoidance dimensions, with each dimension comprised of behavioral or cognitive sub-dimensions.

- Approach coping strategies characterize efforts to control, understand, or cultivate resourcefulness by behaviorally or cognitively managing sources of stress. Approach coping is preferable under the following conditions: (1) the situation is controllable; (2) the source of stress is identified; (3) the source of stress (person) is open to discussion; (4) the person has sufficient communication skills; (5) there is sufficient time to resolve the issue; (6) an adverse outcome may result if the issue is not addressed; (7) action is required; and (8) the person has a high degree of self-confidence.

- Approach-behavioral coping strategies characterize overt efforts to physically address the source of stress to control the situation and typically occur following extremely stressful and controllable conditions.

- Approach-cognitive coping strategies characterize covert efforts to mentally address perceived stress (e.g., analyzing, planning, rehearsing, imaging, rationalizing, praying).

- Avoidance coping strategies characterize conscious efforts to behaviorally or cognitively avoid sources of stress to maintain focus and manage low-control situations. Avoidance coping is preferable when: (1) the situation is not controllable; (2) emotional resources are limited; (3) information in short-term memory must be diminished; (4) the source of stress is not well-defined; (5) outcomes are short-term; (6) time is not available to absorb new information; and (7) there is a low probability that the issue will be resolved.

- Avoidance-behavioral coping strategies characterize overt efforts to physically remove oneself from the stressful situation and lessen thoughts associated with the event.

- Avoidance-cognitive coping strategies characterize covert efforts to mentally distract, filter, ignore, discount, or distance oneself from sources of stress.

- Avoidance coping can help police officers escape from the adverse side effects of a stressful event or stimulus in the short-term but is not as effective as physically or mentally confronting the source of stress in the long-term.

- It is appropriate for police officers to employ different coping styles based on situational demands. For example, it is a common coping sequence to employ approach-behavioral strategies followed by avoidance-behavioral strategies and then avoidance-cognitive strategies.

Personal Factors that Influence Coping:

- The nature of personal factors can strongly influence susceptibility to stress, cognitive appraisals of stressful events or stimuli, and the degree to which coping with stress leads to chronic stress and burnout.

- Personal factors that are most strongly linked to the coping process in police stress include gender, coping style, self-esteem, confidence, optimism, hardiness, neuroticism, extroversion, and perfectionism.

- Coping style predicts utilization of coping strategies, making it possible to identify stress management interventions that will be most effective for a particular individual based on their coping patterns.

- Personality traits are the primary predictors of utilizing selected coping strategies (and their effectiveness).

- Police officers who possess high self-esteem and confidence jointly are more likely to have the following: (1) more cognitive resources to effectively manage stress; (2) higher expectations of job performance; (3) greater sense of perceived competence and control over their work environment; and (4) greater job satisfaction.

- Optimistic individuals anticipate that things will work out in their favor and feel a sense of control in meeting their expectations. Dispositional optimism (stable world view across situations) better predicts use of effective coping strategies for stressful events or stimuli compared to situational optimism (unstable world view across situations).

- Hardy individuals perceive stressful events or stimuli as challenging and controllable. Hardiness is positively related to self-esteem, optimism, coherence, and health status. Hardiness may influence the relationship between perceived stress and effective coping.

- Neurotic individuals respond to stress poorly; engage in self-blame; and respond to others negatively. Extroverted individuals seek social support, which is identified as an effective coping strategy in police stress and coping literature. Neuroticism and extroversion are more predictive of effective coping with police stress than situational factors wherein stress is experienced.

- Perfectionistic individuals set excessively high expectations and base their self-esteem on meeting those expectations; consequently, they may make overly harsh self-evaluations; have poor self-esteem; and experience anxiety. Neurotic perfectionism may lead to overly stressful and unpleasant responses to errors, problems, and challenges. Neurotic perfectionists may also have poor relationships with others due to the expectation that others must meet their unrealistic standards.

Hobfoll, S. E., & Shirom, A. (1993). Stress and burnout in the workplace: Conservation of resources. In R. T. Golembiewski (Ed.), *Handbook of organizational behavior* (p. 41-60). M. Dekker.

The authors indicated that stress is a critical factor in the workplace. While organizations typically evaluate performance based on inputs and outputs, stress greatly affects this relationship. For example, although challenging work can improve performance, stressful workplace conditions can limit outputs of individuals and organizations. The authors provided an overview of the conservation of resources (COR) theory within the context of workplace stress and burnout. In addition, the authors discussed how COR theory can be applied to predict workplace stress, outcomes of workplace stress, and potential interventions to mitigate stress and burnout. Notable findings are presented in the following sections.

Basic Conservation of Resources Theory

- Individuals possess a basic motivation to obtain, retain, and protect valued resources.

- COR theory outlines four primary types of resources, including objects, conditions (e.g., job stability), personal characteristics (e.g., self-esteem), and energies (e.g., money, favors).

- Individuals experience stress when threatened with resource loss; resources are actually lost; and/or resources are not gained following resource investment.

- The most stressful events are those that are clearly lost (e.g., loss of job, impaired health, death of a loved one, financial loss).

Key Corollaries of Conservation of Resources Theory

- In order for individuals to limit resource loss, protect resources, and/or acquire resources, they must invest resources.

- Individuals who possess more resources are less vulnerable to resource loss and more adept at resource gain, whereas individuals who possess fewer resources are more vulnerable to resource loss and less capable of resource gain.

- Individuals with strong resource pools are more likely to experience cycles of resource gain, of which initial resource gain produces further resource gain. Alternatively, individuals with weak resource pools are more likely to experience cycles of resource loss, of which initial resource loss produces further resource loss.

- Individuals with strong resource pools are more likely to welcome opportunities to risk resource loss in order to obtain resource gain, while others tend to avoid opportunities to limit resource loss (also precluding opportunities for resource gain).

Social Support and Conservation of Resources Theory

- Social support is the method in which resources are expanded outside the domain of resources within the self.

- Social connections are part of one's identity.

- Individuals maintain social support to preserve other resources and protect their identities.

- How individuals utilize social support is a product of their personal resources, also known as hardiness.

- Hardy individuals strongly believe that they have control over their environments; perceive stressful events as challenges; are committed to important tasks; use social support effectively; and benefit more from social support than those who lack hardiness.

- Possessing social resources is frequently tied with having personal resources, and lacking social resources makes the likelihood of lacking personal resources greater.

The Nature of Stress at Work

- Organizational stress is frequently characterized by chronic or repeated episodic stress.

- Chronic stress is defined as threat or loss conditions that persist over a long period of time.

- Chronic stress significantly and continuously drains the resource pool, leaving individuals with dwindling resources to manage the chronic stressor.

- Chronic stress situations invalidate resources that should be valued by the "system" but are not (e.g., assertiveness, competence, social skills). Likewise, resources can be invalidated when individuals perceive that their resources are no longer valuable (e.g., stress persists despite attempts at utilizing multiple resources).

- Repeated episodic stress is defined as different stressors (e.g., reoccurring or idiosyncratic) that occur at various times.

- The term episodic stress suggests that there is a relaxation period between stressors, allowing for the regrouping of resources and analysis of things that did and did not work well.

- Possessing a strong resource pool (e.g., social support, competence, sense of mastery, self-esteem) can help individuals successfully manage stressful situations.

Burnout in Organizations: A Conservation of Resources Theory Perspective

- Burnout is defined as a condition that develops over time and is characterized by physical fatigue, emotional exhaustion, and cognitive wear-out.

- Advanced stages of burnout are often characterized by hopelessness, helplessness, and depression.

- Burnout occurs when individuals experience loss of valuable personal resources (physical vigorousness, emotional robustness, and cognitive agility) in response to external demands (stressors). Typically, the resource loss cannot be compensated for by expanding or borrowing other resources to replace the loss.

The Medical vs. Organizational Behavior Models of Burnout

- In organizational behavior literature, burnout carries a minimal stigmatizing burden compared to depression or anxiety. When applied to an individual employee, burnout is not limited to merely personal vulnerabilities; it encompasses the job, organization, family context, and others.

- Medical practitioners and researchers have studied the extreme form of burnout, a disease state characterized by maladaptive behavior and/or psychiatric disturbance. Early references to this disease state were frequently associated with the symptomatic categories of asthenia, lassitude, lethargy, or listlessness; however, the most widely accepted term is chronic fatigue syndrome.

- There are qualitative differences between burnout and chronic fatigue syndrome.

Construct Validity of Burnout

- The construct validity of burnout and the two most well-known burnout scales (Maslach Burnout Inventory and Burnout Inventory) have been criticized by burnout researchers.

- The instruments confound stress and its effects of strain; are susceptible to attribution error; do not recognize situation-specific characteristics of burnout; ignore social arrangements that precede burnout; and do not differentiate burnout from depressive symptoms.

- While the three burnout components (physical fatigue, emotional exhaustion, and cognitive wear-out) frequently occur in combinations, one is not consistently related to the other.

- Each component is associated with a different coping style. Emotional exhaustion is highly correlated with problem-focused coping, while physical fatigue is related to emotion-focused coping; however, no research studies have examined the relationships among all three burnout components, stress, and coping styles.

- Burnout researchers are encouraged to construct valid measures using all three components of burnout (physical fatigue, emotional exhaustion, and cognitive wear-out).

Burnout and Individual Characteristics

- Individuals who possess limited resources are more likely to experience cycles of resource loss, which may lead to progressive burnout if those resources are not replenished.

- Self-efficacy is a personal character resource that plays a key role in the etiology of burnout.

- Higher levels of burnout are expected in organizational settings with limited opportunities (e.g., excessive workload, lack of supervisor support) for employees to experience success and feel efficacious in their work roles, whereas lower levels of burnout are predicted when employees are offered opportunities to experience challenge, autonomy, control, feedback of results, and support from colleagues.

- Social support is an important resource in predicting burnout among individuals.

- Social support promotes positive evaluation of one's efforts, thereby enhancing self-efficacy.

- Reassurance of self-efficacy and supervisor support in various organizational settings consistently predicted lower levels of burnout among educators, nurses, and therapists.

- Specific personality characteristics (e.g., neuroticism) may lead to higher levels of burnout among individuals despite the situation, whereas burnout may exacerbate certain personality characteristics.

Burnout and Ill Health of Individuals

- There is evidence supporting the potential etiological role of burnout for chronic fatigue syndrome.

- Individuals who score high on burnout measures should be evaluated for potential development of chronic fatigue syndrome.

- Chronic fatigue syndrome may be the product of earlier burnout or the result of limited access to personal energy resources that guard against stress and its adverse health effects.

- There is evidence supporting the potential etiological role of burnout for cardiovascular disease.

- Feeling tired or exhausted at the beginning or end of the day were precursors of cardiovascular heart disease.

- Feelings of fatigue and general malaise were significantly associated with myocardial infarction and angina pectoris.

- High scores on burnout measures were significantly correlated with high levels of cholesterol, triglycerides, and glucose and low levels of diastolic blood pressure.

Burnout and Organizational Health

- Organizations may experience burnout in response to continuous depletion of organizational resources.

- Organizational burnout may be self-imposed (e.g., unrealistic workloads that eventually negatively influences employee motivation, attitudes, and behavior) or externally imposed by stakeholder demands that consistently exhaust organizational resources.

Houdmont, J. (2017). Stressors in police work and their consequences. In R. J. Burke (Ed.), *Stress in policing: Sources, consequences, and interventions* (p. 51-65). Routledge.

Policing is frequently regarded as a highly stressful profession. Studies have emerged in recent years demonstrating dynamic relations between police work characteristics and officer health, wellbeing, and job effectiveness, which have informed interventions, policies, and procedures for reducing police stress in law enforcement agencies. The author provided an overview of contemporary research on the sources and consequences of police stress and thus, offering an evidence-based platform for addressing police stress. The author's review focused primarily on police literature published in 2010 and beyond. Notable findings are presented in the following sections.

Organizational and Operational Stressors

- Studies have repeatedly demonstrated that organizational factors in policing are more stressful than operational factors and are more strongly associated with negative outcomes.

- Administrative practices, lack of organizational support, and unfair treatment at work were more strongly correlated with stress than were dangerous situations (e.g., critical incidents).

- Findings in U.S. police studies on organizational versus operational factors and stress are consistent with those reported in other countries, including Canada, India, and Italy.

Taxonomies of Police Stressors

- Police stressor taxonomies have been developed by researchers to identify commonly experienced stressors in policing, some of which have been converted into instruments.

- Stress exposure instruments may assist occupational health and human resource practitioners to efficiently assess stressor exposures among police officers; determine which stressors are most strongly associated with adverse outcomes; and offer appropriate support and intervention services that are designed to reduce or eliminate stressor exposures.

- Examples of stress exposure instruments include the Police Stressors and Felt Stress Inventory, Situational Stress Inventory, Police Stress Survey, Police Daily Hassles Scale, Police Stress Scale, Police Stress Questionnaire, Operational and Organizational Police Stress Questionnaire, Law Enforcement Officer Stress Survey, Work Environment Index, Confidential Police Survey, and Work and Wellbeing Assessment for Police.

Stressor Exposure and Psychological Distress

- Psychological distress has been studied extensively in contemporary occupational health and police stress research in a variety of countries, including Australia, Canada, Finland, Italy, Pakistan, Sweden, U.K., and U.S.

- Psychological distress is characterized by symptoms of anxiety, depression, irritability, declining intellectual capacity, and tiredness and is commonly measured using the 12-item version of the General Health Questionnaire.

- Psychological distress has been correlated with various organizational stressor exposures, such as negative workplace treatment from colleagues.

- The prevalence of psychological distress appears to vary considerably across national boundaries.

- Findings reported in the U.K. indicate that psychological distress among police officers is particularly acute. Additional research is needed to determine if the situation in the U.K. is a broader international representation of psychological distress among police officers.

- Interventions focused on reducing or eliminating stressor exposures are necessary for lessening psychological distress among police officers.

Stressor Exposure and Burnout

- Similar to psychological distress, burnout has been studied extensively in contemporary police stress research in a variety of countries, including Australia, Canada, Finland, Italy, Poland, Turkey, U.K., and U.S.

- Burnout is frequently measured using the Maslach Burnout Inventory.

- Burnout is a psychological syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment that occurs among individuals who work with other people in some capacity.

- Burnout is a significant correlate of psychosocial hazards in police stress literature, such as job demand, lack of supervisor and colleague support, workload, and understaffing among others.

- Burnout is frequently regarded as an outcome of prolonged exposure to police stress.

- In non-police samples, occupational burnout is commonly associated with decreased executive functioning, attention, and memory.

- Studies have demonstrated that burnout is correlated with physical aggression, anger, and use of force among police officers.

- The prevalence rate of burnout among police officers is considerably higher than that found in normative samples.

- Findings reported in the U.K. indicate that burnout among police officers is particularly acute.

- Interventions focused on reducing or eliminating stressor exposures may aid in protecting psychological health and promoting operational effectiveness among police officers.

Limitations of the Knowledge Base

- While contemporary literature on police work characteristics and officer outcomes have a number of strengths, including an extensive evidence base that is largely consistent in terms of magnitude and direction of findings and inclusion of large and representative samples, the majority of knowledge were generated using a cross-sectional research design.

- Cross-sectional research designs are limited in that they cannot establish patterns of causation or stability of relationships between variables over time, making it challenging for decision-makers within law enforcement to develop solutions in response to study findings.

- Longitudinal research designs can establish patterns of causation or stability of relationship between variables, as they measure variables at two or more points over an extended period of time.

- It can be challenging to obtain approval for longitudinal research designs in law enforcement settings, as they are costlier and require a long-term commitment from the host organization.

- Longitudinal research designs can be difficult to implement due to officer mobility within an organization (e.g., frequent shift rotations, role or unit changes).

- It can be challenging to track a cohort of officers at multiple points in time if they opt out of providing essential information (e.g., unique identifier) that link different waves of survey data.

Addressing the Problem

- Primary (or organizational-level) interventions attempt to lessen the frequency or intensity of stressor exposure originating from organizational sources.

- While primary interventions are challenging to implement in complex law enforcement settings, evidence suggests that they can be effective.

- A leadership development intervention implemented in an Australian law enforcement agency consisted of three components: (1) a review process involving intervention participants, their immediate supervisors, and their direct subordinates; (2) a series of workshops that offered training to participants on leadership styles and behaviors and provided practical resources to enhance their leadership skills; and (3) individual coaching for participants. Following the intervention, subordinates of intervention participants reported significantly higher levels of work-culture support, strategic alignment, work engagement, and job satisfaction at a seven-month follow-up.

- While secondary (or individual-level) interventions may be less effective than primary interventions at lowering stress among police officers, they may be more practical to implement in complex law enforcement settings.

- An example of a secondary intervention may include training officers on effective coping strategies to reduce police stress.

- Stress management is most effective when informed by a comprehensive approach that incorporates interventions at all three levels (primary, secondary, and tertiary).

McCraty, R., & Zayas, M. A. (2014). Cardiac coherence, self-regulation, autonomic stability, and psychosocial well-being. *Frontiers in Psychology, 5*(1090), p. 1-13.

The authors provided an overview of the psychophysiological coherence model and implications for enhancing mental and emotional health and self-regulation. Studies were discussed that examined the coherence-based approach to enhancing self-regulatory capacity, physical health, cognitive function, and psychosocial wellbeing. The authors applied the approach to the mechanisms underlying trauma and noted the importance of shifting the internal baseline reference, which

represents a type of implicit memory in the neural architecture that organizes perception, feeling, and behavior. The continuum of functions associated with mental and emotional self-regulation was also discussed, in addition to methods for shifting autonomic nervous system (ANS) activation to one that is more balanced and coherent. Notable findings are presented in the following sections.

Psychophysiological Coherence and Well-Being

- The psychophysiological coherence model focuses on specific methods to enhance self-regulatory capacity and increase heart rate variability (HRV) coherence.

- Many of the practices require focused attention on the center of the chest and then self-activation of positive emotions.

- Use of self-regulation techniques typically transforms one's physiology into a more coherent state, which is reflected in patterns of the heart's rhythm.

- Regular practice of self-regulation techniques promotes balance; connectedness; and physical, emotional, and psychosocial wellbeing.

- Outcome studies conducted with diverse populations in laboratory, clinical, educational, and organizational settings showed improvements in various dimensions of health, wellbeing, and performance after use of self-regulation techniques.

- There is evidence that increased coherence is associated with significant improvements in self-regulatory capability and cognitive functioning and significant reductions in pain, stress perception, negative emotions, and physical activity limitations among military personnel.

- Outcome studies conducted with police officers showed significant improvements in self-regulatory capability, family relations, communication, and work cooperation and significant reductions in stress, negative emotions, and depression.

Trauma

- Trauma is characterized by a disturbance in the physiological factors underlying cognitive, behavioral, and social function and ability to appropriately respond to perceived threats.

- Trauma is associated with emotional dysregulation due to repetitive activation by internal or external cues associated with the traumatic event and corresponding inability to return to a homeostatic state.

- During a traumatic episode, the frontal cortex becomes hypoactive and the limbic system, particularly the amygdala, becomes hyperactive.

- Individuals who are unable to establish a new internal baseline reference following a traumatic experience are at risk of getting trapped in familiar and unhealthy emotional and behavioral patterns and navigating their lives through automatic filters of prior familiar or traumatic experiences.

- Cardiac function also plays a role in the physiological understanding of trauma, particularly in terms of HRV.

Emotions and Heart Rhythm Patterns

- Emotions are associated with patterns reflected in HRV waveforms.

- Positive emotions (e.g., appreciation) are characterized by more coherent heart rhythm patterns, indicating that they have a renewing physiological effect.

- Negative emotions (e.g., anger) are characterized by more incoherent heart rhythm patterns, indicating that they have a depleting physiological effect.

- Changes in heart rhythm patterns are independent of heart rate. For example, individuals may have a coherent or incoherent heart rhythm pattern at higher or lower heart rates.

- Heart rhythm pattern (versus heart rate) characterizes the ANS and emotional dynamics, in addition to physiological synchronization.

Heart-Brain Communication

- Coherent flow of information within and between systems and processes in the central nervous system (CNS), ANS, and body contributes to the quality of emotions experienced.

- HRV analysis is an effective method for examining the activity between the heart and brain.

- Low HRV is related to increased risk of various clinical conditions and all-cause mortality, whereas high HRV is an indicator of psychological resiliency, behavioral flexibility, and adaptability.

Cardiovascular Afferent Neurons

- Cardiovascular afferent neural traffic drastically influences activity in most higher brain centers, cognitive processes, and emotional experience.

- Complex afferent information is constantly relayed to the brain and is associated with mechanical and chemical factors over time.

- The heart rhythm coherence hypothesis proposes that the pattern and extent of stability in heart rate changes encodes information over macroscopic time scales, thereby affecting cognitive performance and emotional experience.

Vagal Afferent Nerve Traffic

- Sensory neurons are activated by increases in rate of change in functions such as blood pressure and heart rate.

- Sensory neurons detect increased range of variability in both blood pressure and heart rate during periods of increased cardiac coherence, which results in increased firing rates and subsequent vagal afferent traffic.

- Studies have demonstrated that vagal nerve stimulation is associated with improvements in cognitive processing and memory and reductions in migraine and cluster headaches.

- Vagal nerve stimulation has been used to treat various clinical disorders, including epilepsy, traumatic brain injury, multiple sclerosis, mood disorders, alcohol addiction, and obesity.

Establishing a New Baseline

- Individuals develop physiological and behavioral "set points" or default patterns in their neural architecture that function as a form of implicit memory or internal baseline reference when they encounter new experiences or challenges.

- Internal and external sensory inputs to the brain are compared to default patterns, and if there is match, the brain recognizes the inputs as familiar and facilitates feelings of safety and comfort.

- Inputs that do not match default patterns require either an internal adjustment (self-regulation) or external behavioral action to reinstate a match.

- When a mismatch is detected, the brain produces a change in activity in the CNS and ANS and creates an emotion to alert the individual of the mismatch.

- The brain responds to fleeting stimuli with arousal or updates the memories that serve as the internal baseline reference for recurring stimuli (habituation).

- Appraisal processes exist in the brain that determine the degree of consistency between current events and projected future outcomes.

- Future outcomes may be appraised as optimistic (projected ability to deal with a situation) or pessimistic (projected inability to deal with a situation).

- Appraisals may or may not be accurate.

- Inaccurate appraisals may occur due to hypersensitivity to current cues that resemble prior traumatic experiences, impairment in the neural systems, or poor skill acquisition to effectively manage projected future outcomes.

- Familiarity of a sensory input is sufficient to produce a pessimistic response despite an inaccurate appraisal, suggesting that individuals can get trapped in familiar and unhealthy emotional and behavioral patterns.

- It is important to employ strategies that help establish a new internal baseline reference if behavior change or improved affective states are desired so that assessments of inputs are more accurate and facilitate feelings of safety and comfort as opposed to threat and anxiety.

Self-Regulation and Stability

- Higher brain centers that monitor the input-default pattern matching process can self-regulate by inhibiting certain information flowing into the brain (e.g., tuning out noisy conversations of other patrons while dining out).

- When individuals achieve control via self-regulation, they may experience feelings of satisfaction, while failure to effectively self-regulate and achieve control may result in feelings of frustration, impatience, anxiety, or depression.

- How individuals respond to internal and external demands and situations largely depends on the synchronization, sensitivity, and stability of their physiological systems.

- While afferent neural inputs originate from various organs and muscles, the heart and cardiovascular system contain the most and serve as the main source of continuous dynamic heart rhythms.

- Consistent dynamic changes in afferent activity patterns associated with chemical information is relayed to the brain and other bodily systems.

- Emotional experience and the establishment of default patterns are largely determined by afferent neural inputs from the cardiovascular system to the amygdala.

- Use of heart-focused self-regulation techniques can alter patterns of heart rhythm and afferent neurological signals to more ordered and stable patterns; these techniques involve shifting attention to the center of the chest coupled with self-activation of a positive emotion.

- Heart-focused self-regulation techniques strengthen the association (pattern match) between a more coherent heart rhythm and positive emotion, subsequently increasing cardiac coherence.

- Regular practice of heart-focused self-regulation techniques facilitates the re-patterning process, in which self-regulatory capacity is enhanced and new internal baseline reference patterns are established.

Social Coherence

- Social coherence is characterized by the harmonious quality of social networks shared by individuals.

- Social coherence is grounded in the ability of group members to be attuned to the group and regulated based on mutually agreed upon norms.

- Individuals develop social set points or default patterns in their neural architecture based on social interactions in their primary environments.

- Social set points that reflect a pattern of harmony and support promote optimal social functioning and subsequent feelings of safety and comfort.

- Individuals may experience incoherent feelings towards others at times that disrupt social interactions through miscommunication or other destructive social dynamics.

- Social incoherence is associated with increased risk of isolation and disease.

- A pattern of alienation following a traumatic event can become habituated, such that social proximity is experienced as a mismatch with the existing internal baseline reference.

- Re-establishing connectedness is a crucial component that allows for reintegration.

Trauma and Self-Regulation

- Use of simple strategies to enhance self-regulatory capacity may promote a sense of wholeness and harmony in personal experiences and connectedness with others.

- Emotional regulation, attention to wellness, and stress management are critical elements for establishing a foundation of care.

Self-Regulation Techniques that Increase Cardiac Coherence

- Self-awareness and recognition of triggers, reactions, and emotional undercurrents (e.g., fear, worry) is required before establishing a new internal baseline reference.

- Understanding how to consciously self-regulate and replace negative emotional undercurrents with more positive attitudes and perceptions is also necessary before establishing a new internal baseline reference.

- Many techniques and technologies exist to help individuals self-regulate their thoughts, emotions, and behaviors and enhance physiological coherence.

- Skill acquisition of techniques (e.g., Freeze Frame, Heart Lock-In, Coherent Communication) are frequently supported by heart rhythm coherence feedback technology.

- Heart-focused breathing is typically the first step in most of the techniques and involves shifting attention to the center of the chest and visualizing the breath flowing in and out coupled with slow, deep breaths.

- Conscious self-regulation of respiration increases cardiac coherence.

- Self-activation of positive emotions can also increase cardiac coherence without consciously changing the breathing rhythm.

- Other approaches that increase HRV coherence include meditation, prayer, and progressive muscle relaxation.

Heart Rate Variability Coherence Feedback

- HRV coherence training is frequently used to promote self-regulation skill acquisition in clinical, educational, organizational, and government settings.

- Many systems are available that assess the level of coherence in heart rhythm patterns among users, such as emWavePro, Inner Balance, Relaxing Rhythms, and Stress Resilience Training System.

- Most of the systems use noninvasive sensors to collect user data, display heart rhythm patterns, and offer feedback on the degree of coherence.

Use of Force

Gallo, F. J., Collyer, C. E., & Gallagher, P. L. (2008). Prevalence of Force by Police in Rhode Island Jurisdictions. *Criminal Justice Review, 33*(4), 480-501.

The authors surveyed 16 Rhode Island law enforcement agencies, which served rural, suburban, and urban communities. The researchers examined the prevalence and severity of police use of force by reviewing 3,300 adult arrests from the participating law enforcement agencies. The researchers took an interest in the state of Rhode Island after a firearm accident, which occurred in January 2000, led to community stakeholders criticizing the state's law enforcement agencies for their lack of use of force summary reports. The software the state of Rhode Island used did not allow for police agencies to generate such reports; however, the summary reports could be obtained by having individuals review reports, record, and tabulate the information. The results of the study revealed

law enforcement personnel in Rhode Island rarely used levels of force above restraints during arrests. Additionally, the Rhode Island officers also used a lower level of physical force compared to a previously surveyed law enforcement jurisdiction.

Gallo and colleagues began with their study by examining previous research to establish a reference point to compare against the collected Rhode Island law enforcement use of force data. By utilizing existing literature, the researchers identified five sampling techniques: field observations, multiagency surveys, public surveys, police arrest reports, and use of force report forms.

During their study, the researchers recognized there was need for law enforcement agencies to purchase and maintain record keeping software or software packages. These types of programs would allow for police agencies to quickly summarize use of force reports by and against officers, identify training needs, and provide statistical information. If the law enforcement agency is unable to purchase or maintain a record keeping software system, Gallo and colleagues recommended for police agencies to create a separate standardize use of force report form. To assist agencies in creating their own standardize use of force report form, the authors provided a copy in the appendix of their study.

Additionally, the research by Gallo et al. showed that Rhode Island officers reporting using a lower percentage of use of force against resisting suspects compared to previously surveyed jurisdictions. The researchers have recommended for follow-up studies about why this may have occurred.

Gallo and colleagues have also advocated for future studies to consider the implications of research, reporting, and training in the criminal justice sphere. In the research area, they encourage future studies to examine: 1) how much force and resistance, types of force and resistance are used by law enforcement and suspects in non-arrest settings; 2) to investigate how law enforcement and suspects move up and down a force/resistance continua, how many categories are necessary for creating force/resistance continua, and how to operationally define categories involving new weapons; and 3) studying bias in officers' self-report arrest reports and to compare them against independent observer reports. In the reporting area, they recommend for future studies to examine to have method of collecting use of force summary reports used by the officer and/or by the suspect. This type of information would allow for a jurisdiction to capture descriptive statistics which could be later used for tracking officers' training needs, addressing community and stakeholder concerns, and provides transparency. In the training area, the researchers urged law enforcement agencies to offer frequent use of force trainings, critical thinking skills, and how to appropriate use their issued equipment.

The past five years, particularly 2020, have been a volatile and socially challenging time in American history. Law enforcement agencies and police officers have been confronted with issues of racial bias, abuse of authority, excessive use of force, and misconduct; lawsuits; and demands for law enforcement reform among communities and activist groups, all of which have impacted police-community relations and the relationships between individual officers and their agencies (Faltas, 2018; Goerling, 2012; Kozial, 2020). Emotional intelligence (EQ) plays a key role in almost every facet of the policing profession and can be used to predict the future success rate and performance of individual officers and law enforcement agencies (Egger, 2014; Faltas, 2018; Hudson, 2016; Taylor-Clark, 2015). At the officer-level, research studies demonstrate that higher EQ is associated with improvement in the following domains:

Job Outcomes

- Job Satisfaction (Faltas, 2018; Hull, 2021)
- Employee Engagement (Hull, 2021)
- Effective Communication with Agency (Hull, 2021)
- Job Performance/Efficacy (Egger, 2014; Faltas, 2018; Hull, 2021)
- Ethical Behavior (Faltas, 2018)
- Reduced Injury/Death among Officers/Citizens (Bouchard, 2019)
- Organizational Commitment (Faltas, 2018)
- Turnover Intention (Faltas, 2018; Hull, 2021)

Individual Outcomes

- Perceived Wellbeing (Hull, 2021)
- Resilience (Faltas, 2018)
- Integrity (Faltas, 2018)
- Problem-Solving (Egger, 2014; Faltas, 2018)
- Decision-Making (Faltas, 2018)
- Self-Awareness (Olawoyin, 2018)
- Emotion Management (Egger, 2014; Hull, 2021)
- Stress Management (Bouchard, 2019; Egger, 2014; Faltas, 2018)

Relationship Outcomes

- Effective Communication with Communities (Hull, 2021)
- Building Public Trust (Faltas, 2018)
- Strong Relationships in Workplace/with External Communities (Faltas, 2018; Olawoyin, 2018)

At the organizational-level, research studies demonstrate that higher EQ is associated with improvement in the following domains:

- Innovation (Faltas, 2018)

- Development (Faltas, 2018)
- Policymaking (Faltas, 2018)
- Recruitment (Faltas, 2018)
- Retention (Faltas, 2018)
- Leadership Effectiveness (Bouchard, 2019)
- Effective Communication with Employees (Bouchard, 2019)
- Team Talent (Faltas, 2018)
- Teamwork (Faltas, 2018)
- Employee Morale (Faltas, 2018)
- Productivity (Faltas, 2018)
- Organizational Excellence (Faltas, 2018)

While the above research findings highlight the importance of EQ in successful law enforcement functioning and performance, agencies tend to place greater emphasis on technical skills training, with very little resources (if any) invested in training beyond these skills that heavily influence individual and community behaviors, such as EQ (Goerling, 2012). The research evidence suggests that EQ frameworks can be used to inform future strategies to help law enforcement agencies respond to increasing demands; adjust to challenging situations; enhance wellbeing and safety; bolster problem-solving, decision-making, and communication skills; improve performance and operations; and build trust and cooperation within communities. In this regard, law enforcement agencies are strongly encouraged to incorporate EQ into their training curriculum.

The following sections outline the approach and key findings of the literature review.

II. APPROACH

The following sections describe a series of phases through which the literature review was conducted, including (1) search parameters, (2) tracking system development, (3) source identification, and (4) source analysis (See Figure 1).

Phase 1: Search Parameters

A total of 17 search terms were selected to inform the literature review, most of which included a combination of EQ-related phrases and Boolean search commands ("and" / "or") to yield more precise results (See Table 1). Search terms were selected to narrow the focus of the report to police officers, correctional officers, and other first responders (e.g., firefighters, EMTs); however, two broader search terms were intentionally selected to understand how EQ is conceptualized and has informed trainings/interventions in other fields, like business, health care, and education. Google Scholar (Advanced Search) was selected as the search engine for the literature review based on the author's success in using this search engine to obtain open access articles in prior police-related literature reviews.

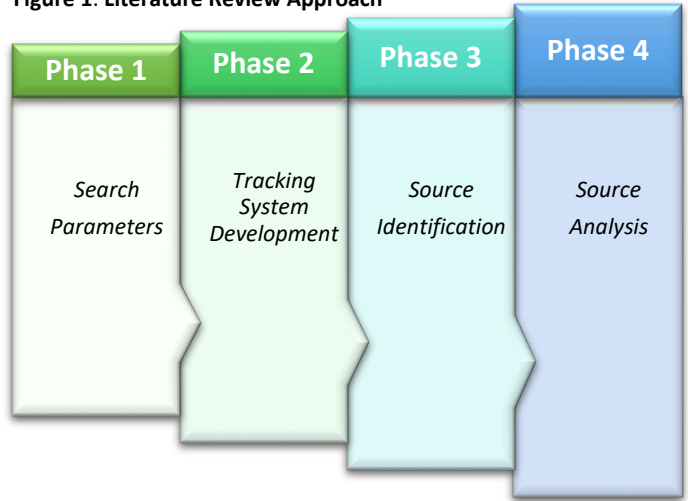**Figure 1**. Literature Review Approach

Phase 1	Phase 2	Phase 3	Phase 4
Search Parameters	Tracking System Development	Source Identification	Source Analysis

Table 1. Search Parameters

Search Terms	
1. *Emotional Intelligence* **AND** *Police* **OR** *Law Enforcement*	10. *Emotional Intelligence Instrument* **AND** *First Responders*
2. *Emotional Intelligence* **AND** *Corrections* **OR** *Correctional*	11. *Emotional Intelligence Measure* **AND** *Police* **OR** *Law Enforcement*
3. *Emotional Intelligence* **AND** *First Responders*	12. *Emotional Intelligence Measure* **AND** *Corrections* **OR** *Correctional*
4. *Emotional Intelligence* **AND** *Scale* **OR** *Instrument*	13. *Emotional Intelligence Measure* **AND** *First Responders*
5. *Emotional Intelligence Scale* **AND** *Police* **OR** *Law Enforcement*	14. *Emotional Intelligence Training*
6. *Emotional Intelligence Scale* **AND** *Corrections* **OR** *Correctional*	15. *Emotional Intelligence Training* **AND** *Police* **OR** *Law Enforcement*
7. *Emotional Intelligence Scale* **AND** *First Responders*	16. *Emotional Intelligence Training* **AND** *Corrections* **OR** *Correctional*
8. *Emotional Intelligence Instrument* **AND** *Police* **OR** *Law Enforcement*	17. *Emotional Intelligence Training* **AND** *First Responders*
9. *Emotional Intelligence Instrument* **AND** *Corrections* **OR** *Correctional*	

Phase 2: Tracking System Development

Once the search parameters were established, a tracking system was developed to ensure the literature review was conducted in a standardized and systematic manner. The tracking system was created using Microsoft Excel and consisted of three tabs to guide the process. Tab 1 was comprised

of six columns in the following order: Search Term, Search Status (blank cell = search incomplete, "X" = search complete), Number of Saved Sources, Entered in Source Table (blank cell = source not entered, "X" = source entered), Number of Kept Sources, and Number of Discarded Sources. The bottom of Tab 1 automatically calculated the total number of saved, kept, and discarded sources. Tab 2 was comprised of nine columns in the following order: Search Term/Folder Name (file folder named after each search term), Source Type, Author(s), Year, Title, Key Words, Abstract, Keep or Discard Source, and Rational for Discarding Source. Tab 3 included a breakdown of the total number of kept sources for each search term by source type (e.g., journal article, dissertation, book chapter).

Phase 3: Source Identification

Each search term was inputted into the Google Scholar (Advanced Search) search bar. All available source titles and abstracts yielded from each search were briefly scanned for relevancy. Sources were deemed relevant based on the search parameters described in Phase 1. It is important to note that Google Scholar (Advanced Search) capped the search results to 1,000 for each search term; however, the default sorting option (PageRank algorithm) included only the most relevant results. Relevant sources were downloaded and saved to their respective file folders (one for each search term). After all searches were complete, the number of saved sources in each file folder was tallied and recorded in the Total Number of Saved Sources column, and an "X" was entered in the Search Status column next to the corresponding search term in Tab 1 of the tracking file. Next, notes (e.g., source type, author(s), title, abstract) were recorded for each saved source in Tab 2 of the tracking file, and an "X" was entered in the Entered in Source Table column next to the corresponding search term in Tab 1 of the tracking file after all saved sources were recorded.

Phase 4: Source Analysis

All saved sources recorded in Tab 2 of the tracking file were carefully examined to determine if they were still applicable to the search parameters after a more comprehensive review. During the review process, excel rows containing duplicate sources, sources older than 10 years, sources with non-U.S. study samples, and sources with limited discussion of EQ or extraneous information were "hidden" (but not deleted), such that only those deemed most relevant were viewable in the tracking file. All viewable sources were then assigned to one or more of the following report sections: History of Emotional Intelligence, Emotional Intelligence Models, Measuring Emotional Intelligence, and/or Emotional Intelligence Trainings/Interventions, such that source information could be synthesized for those sections. The number of viewable sources and source types (e.g., journal article, dissertation, book chapter) for each search term was tallied and recorded in Tab 3 of the tracking file.

III. FINDINGS

Search Results

The author identified 395 sources as potentially relevant based on the search parameters. Results were narrowed to 36 sources after a second, more comprehensive review of each source. The search terms *Emotional Intelligence* **AND** *Police* **OR** *Law Enforcement* (*n* = 10), *Emotional Intelligence* **AND** *Scale* **OR** *Instrument* (*n* = 8), and *Emotional Intelligence Training* (*n* = 6) yielded the most sources that were selected for inclusion in the report (See Table 2).

Selected source types were predominately journal articles (*n* = 23), followed by dissertations (*n* = 6). Theses, seminar research papers, conference papers, research papers, faculty books, and book chapters accounted for less than 20% of all source types (See Table 3).

Table 2. Search Results

Search Term	Saved Sources	Selected Sources
Emotional Intelligence **AND** *Police* **OR** *Law Enforcement*	47	10
Emotional Intelligence **AND** *Corrections* **OR** *Correctional*	11	2
Emotional Intelligence **AND** *First Responders*	9	2
Emotional Intelligence **AND** *Scale* **OR** *Instrument*	136	8
Emotional Intelligence Scale **AND** *Police* **OR** *Law Enforcement*	39	1
Emotional Intelligence Scale **AND** *Corrections* **OR** *Correctional*	10	1
Emotional Intelligence Scale **AND** *First Responders*	8	1
Emotional Intelligence Instrument **AND** *Police* **OR** *Law Enforcement*	4	0
Emotional Intelligence Instrument **AND** *Corrections* **OR** *Correctional*	2	0
Emotional Intelligence Instrument **AND** *First Responders*	0	0
Emotional Intelligence Measure **AND** *Police* **OR** *Law Enforcement*	14	1
Emotional Intelligence Measure **AND** *Corrections* **OR** *Correctional*	8	1
Emotional Intelligence Measure **AND** *First Responders*	0	0
Emotional Intelligence Training	64	6
Emotional Intelligence Training **AND** *Police* **OR** *Law Enforcement*	28	2
Emotional Intelligence Training **AND** *Corrections* **OR** *Correctional*	12	1

Emotional Intelligence Training **AND** *First Responders*	3	0
TOTAL =	**395**	**36**

Table 3. Selected Source Types

Search Term	Journal Article	Dissertation	Thesis	Seminar Research Paper	Conference Paper	Research Paper	Faculty Book	Book Chapter	TOTAL =
Emotional Intelligence **AND** *Police* **OR** *Law Enforcement*	4	2	0	2	0	1	1	0	**10**
Emotional Intelligence **AND** *Corrections* **OR** *Correctional*	0	2	0	0	0	0	0	0	**2**
Emotional Intelligence **AND** *First Responders*	1	0	0	0	1	0	0	0	**2**
Emotional Intelligence **AND** *Scale* **OR** *Instrument*	7	0	0	0	0	0	0	1	**8**
Emotional Intelligence Scale **AND** *Police* **OR** *Law Enforcement*	1	0	0	0	0	0	0	0	**1**
Emotional Intelligence Scale **AND** *Corrections* **OR** *Correctional*	1	0	0	0	0	0	0	0	**1**
Emotional Intelligence Scale **AND** *First Responders*	0	1	0	0	0	0	0	0	**1**
Emotional Intelligence Instrument **AND** *Police* **OR** *Law Enforcement*	0	0	0	0	0	0	0	0	**0**
Emotional Intelligence Instrument **AND** *Corrections* **OR** *Correctional*	0	0	0	0	0	0	0	0	**0**
Emotional Intelligence Instrument **AND** *First Responders*	0	0	0	0	0	0	0	0	**0**
Emotional Intelligence Measure **AND** *Police* **OR** *Law Enforcement*	1	0	0	0	0	0	0	0	**1**
Emotional Intelligence Measure **AND** *Corrections* **OR** *Correctional*	1	0	0	0	0	0	0	0	**1**
Emotional Intelligence Measure **AND** *First Responders*	0	0	0	0	0	0	0	0	**0**
Emotional Intelligence Training	6	0	0	0	0	0	0	0	**6**

Emotional Intelligence Training **AND** *Police* **OR** *Law Enforcement*	0	1	1	0	0	0	0	0	**2**
Emotional Intelligence Training **AND** *Corrections* **OR** *Correctional*	1	0	0	0	0	0	0	0	**1**
Emotional Intelligence Training **AND** *First Responders*	0	0	0	0	0	0	0	0	**0**
TOTAL =	**23**	**6**	**1**	**2**	**1**	**1**	**1**	**1**	**36**

History of Emotional Intelligence

The foundational roots of EQ date back to the early 20th century and Thorndike's research on social intelligence (Bouchard, 2019; Crosby, 2017). Thorndike identified socially competent behaviors that predicted leadership effectiveness, paving the way for other scholars to explore non-cognitive factors of intelligence. From the 1950s to 1970s, research on multiple intelligence theory emerged, with many scholars beginning to explore multiple intelligences within the context of interpersonal and intrapersonal awareness (Bouchard, 2019). In 1983, Gardner proposed that the combination of interpersonal and intrapersonal awareness formed personal intelligence, defined as the ability to understand information about the self and others (Bouchard, 2019; Crosby, 2017).

While the term *emotional intelligence* was introduced in Payne's doctoral dissertation in 1985, it was not well-known in academia until Salovey and Mayer's research was published in the *Journal of Imagination, Cognition, and Personality* in 1990 (Bouchard, 2019; Crosby, 2017). In 1995, Goleman's best-selling book (*Emotional Intelligence: Why It Can Matter More than IQ)* popularized the concept of EQ, which led to the development of a robust foundation for the exploration of how non-cognitive abilities impact individuals in varying contexts (e.g., populations, settings) (Bouchard, 2019; Crosby, 2017; Hull, 2021).

Emotional Intelligence Models

Scholars have developed three distinct conceptualizations of EQ, including the ability, trait, and mixed models (Ambavale & Dani, 2014; Bouchard, 2019; Crosby, 2017; Harper, 2019; Hull, 2021; McCleskey, 2014; Pandita, 2012; Vashisht, Singh, & Sharma, 2018). While each model includes its own definition, components, and assessment approach (Crosby, 2017), all models rely on the same four primary dimensions, including self-awareness, self-management, social awareness, and relationship management. On a global level, all models share the same theoretical foundations of recognition, comprehension, and regulation of emotions of the self and others strategically to make decisions (Ambavale & Dani, 2014; Bouchard, 2019; Lee, 2017; Pandita, 2012).

<u>Ability-Based Model</u>

The ability model proposes that EQ is a set of fundamental cognitive-emotional abilities that are genetic and inherited (Crosby, 2017; Hodzic et al., 2018; Mattingly & Kraiger, 2019; Persich et al., 2021). The ability model purports that EQ is separate from personality traits and is a pure facet of standard intelligence, as measures of EQ are developmental in nature; improve with age and experience; and correlate with other kinds of cognitive abilities (Bouchard, 2019; Hull, 2021; Joseph et al., 2015; Pandita, 2012; Taylor-Clark, 2015).

The Mayer-Salovey-Caruso model is the most widely accepted EQ model and the only model based strictly on ability (Crosby, 2017; McCleskey, 2014). The Mayer-Salovey-Caruso model defines EQ as the ability to process and use emotional information as a guide to thinking and behavior (Bouchard, 2019; Cho, Drasgow, & Cao, 2015; Duncan et al., 2017; Gayathri & Meenakshi, 2013; Hudgens-Gibson, 2017; Kozial, 2020; Lievens & Chan, 2017; Long, Yaacob, & Chuen, 2016; Mattingly & Kraiger, 2019; McCleskey, 2014; O'Connor et al., 2019; Pandita, 2012; Vashisht et al., 2018). As can be seen in Figure 2, the Mayer-Salovey-Caruso model consists of four branches (emotional perception, emotional assimilation, emotional understanding, and emotional management), which are further classified into four sets of skills (Crosby, 2017; Faltas, 2018; Gayathri & Meenakshi, 2013; Harper, 2019; Lievens & Chan, 2017; Maul, 2012; Taylor-Clark, 2015). The four-branch process moves from very basic skills in Levels 1-2 to more advanced abilities in

Levels 3-4. Individuals with higher EQ may progress through the four levels more quickly than those with lower EQ (Gayathri & Meenakshi, 2013; Taylor-Clark, 2015).

**Figure 2. Mayer-Salovey-Caruso Model**
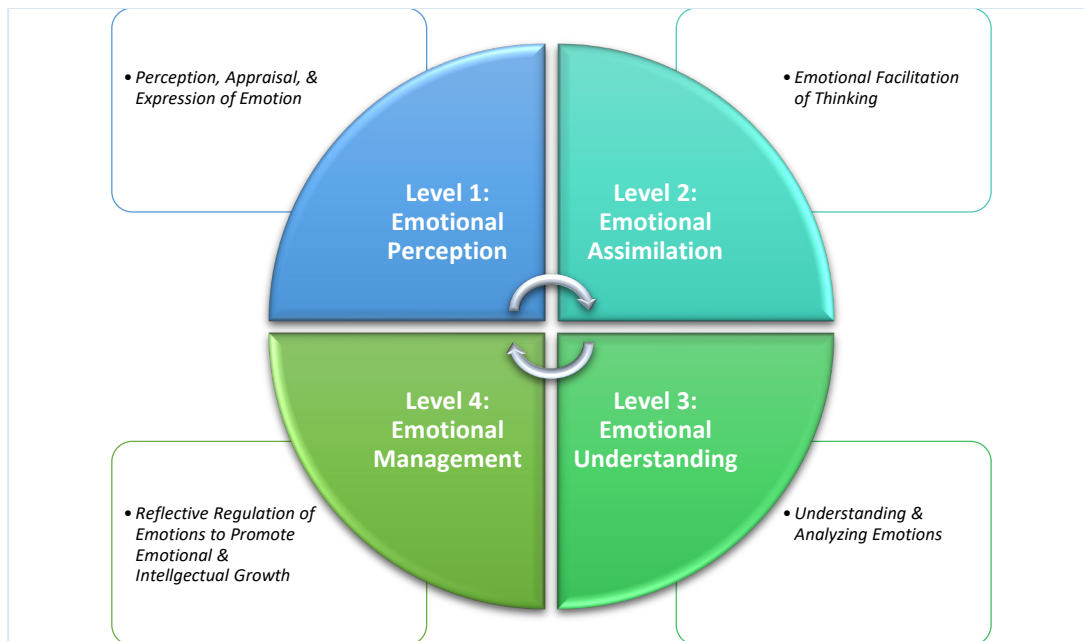
The Mayer-Salovey-Caruso model postulates that EQ facilitates sociopsychological functioning in various contexts (Kong, 2014). For example, EQ influences perceptive thinking ability, intuitive emotion response, problem-solving and stress management abilities, and adaptation in every aspect of life. In organizational settings, EQ is an important tool for training, leadership development, and team building (Long et al., 2016; Olawoyin, 2018). Higher EQ has been correlated with better job performance (see Parke, Seo, & Sherf, 2015) and the ability to achieve a range of adaptive outcomes and emotional states (e.g., motivation, creative thinking) (O'Connor et al., 2019).

Trait-Based Model

The trait model postulates that EQ is associated with personality (Ambavale & Dani, 2014; Crosby, 2017; Lievens & Chan, 2017; McCleskey, 2014). Trait-based EQ broadly consists of self-perceived abilities and dispositional tendencies that dictate how individuals behave in emotional situations (Bouchard, 2019; Crosby, 2017; Hodzic et al., 2018; Persich et al., 2021; Vashisht et al., 2018). According to Persich and colleagues (2021), trait-based EQ is fairly subjective, stable, and resistant to intervention efforts.

The Petrides model is a trait model and the newest of the three EQ models (Crosby, 2017). The Petrides model defines EQ as a collection of emotional-self perceptions located at the lower levels of personality hierarchies as opposed to a cognitive ability (Crosby, 2017; McCleskey, 2014). The Petrides model consists of four characteristics, including wellbeing, self-control, emotionality, and sociability. Wellbeing is associated with self-assurance and bliss, while self-control is related to external pressure management and avoiding impetuosity. Emotionality is associated with compassion and comprehension of emotions of the self and others, whereas sociability is related to purposefulness and emotion management of others (Crosby, 2017) (See Figure 3).

Figure 3. Petrides Model

| Wellbeing	Self-Control	Emotionality	Sociability
•*Self-Assurance*	•*External Pressure Management*	•*Compassion*	•*Purposefulness*
•*Bliss*	•*Avoiding Impetuosity*	•*Comprehension of Emotions of Self and Others*	•*Emotional Management*
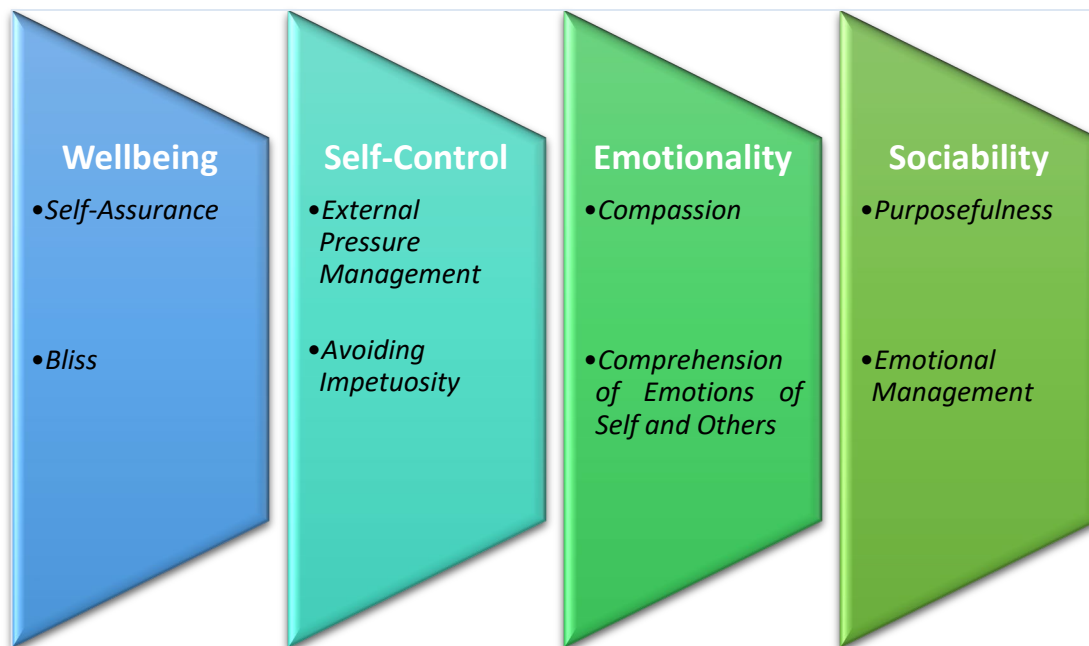
<u>Mixed Model</u>

The Mixed model posits that EQ is a combination of cognitive ability and personality characteristics and competencies, such as self-awareness, motivation/drivers, self-regulation, emotional self-efficacy, self-esteem, wellbeing, empathy/sensitivity, optimism, and social skills (Ambavale & Dani, 2014; Cho et al., 2015; Duncan et al., 2017; Faltas, 2018; Hodzic et al., 2018; Hull, 2021; Joseph et al., 2015; Pandita, 2012; Thory, 2016; Vashisht et al., 2018). Some scholars (e.g., Lievens & Chan, 2017; Mattingly & Kraiger, 2019) have criticized the mixed model as being too all-encompassing, particularly for its ambiguous operational definition and broad components of EQ.

The Bar-On model is a prominent mixed model and defines EQ as a collection of non-cognitive capabilities, competencies, and skills that impacts how effectively individuals understand and express themselves; understand and relate with others; and cope with environmental demands and pressures (Crosby, 2017; Duncan et al., 2017; Gayathri & Meenakshi, 2013; Hull, 2021; Lievens & Chan, 2017; McCleskey, 2014; Taylor-Clark, 2015; Vashisht et al., 2018). As can be seen in Figure 4, the Bar-On model consists of five components (intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood), which are further divided into 15 subcomponents (Crosby, 2017; Gayathri & Meenakshi, 2013; Hull, 2021; Lievens & Chan, 2017; Taylor-Clark, 2015). According to Taylor-Clark (2015), some of the components and subcomponents are classified as cognitive abilities (e.g., emotional self-awareness, problem-solving), while others are more personality-based (e.g., adaptability, optimism).
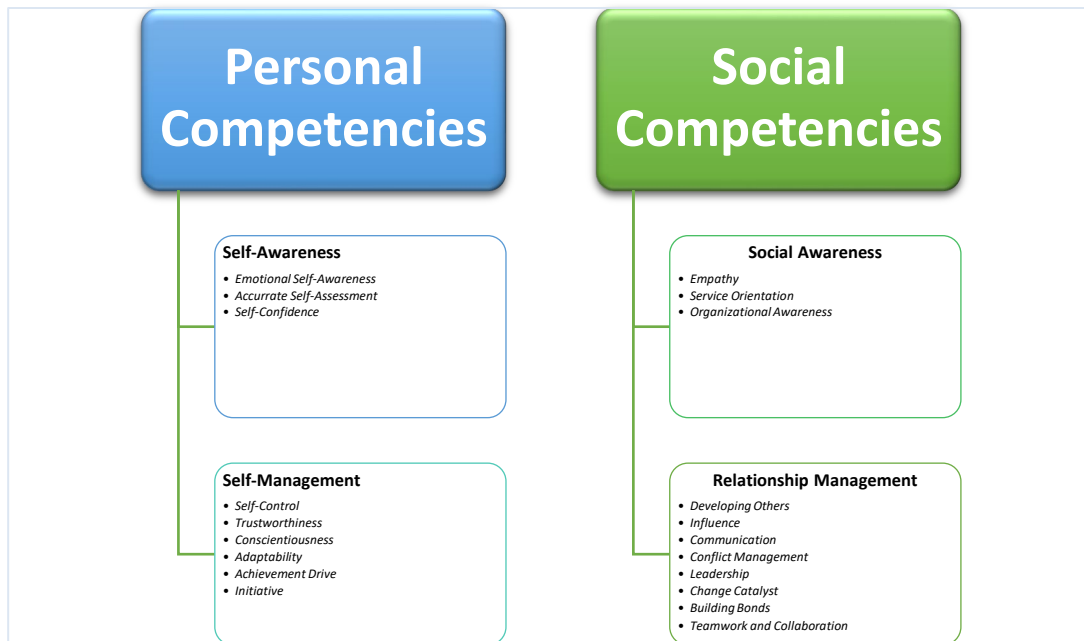
Figure 4. Bar-On Model
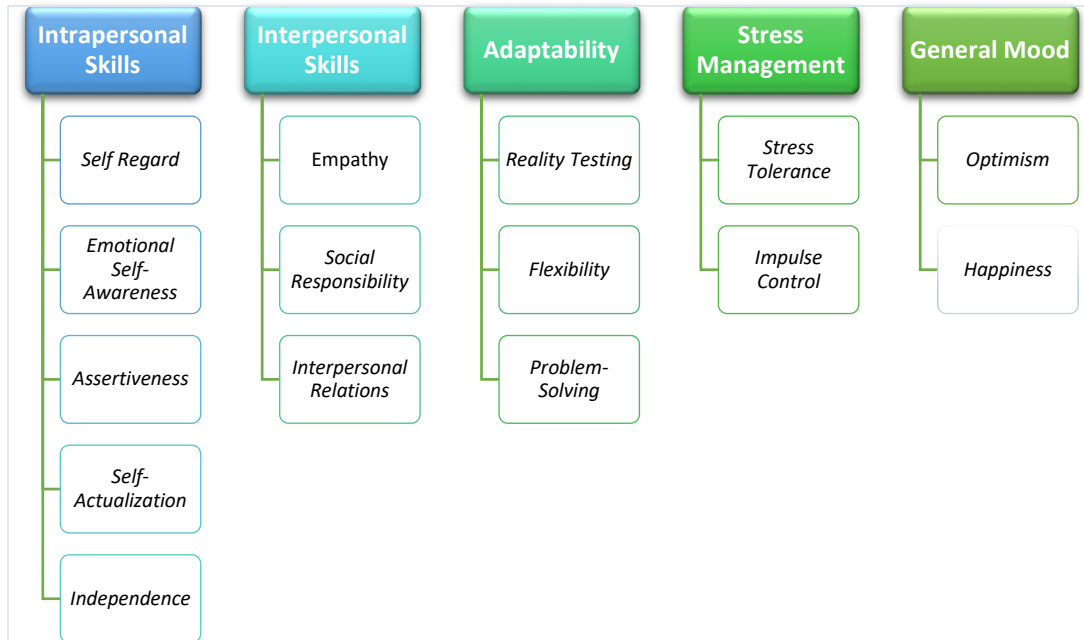
The Bar-On model is regarded by scholars as more process-oriented versus outcome-oriented and may be used to forecast potential for performance or success as opposed to performance or success itself (Gayathri & Meenakshi, 2013; Taylor-Clark, 2015). The Bar-On model postulates that individuals with high EQ are more competent in managing daily demands and challenges and can create constructive change in their lives. In addition, higher EQ can have significant positive effects on one's performance, level of happiness, and overall wellbeing (Crosby, 2017; Gayathri & Meenakshi, 2013). The Bar-On model also proposes that EQ may be cultivated over time via training, programming, and therapy (Gayathri & Meenakshi, 2013).

The Goleman model is another prominent mixed model and proposes that EQ is a latent, inborn talent that determines the potential for individuals to learn emotional skills and competencies that influence their ability to identify, comprehend, and manage emotional information about themselves and others (Bouchard, 2019; Crosby, 2017; Egger, 2014; Gayathri & Meenakshi, 2013; Hudgens-Gibson, 2017; Hull, 2021; Lievens & Chan, 2017; Millar, Devaney, & Butler, 2019; Oliver, 2014; Thory, 2016; Vashisht et al., 2018). According to Millar and colleagues (2019), emotional competencies cluster into groups, which are based on some common underlying EQ capability. As can be seen in Figure 5, the Goleman model consists of four competency clusters (self-awareness, self-management, social awareness, and relationship management), which are further classified into 20 subcompetencies (Aldridge, 2013; Crosby, 2017; Egger, 2014; Faltas, 2018; Gayathri & Meenakshi, 2013; Hudgens-Gibson, 2017; Hull, 2021; Millar et al., 2019; Taylor-Clark, 2015). The self-awareness and self-management clusters fall under the personal competencies domain, while the social awareness and relationship management clusters fall under the social competencies domain (Crosby, 2017; Faltas, 2018; Taylor-Clark, 2015).

Figure 5. Goleman Model

Personal Competencies	Social Competencies
Self-Awareness	**Social Awareness**
• *Emotional Self-Awareness*	• *Empathy*
• *Accurate Self-Assessment*	• *Service Orientation*
• *Self-Confidence*	• *Organizational Awareness*
Self-Management	**Relationship Management**
• *Self-Control*	• *Developing Others*
• *Trustworthiness*	• *Influence*
• *Conscientiousness*	• *Communication*
• *Adaptability*	• *Conflict Management*
• *Achievement Drive*	• *Leadership*
• *Initiative*	• *Change Catalyst*
	• *Building Bonds*
	• *Teamwork and Collaboration*

The Goleman model has been applied in professional settings to evaluate management and leadership practices and forecast employee and organizational performance and success (Faltas, 2018; Taylor-Clark, 2015). The Goleman model postulates that EQ drives leadership and teamwork in the workplace and influences perceptions, decisions, communication styles, and relationships among individuals (Faltas, 2018). It is important to note that possessing high EQ does not guarantee that one possesses the necessary emotional competencies to succeed, merely one has high potential to learn those competencies (Millar et al., 2019).The Goleman model posits that EQ is competency-based and thus, may be cultivated through training, practice, feedback, or personal development (Crosby, 2017; Gayathri & Meenakshi, 2013; Hudson, 2016; Hull, 2021; Millar et al., 2019).
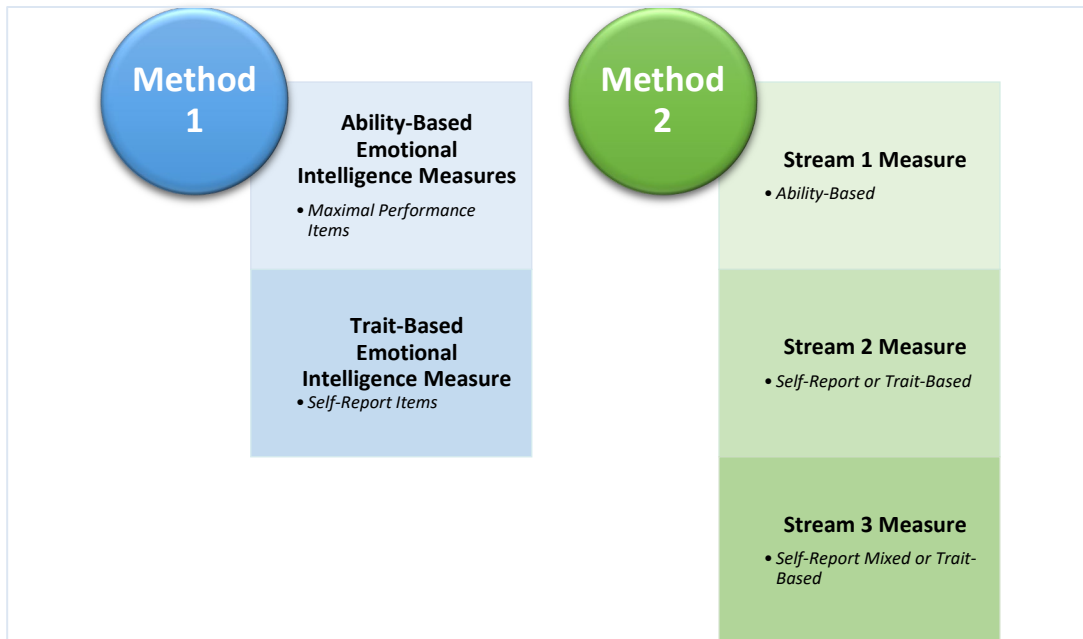
Measuring Emotional Intelligence

Numerous psychometric measures of EQ have emerged over the past 30 years. While scholars within the field are familiar with the conceptually distinct forms of EQ and their respective measures, those outside the field encounter seemingly complex literature, overlapping terminology, and multiple measures with varying degrees of similarity (O'Connor et al., 2019). The following sections provide an overview of the different classifications and widely used measures of EQ. Table 4 summarizes six prominent measures of overall EQ or key constructs (e.g., emotional perception, emotional regulation) of EQ common among multiple measures cited in the literature. Recommendations are also offered throughout regarding appropriate use of certain EQ constructs (ability, trait, and mixed) and measures depending on the context.

Two common methods exist for classifying EQ measures (See Figure 6). The first method classifies EQ measures as ability-based or trait-based (O'Connor et al., 2019). Ability-based EQ measures consist of maximal performance items related to one's theoretical understanding of emotional functioning. Alternatively, trait-based EQ measures consist of self-report items related to one's typical behaviors in emotion-relevant situations and self-rated abilities (O'Connor et al., 2019; Persich et al., 2021). The second method classifies EQ measures as either Stream 1 (ability-based), Stream 2 (self-report), or Stream 3 (self-report mixed). Both Streams 2-3 could also be classified as trait-based measures, as self-report measures tend to correlate strongly despite being classified as Stream 2 or Stream 3 measures (McCleskey, 2014; O'Connor et al., 2019).

Figure 6. Classification Methods of Emotional Intelligence Measures

Ability-Based Measures

Ability-based measures consist of items that are analogous to those included in intelligence quotient (IQ) tests and provide a good indication of one's understanding of emotional functioning. Scholars and practitioners who are interested in learning more about emotional abilities and competencies are encouraged to utilize ability-based measures. An advantage of ability-based measures is that they are typically more engaging than trait-based measures (O'Connor et al., 2019). For example, test-takers must attempt to solve emotion-related problems, solve puzzles, and rate emotions in pictures as opposed to simply rating various statements, which are common for trait-based measures (Hull, 2021; O'Connor et al., 2019). Since ability-based measures consist of items with correct and incorrect responses, test-takers are encouraged to select correct responses and attempt to achieve as high of a score as possible (Hull, 2021; Miao, Humphrey, & Qian, 2018; O'Connor et al., 2019).

It is important to highlight some of the fundamental problems associated with ability-based measures. Scholars question the existence of ability-based EQ since it has been found to correlate strongly with IQ. In addition, common ability-based EQ measures tend to have fairly poor

psychometric properties. Since ability-based measures consist of maximal performance items, they do not predict typical behavioral outcomes as well as trait-based measures (O'Connor et al., 2019).

The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is the most extensively researched and supported ability-based measure, having been cited in over 1,500 research studies. The MSCEIT is a highly commercialized measure and fairly costly to use (O'Connor et al., 2019). Comprised of 141 items, the MSCEIT consists of four constructs and takes approximately 30-45 minutes to complete, which may be too time consuming for some test-takers (Bouchard, 2019; Crosby, 2017; O'Connor et al., 2019). Certification and/or qualification is required for administrators of the MSCEIT (Crosby, 2017; O'Connor et al., 2019).

Practical alternatives to the MSCEIT include the Situational Test of Emotional Management (STEM) and Situational Test of Emotional Understanding (STEU). The STEU includes many items related to workplace behavior and thus, is appropriate for use in organizational settings (O'Connor et al., 2019). The STEM is comprised of 44 items that assess anger, sadness, and fear. The STEU consists of 42 items that assess emotions in three contexts, including de-contextualized, work, and private life. The STEM and STEU are becoming increasingly utilized in research studies and have relatively strong psychometric properties (Egger, 2014; O'Connor et al., 2019). While the STEM and STEU are not freely available for commercial use without permission, they are likely more affordable and contain fewer items than the MSCEIT (O'Connor et al., 2019).

Trait-Based Measures

Trait-based measures consist of self-report items that assess overall EQ and its subdimensions and provide a good prediction of typical behaviors in various contexts (e.g., coping behaviors in response to stress) (O'Connor et al., 2019). Self-report measures require individuals to report how well they perceive emotional expression accurately (Egger, 2014; O'Connor et al., 2019). Scholars and practitioners who are interested in learning more about behavioral tendencies and emotional self-efficacy, especially in educational and employment contexts, are encouraged to utilize trait-based measures. Trait-based measures are also recommended when an overall measure of emotional functioning that can predict personal and professional effectiveness is desired. In addition, trait-based measures tend to have good psychometric properties and correlate moderately with a range of behavioral outcomes (O'Connor et al., 2019).

Like ability-based measures, there are also some underlying problems associated with trait-based measures. For example, scholars have questioned the theoretical basis of trait-based measures, claiming that these measures assess nothing fundamentally different from the Big Five Personality Test. In addition, results obtained from trait-based measures may not always be accurate, as individuals are not always cognizant of their behavioral tendencies and emotion-related abilities (O'Connor et al., 2019). Likewise, trait-based measures are susceptible to response bias (Crosby, 2017; Egger, 2014; O'Connor et al., 2019). Test-takers may respond to items in a strategic and socially desirable manner to appear more emotionally intelligent, particularly when important others will have access to their results (e.g., potential employer, supervisor) (Egger, 2014; O'Connor et al., 2019).

The Trait Emotional Intelligence Questionnaire (TEIQue) is one of the most comprehensive and widely researched trait-based measures, having been cited in over 2,000 research studies (O'Connor et al., 2019). The TEIQue is available in a short and long form. Comprised of 30 items, the short form is recommended for scholars and practitioners who are interested in only assessing four, broad factors of EQ. Comprised of 153 items, the long form is recommended for use when EQ training and executive coaching is involved, as the four factors and 15 facets of EQ offer more

comprehensive information and thus, allow for more focused intervention (Crosby, 2017; O'Connor et al., 2019). Both the short and long forms have strong empirical support for reliability and validity (McCleskey, 2014; O'Connor et al., 2019). The TEIQue is not freely available for commercial use without permission and is not recommended for personnel selection in organizational settings, as self-report measures are susceptible to response bias.

A practical alternative to the TEIQue is the Schutte Self-Report Emotional Intelligence Test (SSEIT). The SSEIT is one of the few widely used and freely available trait-based measures that has been adequately researched (cited over 3,000 times) (O'Connor et al., 2019). Comprised of 33 items, the SSEIT is a multidimensional measure that assesses four factors of EQ and has relatively good psychometric properties (Cho et al., 2015; Hull, 2021; McCleskey, 2014; O'Connor et al., 2019).

Mixed Measures

Mixed measures consist of questionnaires that assess abilities, competencies, traits, and social skills that frequently coincide with personality measures (Miao et al., 2018; O'Connor et al., 2019). Mixed measures are typically self-report or 360-degree forms of assessment, which combine self-report and reports from supervisors, colleagues, and subordinates (O'Connor et al., 2019; Taylor-Clark, 2015). Scholars and practitioners who are interested in learning more about broader emotion- and social-related dispositions and competencies, especially in employment contexts, are encouraged to utilize mixed measures. Mixed measures based on 360-degree forms of assessment offer test-takers detailed information about their self-perceptions and how others perceive them, which is particularly useful for forecasting and enhancing performance in the workplace. Research studies have found that mixed measures are valid predictors of various emotion-related outcomes, such as job satisfaction, organizational commitment (see Miao, Humphrey, & Qian, 2017), and job performance (see O'Boyle et al., 2011) (O'Connor et al., 2019).

The Emotional Quotient Inventory (EQ-i) is one of the most widely recognized mixed measures (Taylor-Clark, 2015; Webb et al., 2013). The EQ-i is a self-report instrument designed to measure abilities and potential for performance among individuals 18 years of age and older with at least a sixth-grade reading level (Crosby, 2017; O'Connor et al., 2019; Webb et al., 2013). The EQ-i is appropriate for use in the workplace to match EQ with job fitness in various sectors (Olawoyin, 2018). Comprised of 125 items, the EQ-i is a multidimensional measure that assesses five factors and 15 subscales of EQ (Crosby, 2017; O'Connor et al., 2019; Shahid, Stirling, & Adams, 2018; Taylor-Clark, 2015; Webb et al., 2013). The EQ-i is available in online or written format and takes approximately 30 minutes to complete (Ambavale & Dani, 2014; Crosby, 2017; Shahid et al., 2018). Certification is required for administrators of the EQ-i (Crosby, 2017). While the EQ-i has relatively good psychometric properties, some scholars have criticized the instrument for its susceptibility to response bias (McCleskey, 2014; Webb et al., 2013).

The Emotional and Social Competence Inventory (ESCI) is a 360-degree assessment that uses self-ratings, peer ratings, and supervisor ratings to evaluate EQ competencies (Ambavale & Dani, 2014; Crosby, 2017; McCleskey, 2014; O'Connor et al., 2019; Olawoyin, 2018; Taylor-Clark, 2015). The ESCI has relatively good psychometric properties and is frequently used to predict workplace success (O'Connor et al., 2019), leadership success, global management performance, employee retention, and other job outcomes (Olawoyin, 2018). Comprised of 110 items, the ESCI is a multidimensional measure that assesses four factors and 12 competencies of EQ (Ambavale & Dani, 2014; O'Connor et al., 2019). Certification is required for administrators of the ESCI (Crosby, 2017). Although the ESCI has relatively good psychometric properties (Ambavale & Dani, 2014; Crosby, 2017; O'Connor et al., 2019; McCleskey, 2014), some scholars have highlighted the limitations of

observer-rating methods. For example, an observer cannot evaluate an individual in all situations. In addition, observer ratings can be skewed in a negative light if they do not like the individual being evaluated (Taylor-Clark, 2015).

Table 4. Emotional Intelligence Measures

Measure	Original Citation	Theoretical Basis	Length & Description	Example Items	Access
Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)	Mayer, J. D., Salovey, P., & Caruso, D. R. (2002a). Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) Item Booklet. Toronto, ON: MHS Publishers. Mayer, J. D., Salovey, P., & Caruso, D. R. (2002b). Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) User's Manual. Toronto, ON: MHS Publishers. Mayer, J. D., Salovey, P., Caruso, D. R., & Sitarenios, G. (2003). Measuring emotional intelligence with the MSCEIT V2. 0. *Emotion, 3*, 97–105. doi: 10.1037/1528-3542.3.1.97	In 1997, Salovey and Mayer developed a four-branch approach to ability-based EQ called MEIS; it has been developed into the MSCEIT. The revised model is a process-oriented model that emphasizes stages of development in EQ, potential for growth, and the contributions emotions make to intellectual growth. The scale was developed based on a review of ability-based EQ literature around focusing on individuals' processing of emotion-related information. Each of the four branches is measured with two, objective, ability-based tasks. There are different response formats. Some tasks (e.g., Picture Task) use 5-point rating scales, while others (e.g., Blends Task) use a multiple-choice response. For all questions, answers can be considered correct or incorrect in a similar way to IQ tests. The facets are defined as follows: (1) *Perceiving Emotions* is the ability to correctly identify how oneself and others are feeling. (2) *Facilitating Thought* is the ability to create emotions that impact thought processes. (3) *Understanding Emotion* is the ability to understand the causes of emotions. (4) *Managing Emotion* is the ability to create effective strategies that utilize emotions for a specific purpose.	Consists of 141 questions. Consists of eight MSCEIT tasks, which are made up of numerous individual items. Consists of four constructs: (1) *Perceiving Emotions* (2) *Facilitating Thought* (3) *Understanding Emotions* (4) *Managing Emotions*	In the four-item Faces Task, participants view a series of faces and indicate the degree to which a specific emotion is present in the face on a five-point scale.	https://storefront.mhs.com/collections/msceit#PricingOrdering
Schutte Self-Report Emotional Intelligence Test (SSEIT)	Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., et al. (1998). Development and validation of a measure of emotional intelligence. *Personality & Individual Differences, 25*, 167–177. doi: 10.1016/S0191-8869(98)00001-4	In 1998, Schutte and colleagues developed a self-report EQ questionnaire based on Salovey and Mayer's (1990) model. A factor analysis was conducted on 62 items using data from 346 participants, from which a 33-item scale was created. The measure showed good internal consistency (α = 0.90) and test-retest reliability (*r* = 0.78). The scale was also tested against theoretically-related constructs, including alexithymia, non-verbal communication of affect, optimism, pessimism, attention to feelings, clarity of feelings, mood repair, depressed mood, and impulsivity and was found to have construct validity. The model, however, has been criticized for confusing ability and trait forms of EQ. Participants respond to items on a five-point Likert-type scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*).	Consists of 33 self-report statements. Consists of four factors: (1) *Optimism/Mood Regulation* (2) *Appraisal of Emotions* (3) *Social Skills* (4) *Utilization of Emotions*	"I am aware of my emotions as I experience them."	https://depts.washington.edu/uwcssc/sites/default/files/hw00/d40/uwcssc/sites/default/files/The%20Schutte%20Self%20Report%20Emotional%20Intelligence%20Test%20(SSEIT).pdf
Trait Emotional Intelligence Questionnaire (TEIQue) *(Short Form)* *(Long Form)*	Petrides, K. V., & Furnham, A. (2001). Trait emotional intelligence: Psychometric investigation with reference to established trait taxonomies. *European Journal for Person Centered Healthcare, 15*, 425-448. doi: 10.1002/per.416	*TEIQue (Long Form):* The TEIQue is based on trait-EQ theory, which conceptualizes EQ as a personality trait. It has also been described as *emotional self-efficacy*. Unlike the SSEIT, it did not originally aim to measure ability-based EQ with self-report questions. Item and facets were developed by conducting a content analysis of the EQ literature and available constructs. *TEIQue (Short Form):* The TEIQue (short form) contains 30 items and the same four factors from the long version. Additional adaptations, such as a 360-degree measure, can be found on their website.	*Long Form:* Consists of 153 self-report statements. Consists of four factors and 15 facets: (1) *Wellbeing* (Trait Optimism, Trait Happiness, and Self-Esteem) (2) *Sociability* (Emotional Management [others], Assertiveness, and	"Understanding the needs and desires of others is not a problem for me." "I'm usually able to influence the way other people feel." "I can handle most difficulties in my life in a cool and composed manner."	http://psychometriclab.com/

			(Social Awareness)		
			(3) *Emotionality* (Trait Empathy, Emotional Perception, Emotional Expression, and Relationships)		
			(4) *Self-Control* (Emotional Regulation, Impulsiveness, and Stress Management)		

Source: O'Connor et al. (2019)

Table 4. Emotional Intelligence Measures *(continued)*

Measure	Original Citation	Theoretical Premise	Length & Description	Example Items	Access
Emotional Quotient Inventory (EQ-i)	Bar-On, R. (1996). The Emotional Quotient Inventory (EQ-i): A Test of Emotional Intelligence. Toronto, ON: Multi-Health Systems. Bar-On, R. (1997a). Bar-On Emotional Quotient Inventory: User's Manual. Toronto, ON: Multihealth Systems. Bar-On, R. (1997b). The Emotional Quotient Inventory (EQ-i): Technical Manual. Toronto, ON: Multi-Health Systems, Inc.	Mixed position considers EQ as a mixed construct consisting of both cognitive ability and personality aspects. The EQ-i emphasizes how personality traits influence one's general wellbeing. Bar-On's model was based on empirical research into personal factors related to EQ, particularly emotional and social elements of behavior. The concept was theoretically developed from logically clustering variables and identifying underlying key factors claimed to determine effective and successful functioning. The EQ-i measures abilities and potential for performance rather than performance itself; it is process-oriented rather than outcome-oriented. Bar-On's original report of EQ-i from 1996 is in book form. Since the development of the original EQ-i scale, Bar-On and others have revised the scale and thus, creating EQ-I 2.0. The total EQ-i can be used to create total EQ scores as well as factor and facet/subscale scores. The subscales have adequate internal consistency. Bar-On went on to develop additional test versions, including a youth version (EQ-i: YV) and 360 multi-rater measure (EQ-360).	Consists of 125 items. Consists of five factors and 15 facets/subscales: (1) *Self-Perception* (Self-Regard, Self-Actualization, and Emotional Self Awareness) (2) *Interpersonal* (Interpersonal Relationships, Empathy, and Social Responsibility) (3) *Decision-Making* (Problem-Solving, Reality Testing, and Impulse Control) (4) *Self-Expression* (Emotional Expression, Assertiveness, and Independence) (5) *Stress Management* (Flexibility, Stress Tolerance, and Optimism)	"When I'm angry with others, I can tell them about it." "I know how to deal with upsetting problems." "I like helping people."	http://www.reuvenbaron.org/wp/
Situational Test of Emotional Management (STEM)	MacCann, C., & Roberts, R. D. (2008). New paradigms for assessing emotional intelligence: Theory and data. *Emotion, 8,*	MacCann and Roberts (2008) developed ability-based measures of EQ. MacCann and Roberts based their STEM and STEU scales on two of the four hierarchical ordered branches of emotion-related abilities outlined by Mayer and colleagues (2000): understanding and managing emotions.	*STEM* Consists of 44 items. (1) *Anger* (18 items)	"A supervisor who is unpleasant to work for	May be freely obtained in Appendix 2.1 of MacCann's (2006) study, but permission is

				leaves Alfonso's work. Alfonso is most likely to feel?"	required to use the test for non-research purposes.
Situational Test of Emotional Understanding (STEU)	540–551. doi: 10.1037/a0012746	*STEM* The STEM was developed to be administered in both multiple-choice and rate-the-extent formats (i.e., test takers rate the appropriateness, strength, or extent of each alternative rather than selecting the correct alternative). Items for STEM were developed by conducting semi-structured interviews with 50 individuals who described emotional situations they experienced in the past two weeks (with a total of 290 situations). These items were categorized and tested. *STEU* Emotion appraisal theory was used as the basis for item construction and scoring of the STEU, such that answers could be regarded as correct or incorrect. According to this model, the 17 most common emotions can be explained by a combination of seven appraisal dimensions. The STEU comprised 42 items, with each item presenting emotional situations, and participants had to choose which emotion the situation will most likely elicit. Fourteen emotions were assessed in three, separate contexts*: De-Contextualized, Work, and Private Life.*	(2) *Sadness* (14 items) (3) *Fear* (2 items) *STEU* Consists of 42 items. (1) *De-Contextualized* (14 items) (2) *Work* (14 items) (3) *Private Life* (14 items)	(a) Joy (b) Hope (c) Regret (d) Relief (e) Sadness	
Emotional and Social Competence Inventory (ESCI)	Boyatzis, R. E., Goleman, D., & Rhee, K. (2000). "Clustering competence in emotional intelligence: Insights from the emotional competence inventory (ECI)" in Handbook of Emotional Intelligence, eds R. Bar-On & J. D. A. Parker (San Francisco, CA: Jossey-Bass), 343–362.	The ESCI is based on a mixed model of EQ and regards EQ as consisting of both cognitive ability and personality aspects. The model focuses heavily on predicting workplace success. The ESCI utilizes 360-degree assessment that can include self-ratings, peer ratings, and supervisor ratings. Boyatzis and Goleman include a set of emotional competencies within each construct of EQ. Emotional competencies are not regarded as innate talents but rather, learned capabilities that must be worked on and can be developed to achieve outstanding performance. Boyatzis and Goleman argue that individuals are born with a general EQ potential that determines their potential for learning emotional competencies. Internal consistency of the scale ranges from 0.61 - 0.85.	Consists of 110 items. Consists of 12 competencies organized into four factors: (1) *Self Awareness* (2) *Social Awareness* (3) *Self-Management* (4) *Relationship Management*	"I recognize my emotions and their effects on others." "I can keep disruptive emptions or impulses under control."	http://www.eiconsortium.org/measures/eci_360.html

Source: O'Connor et al. (2019)

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