# PREDICTIVE MODEL TO ASSESS PERSONNEL READINESS

J. BAHLIS, PH.D., P. ENG.

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# Operational Readiness Definition

**Ability to perform missions or functions …**

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# How Operational Readiness is Maintained

**US Army ...**

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# How Operational Readiness is Assessed …

## Conducting realistic training scenarios …

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# Issues: Personnel/Resource Intensive

- Limited opportunity for improvement

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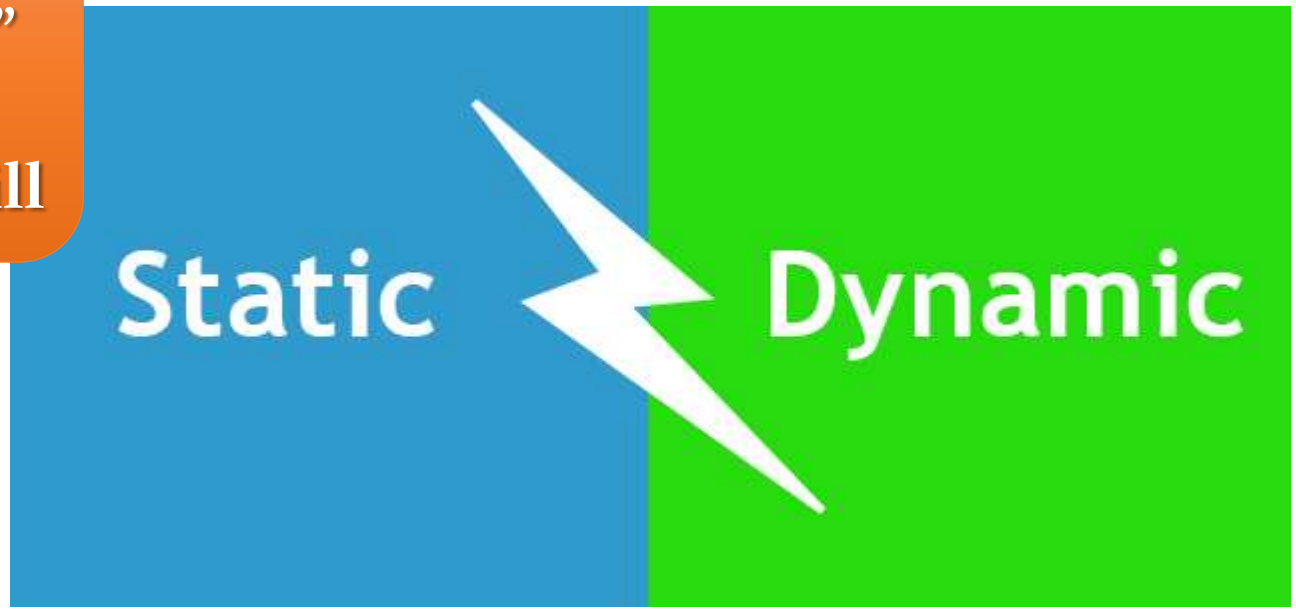
# Issues: How to Manage Change

"To improve is to change; to be perfect is to change often."

Winston Churchill

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# Issues: Backward Looking

- Readiness assessed after exercise completion

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# How to Resolve ...

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# “Digital Twin”

**Predictive model to assess ability to perform missions or functions in Planning Phase.**

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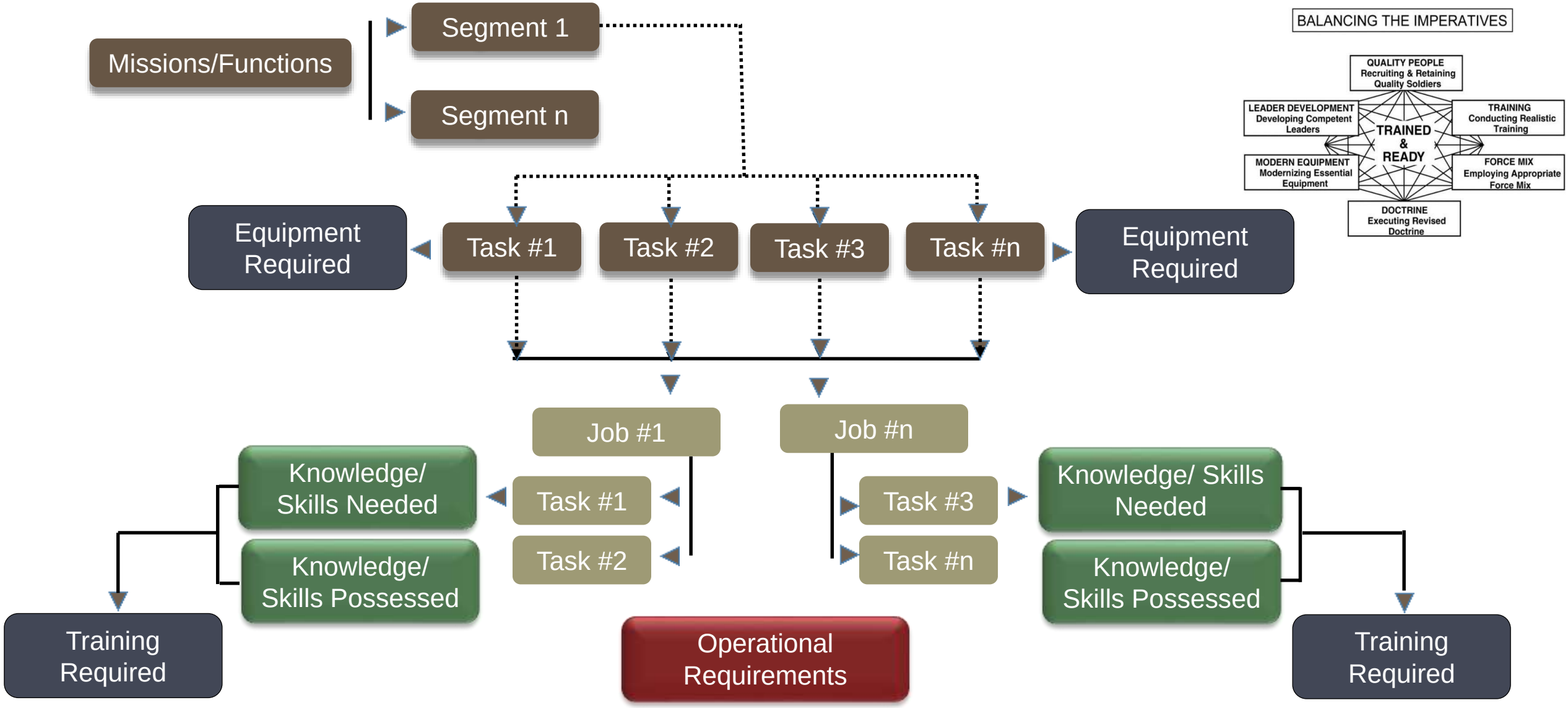
# How it works: Captures Key Requirements

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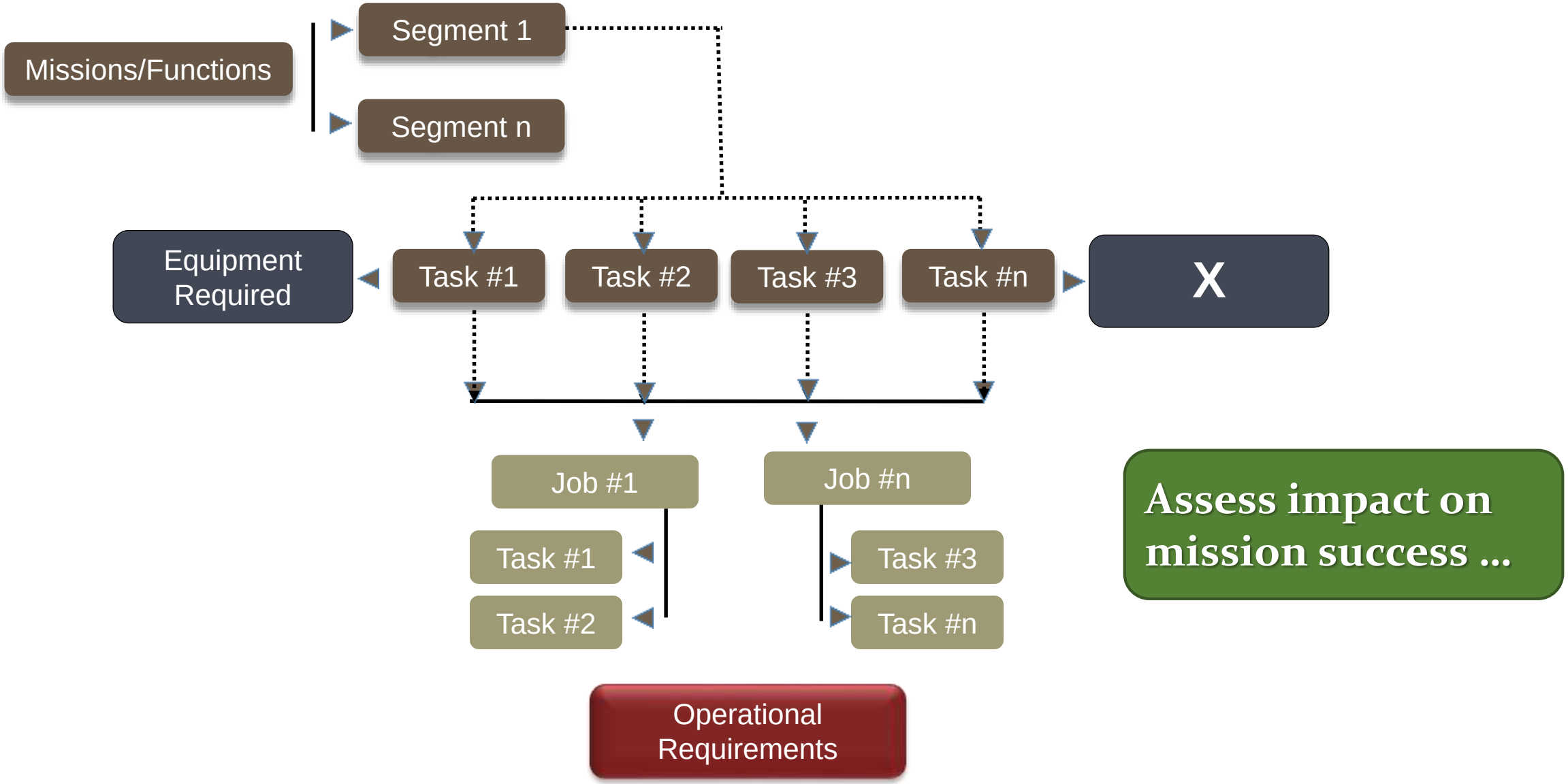
# How it works: Compare Actual to Ideal Equipment




**Assess impact on mission success …**

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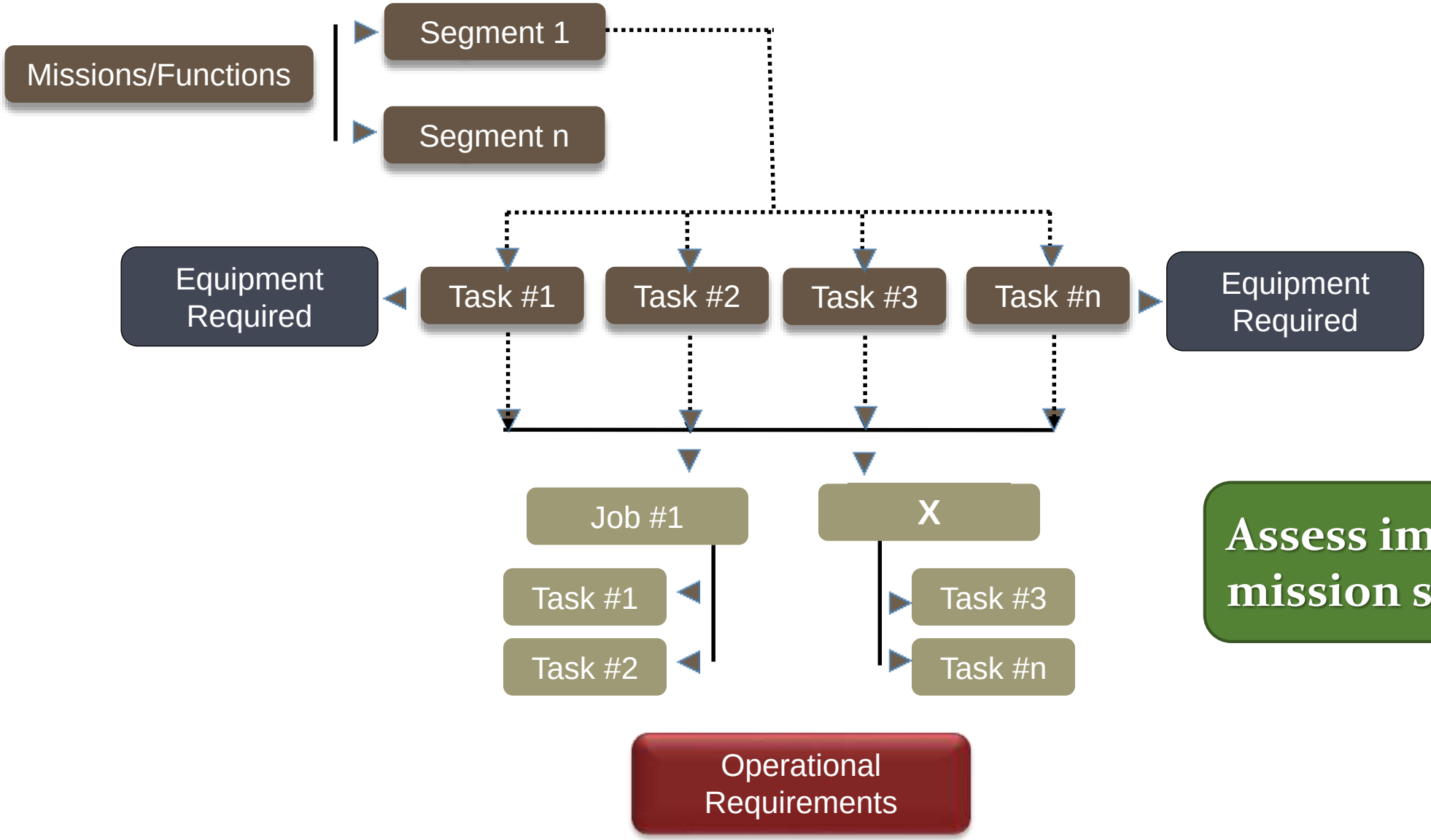
# How it works: Compare Actual to Force Mix




**Assess impact on mission success …**

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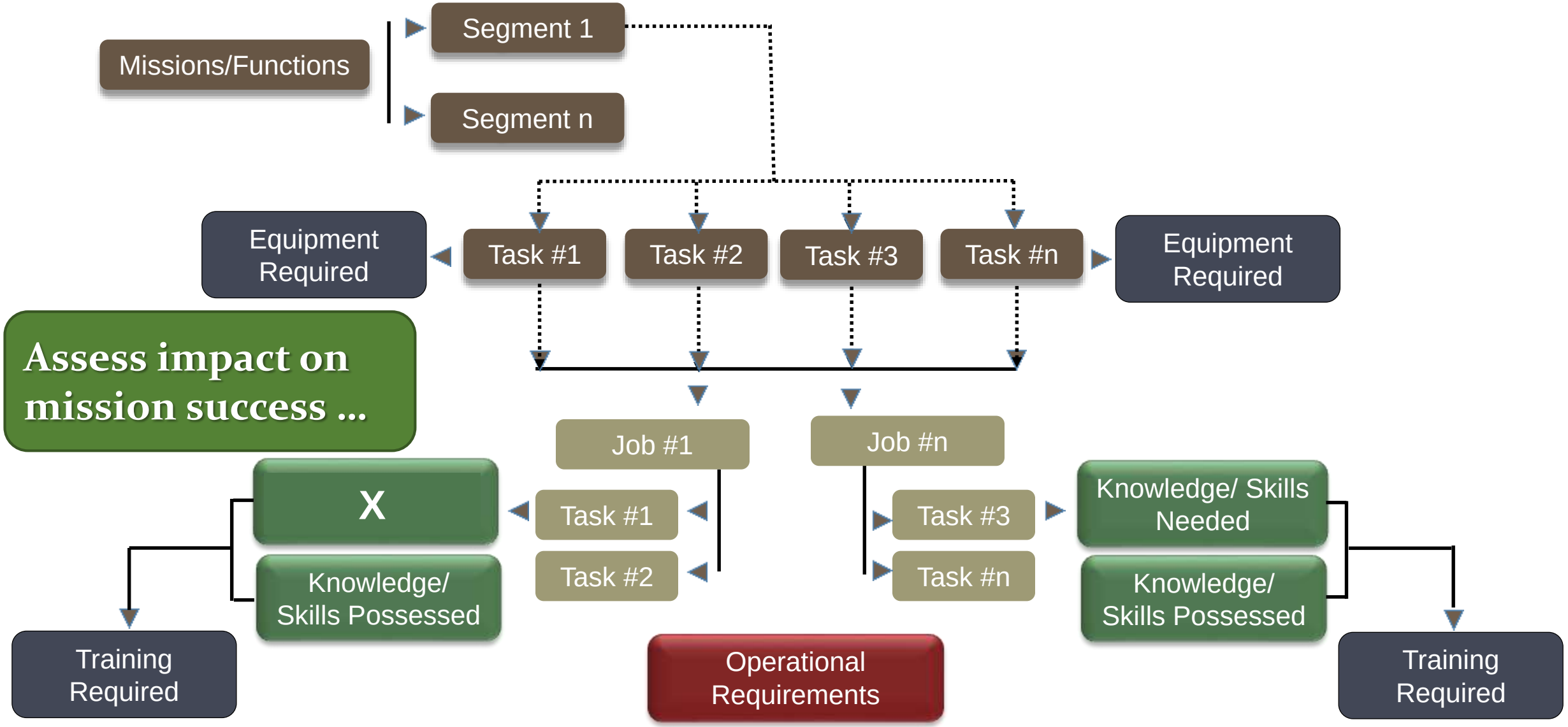
# How it works: Compare Actual to KSAs

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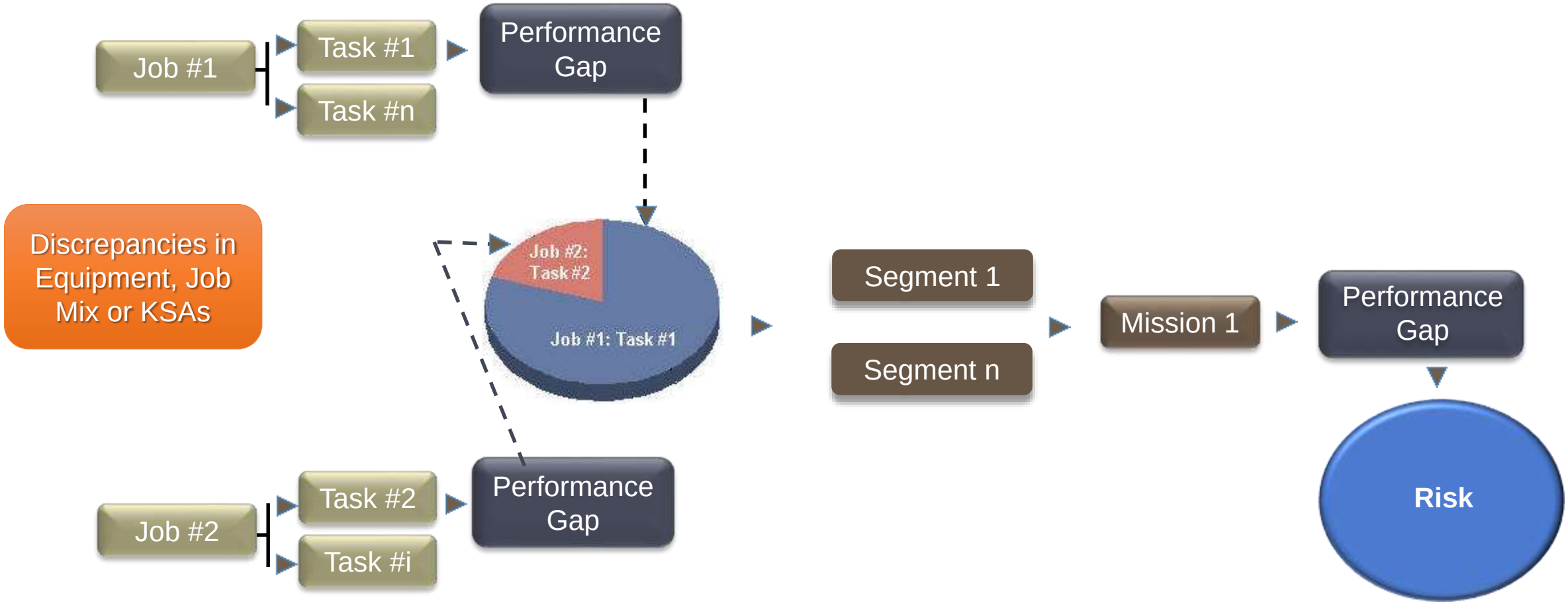
# Performance Analysis …

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# KEY TAKEAWAY

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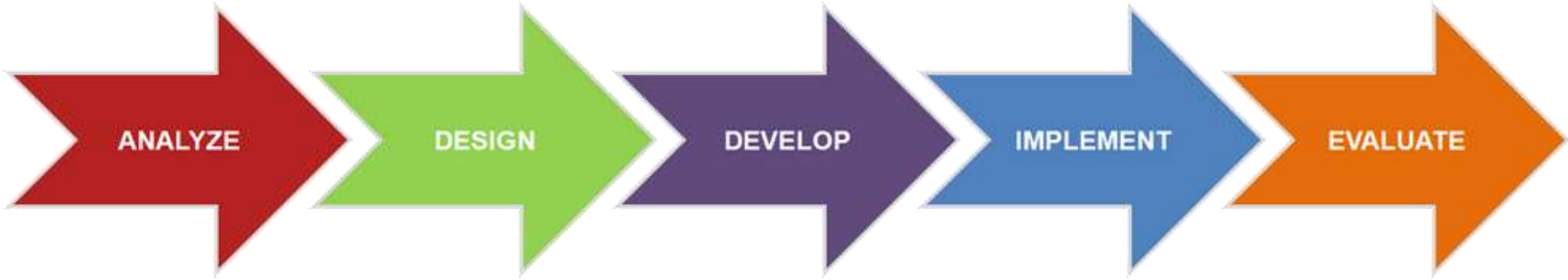
# Key Takeaway

**Analysis is key to Evaluation …**

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# BENEFITS / ADDED VALUE

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# Benefit: Forward Looking

- Assess readiness during planning phase.

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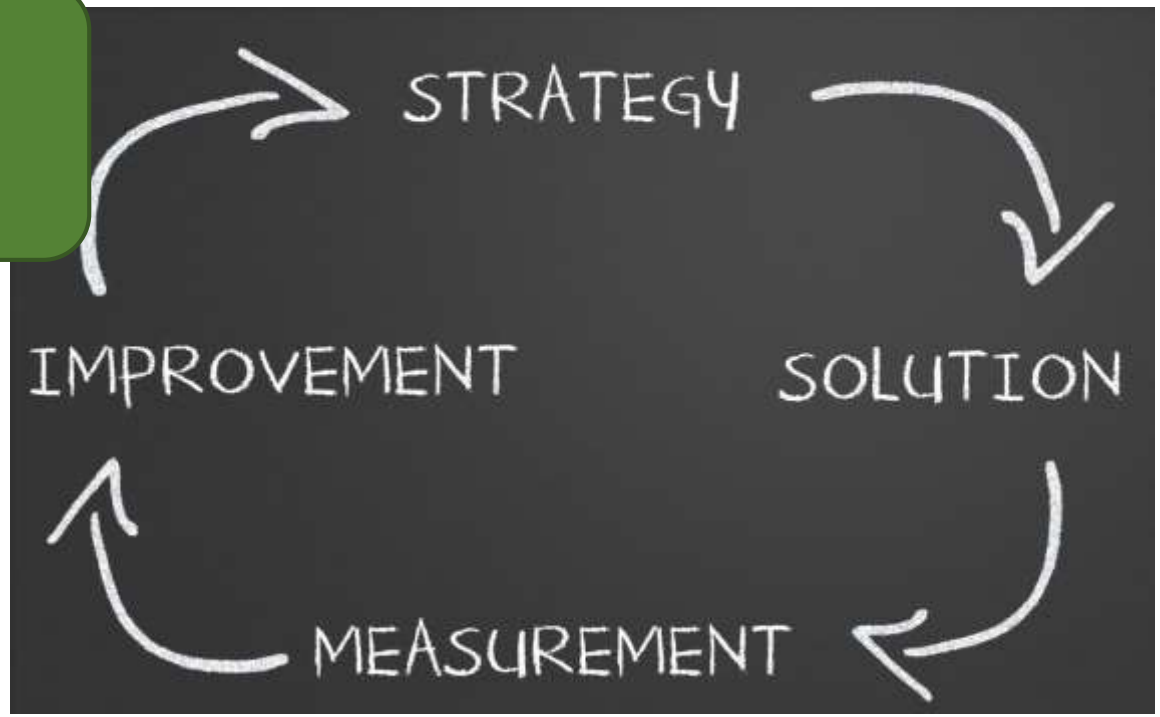
# Benefit: Identify Deficiencies/Gaps

- Assess impact of deficiencies/gaps on job performance & mission success.

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# Benefit: Identify Actions for Success

- Identify actions that would increase chances for success.

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# Benefit: Conduct Multiple What-if-Scenarios

- Identify equipment, job mix & training needed to support new operational requirements.

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# Benefit: Quickly Assess Impact of Change

- Identify impact of changes, updates & amendments to missions, jobs, policies & equipment on organization readiness.

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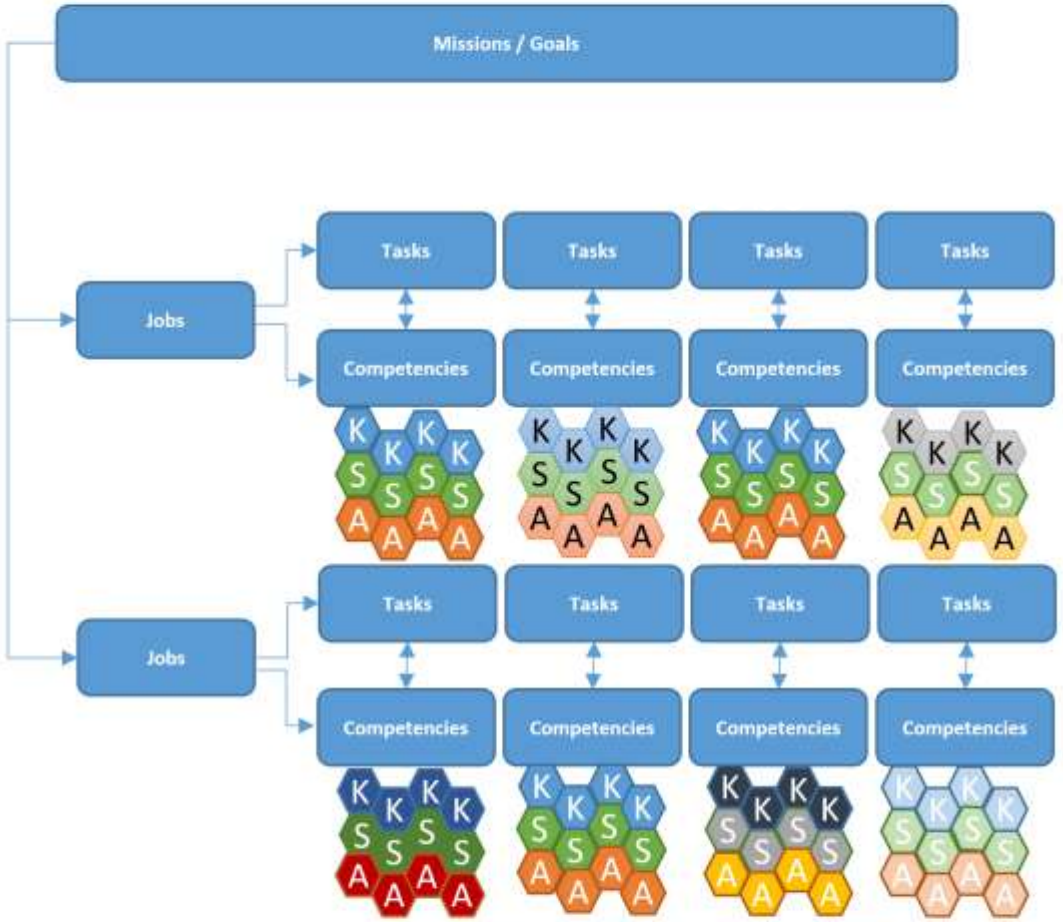
## OPERATIONAL REQUIREMENTS

## TRAINING ACTIVITIES



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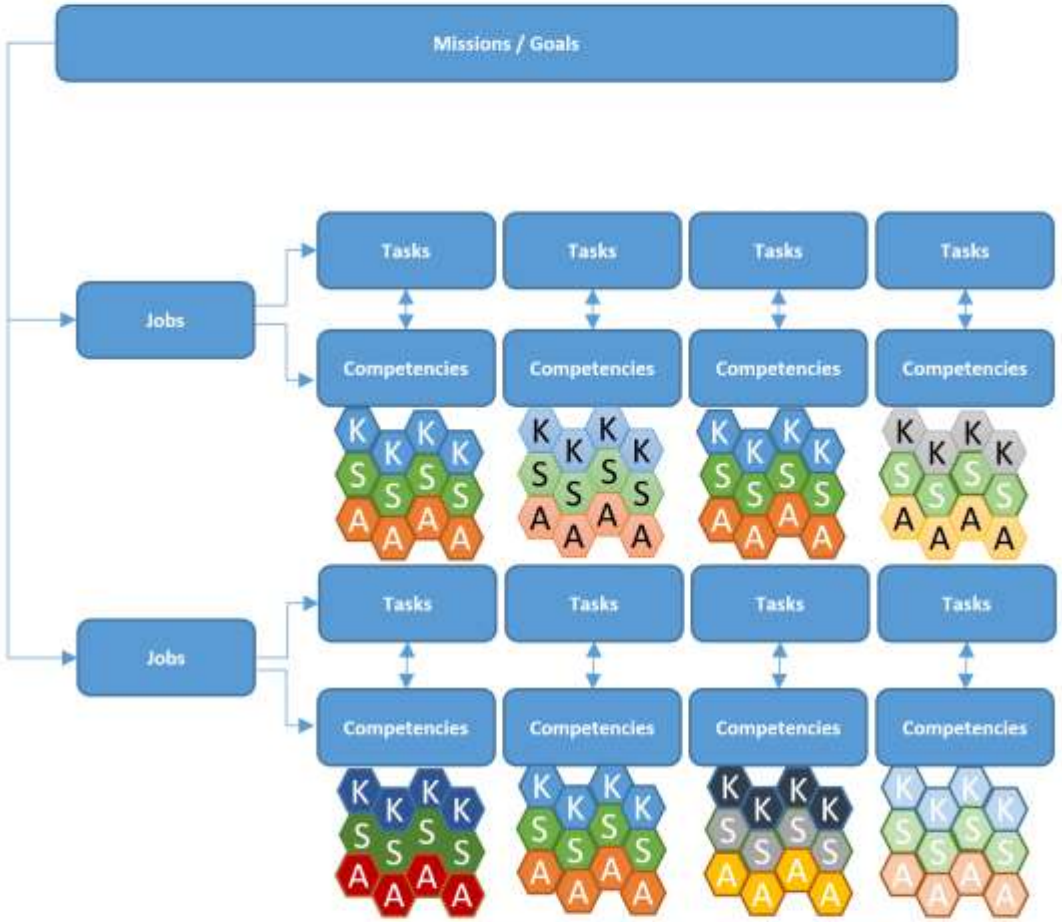
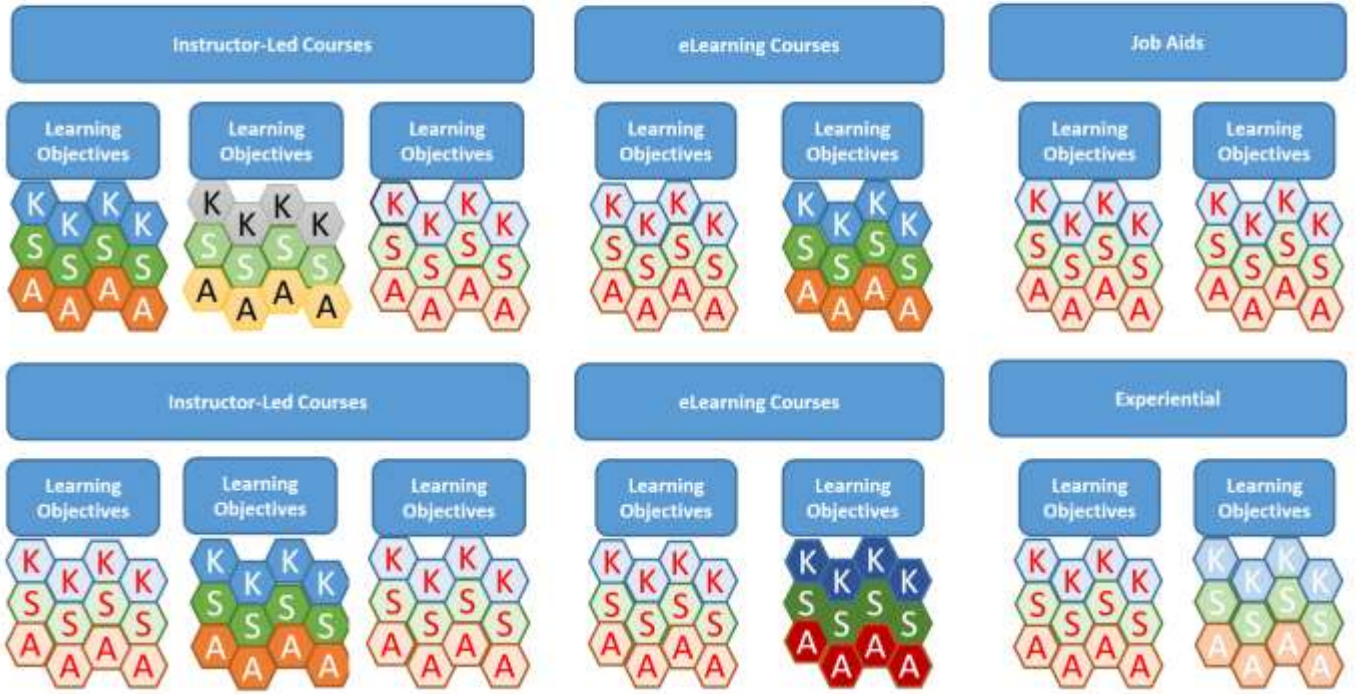
# OPERATIONAL REQUIREMENTS

# TRAINING ACTIVITIES

Effectiveness
Costs/Resources
Time to Competency



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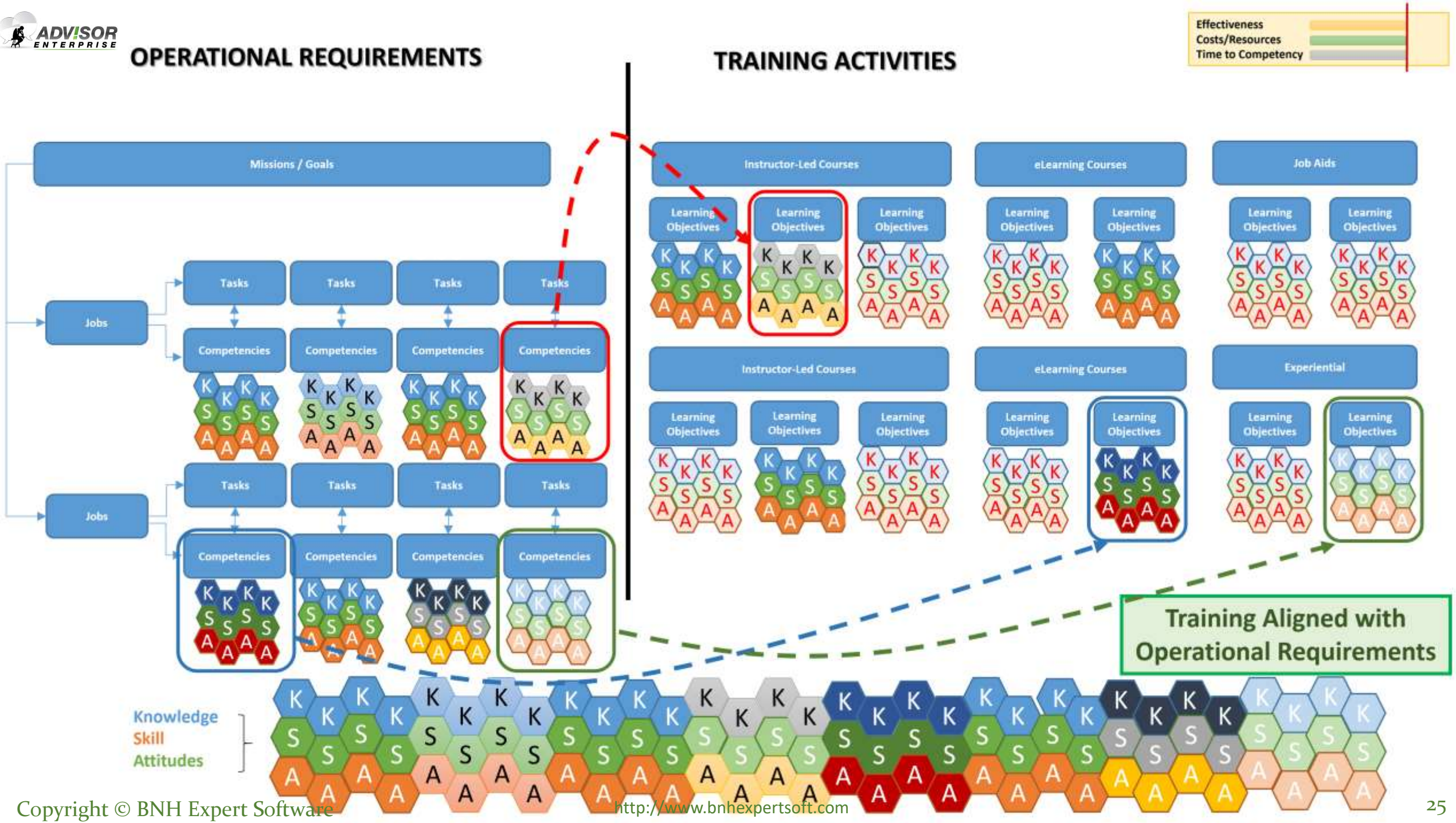


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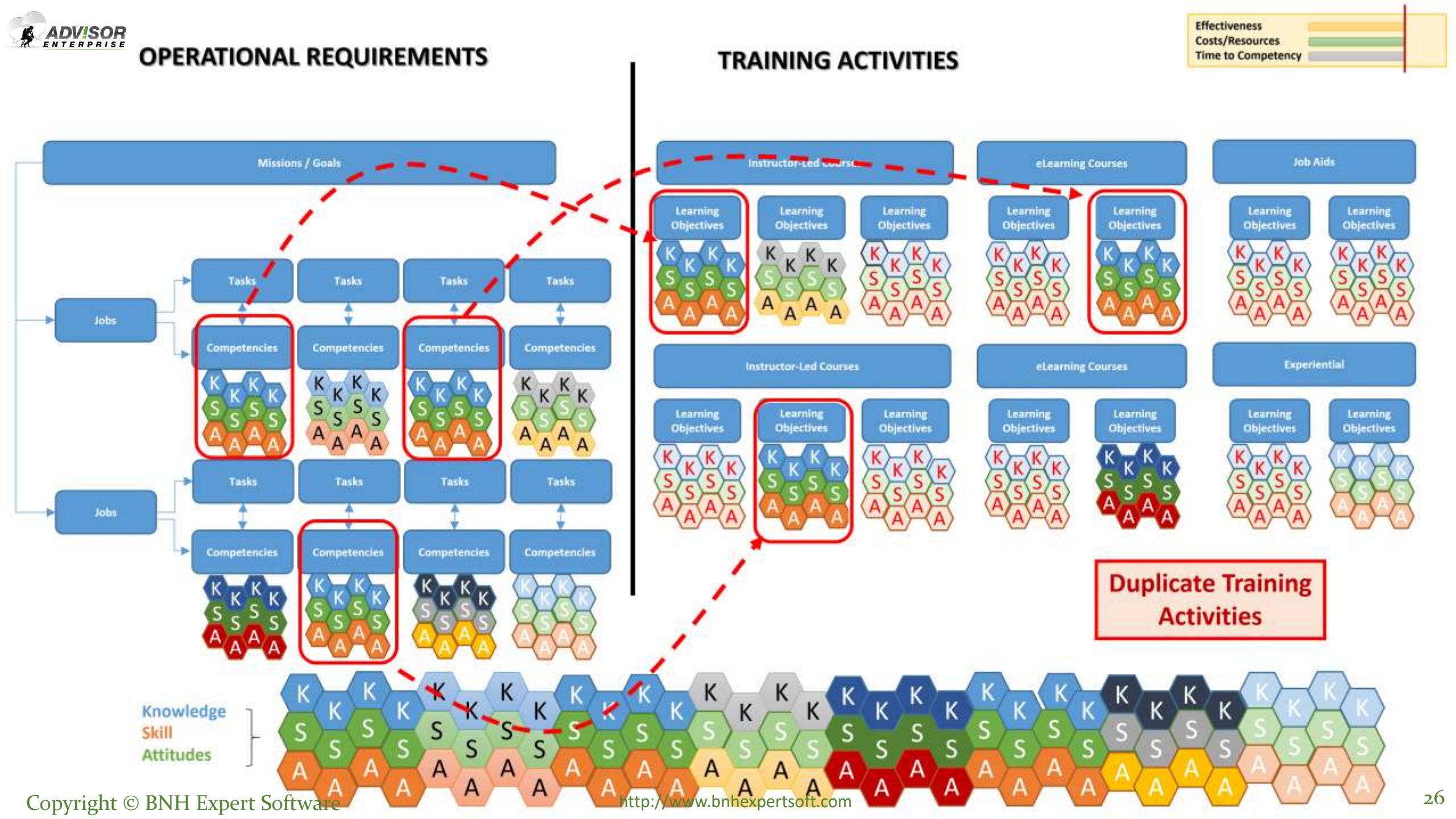


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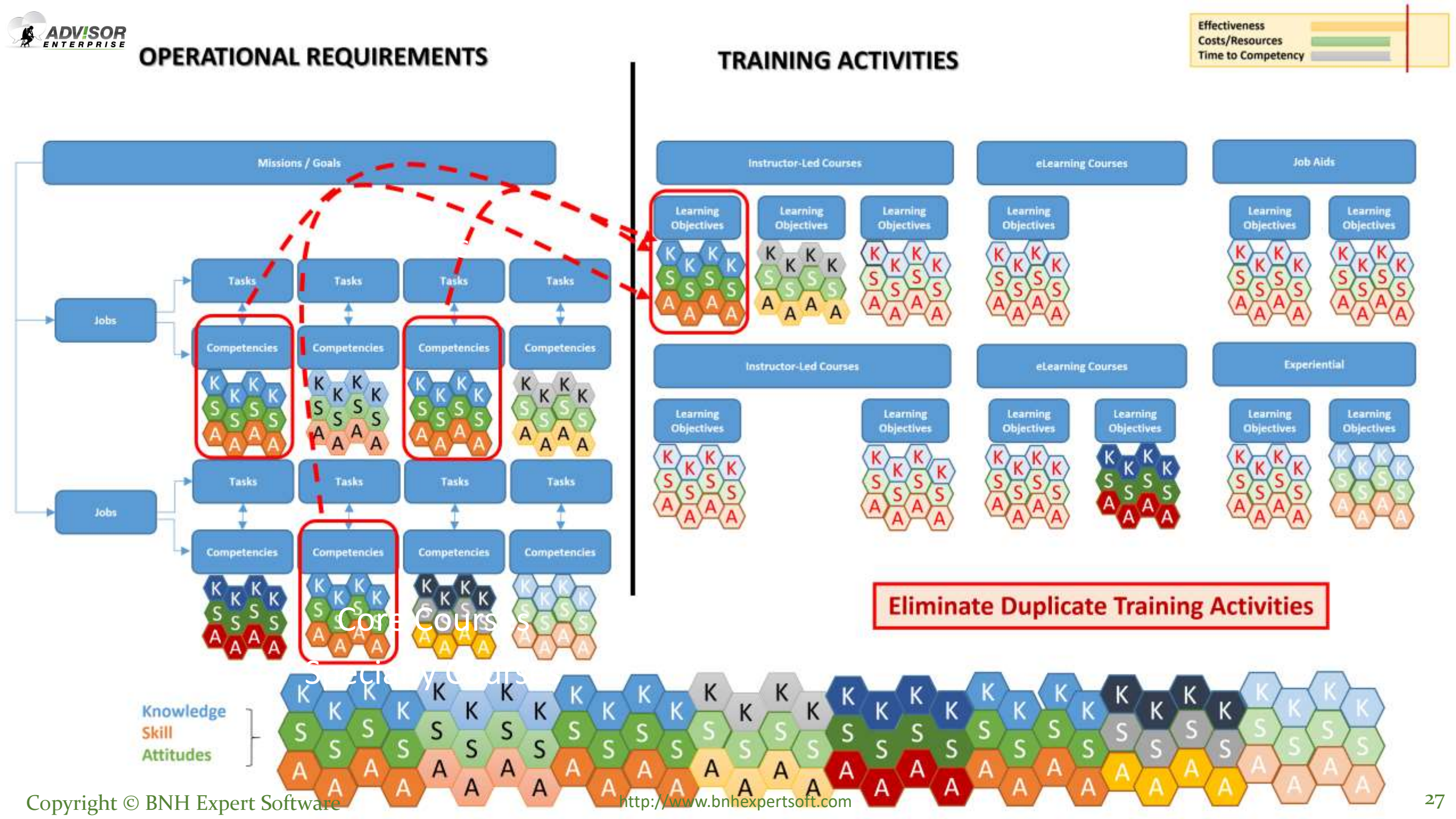


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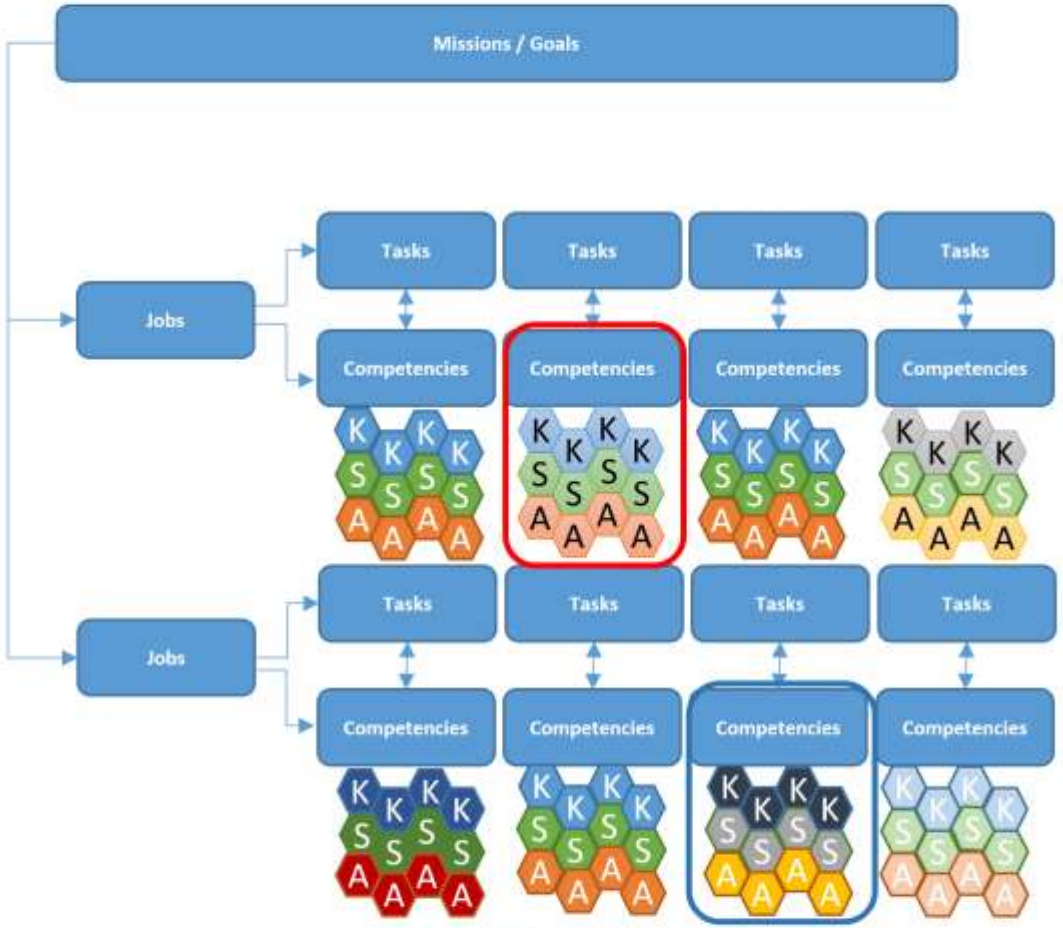
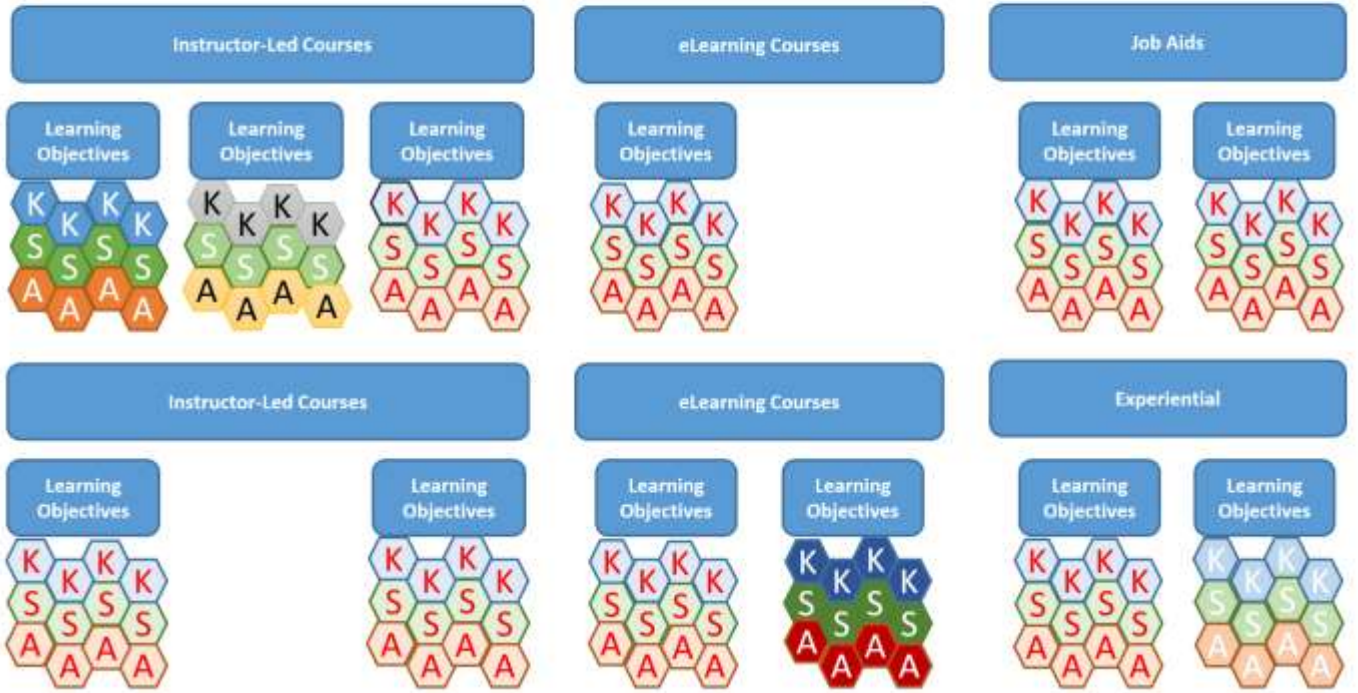
Effectiveness
Costs/Resources
Time to Competency

## OPERATIONAL REQUIREMENTS




## TRAINING ACTIVITIES




**Training Does Not Address All Operational Requirements**

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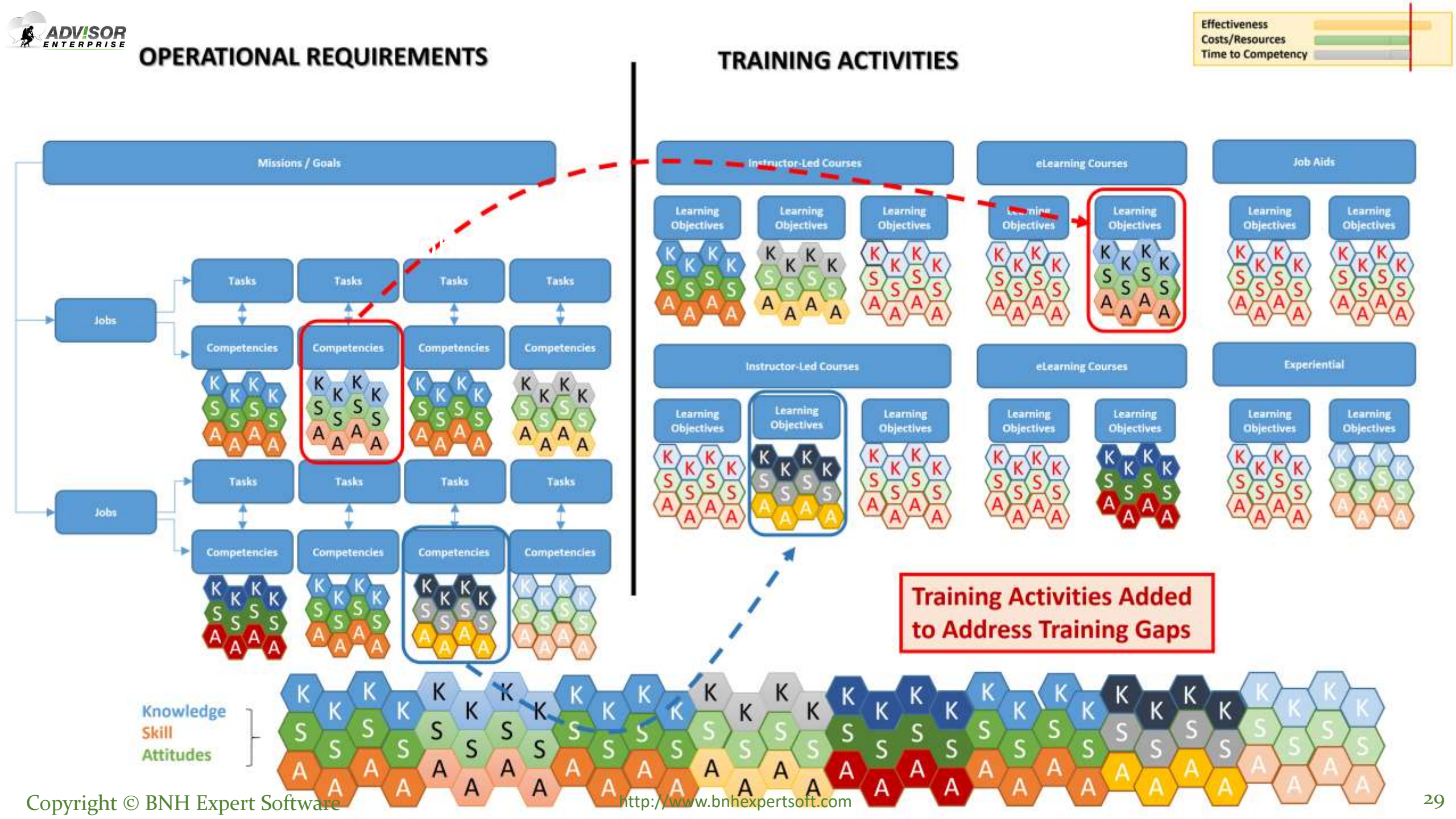


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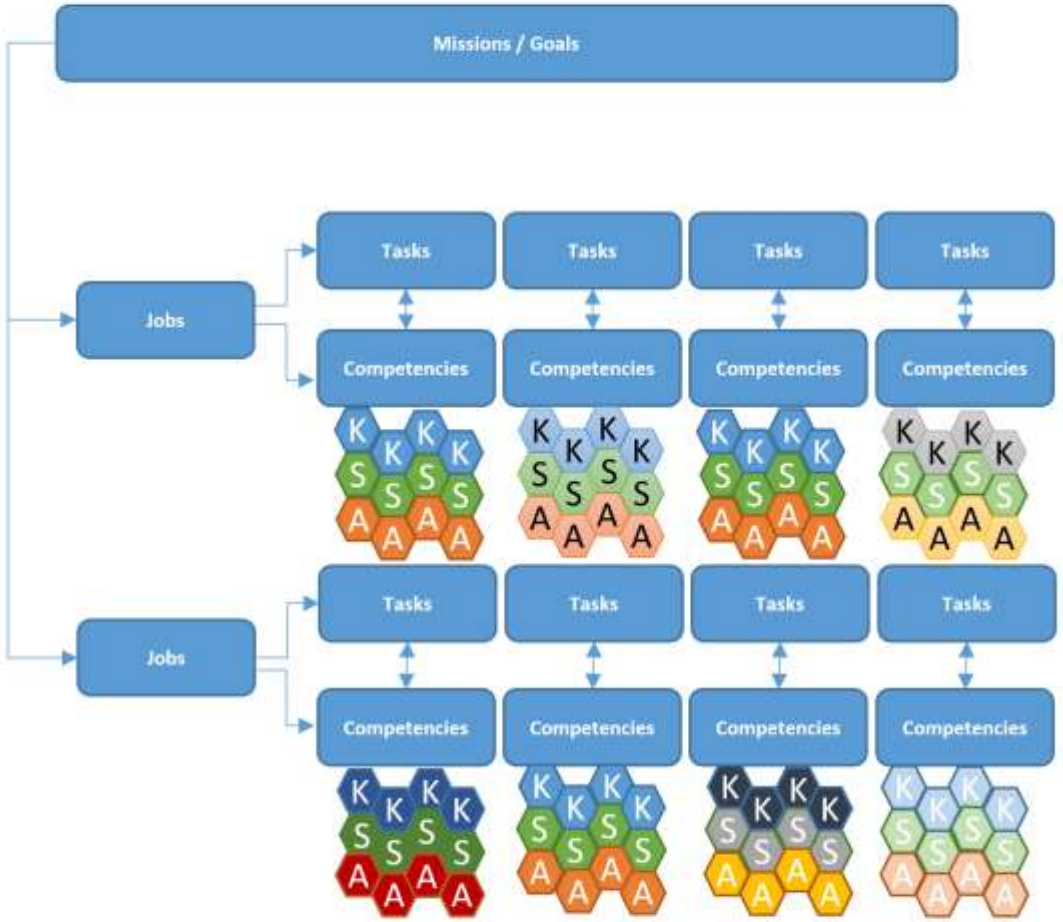
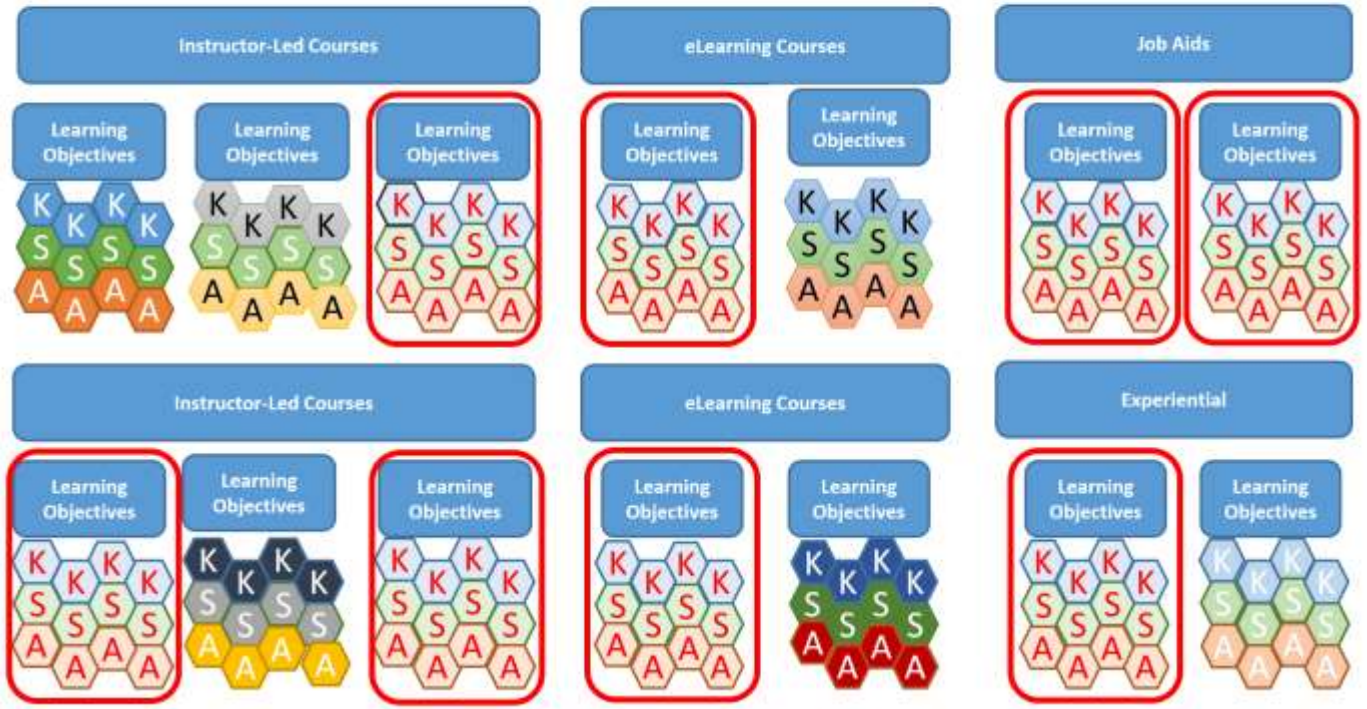
# OPERATIONAL REQUIREMENTS




# TRAINING ACTIVITIES




Effectiveness
Costs/Resources
Time to Competency

**Training Activities That Do Not Address Operational Requirements**

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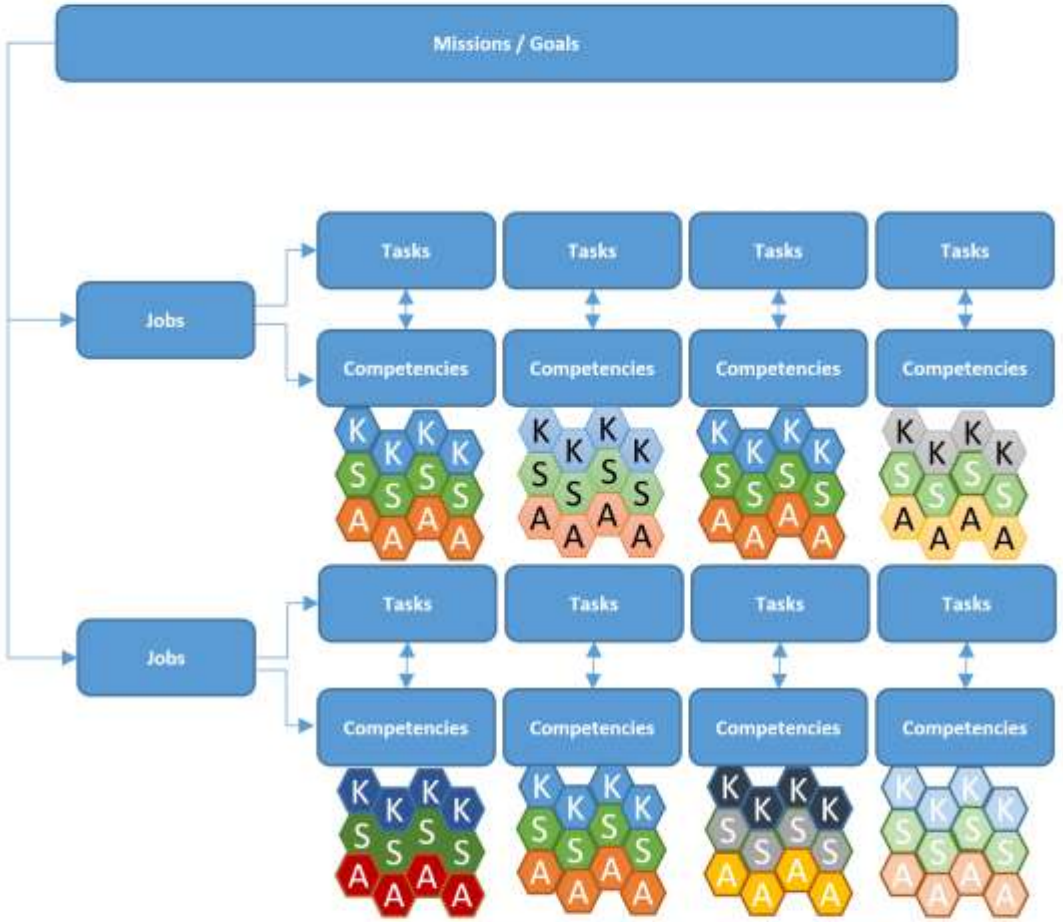
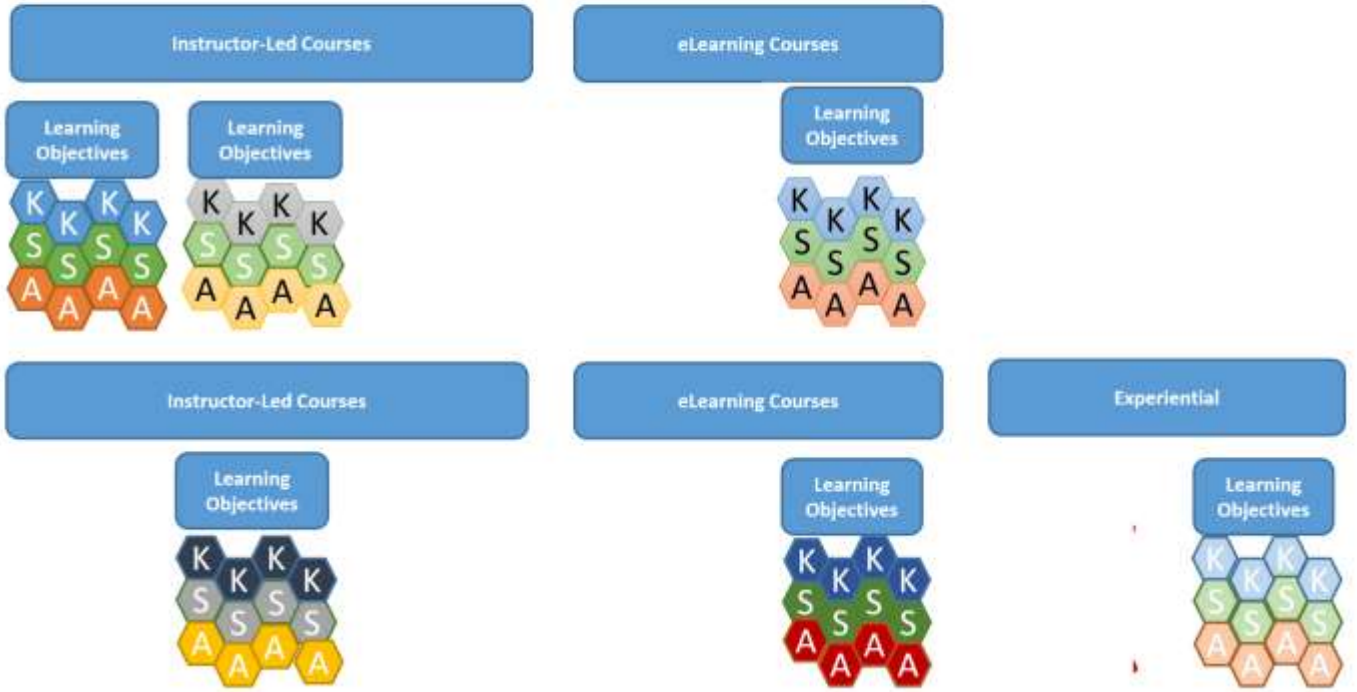
# OPERATIONAL REQUIREMENTS

# TRAINING ACTIVITIES

Effectiveness
Costs/Resources
Time to Competency




**Eliminate Unwarranted Training**

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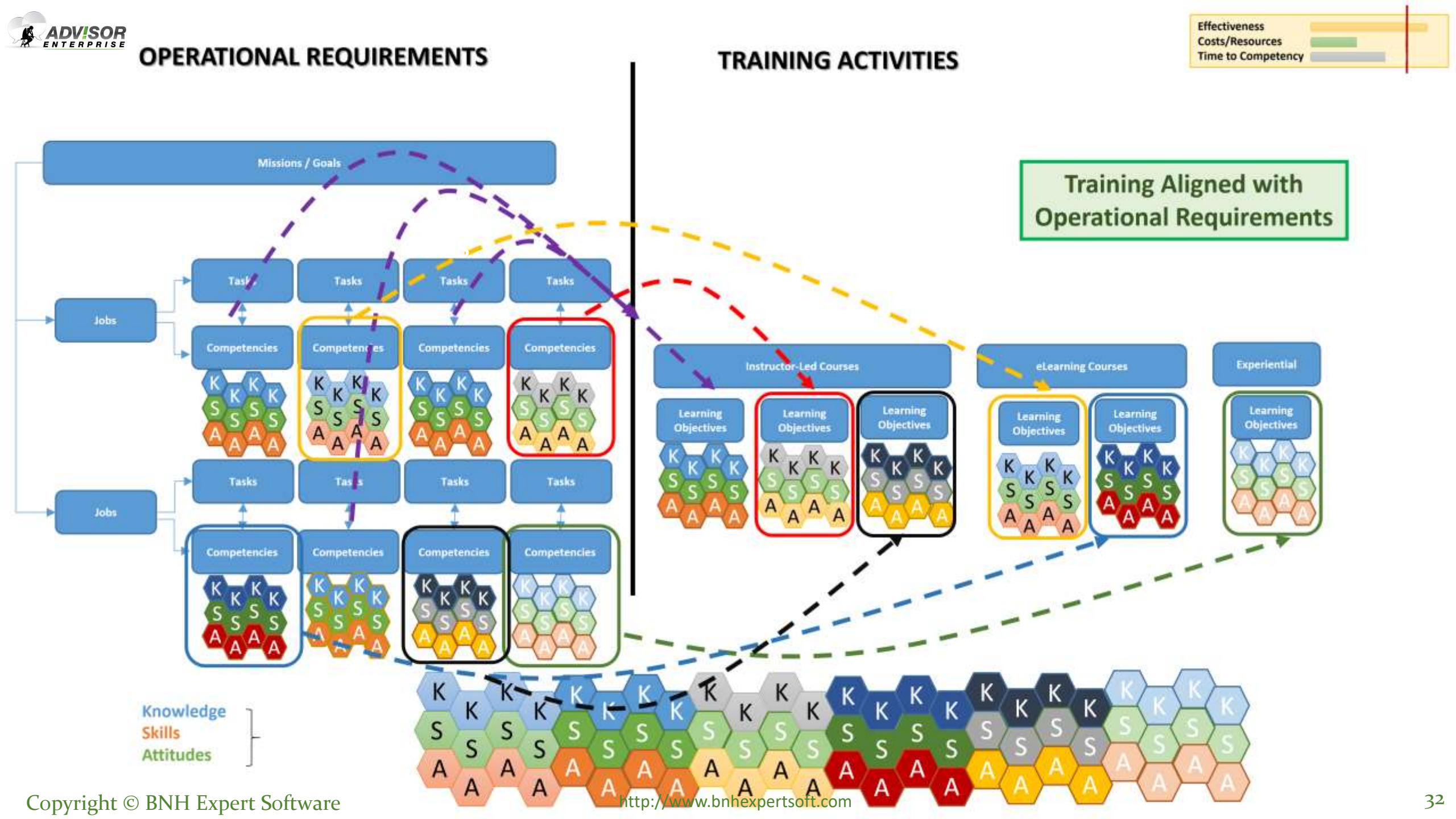


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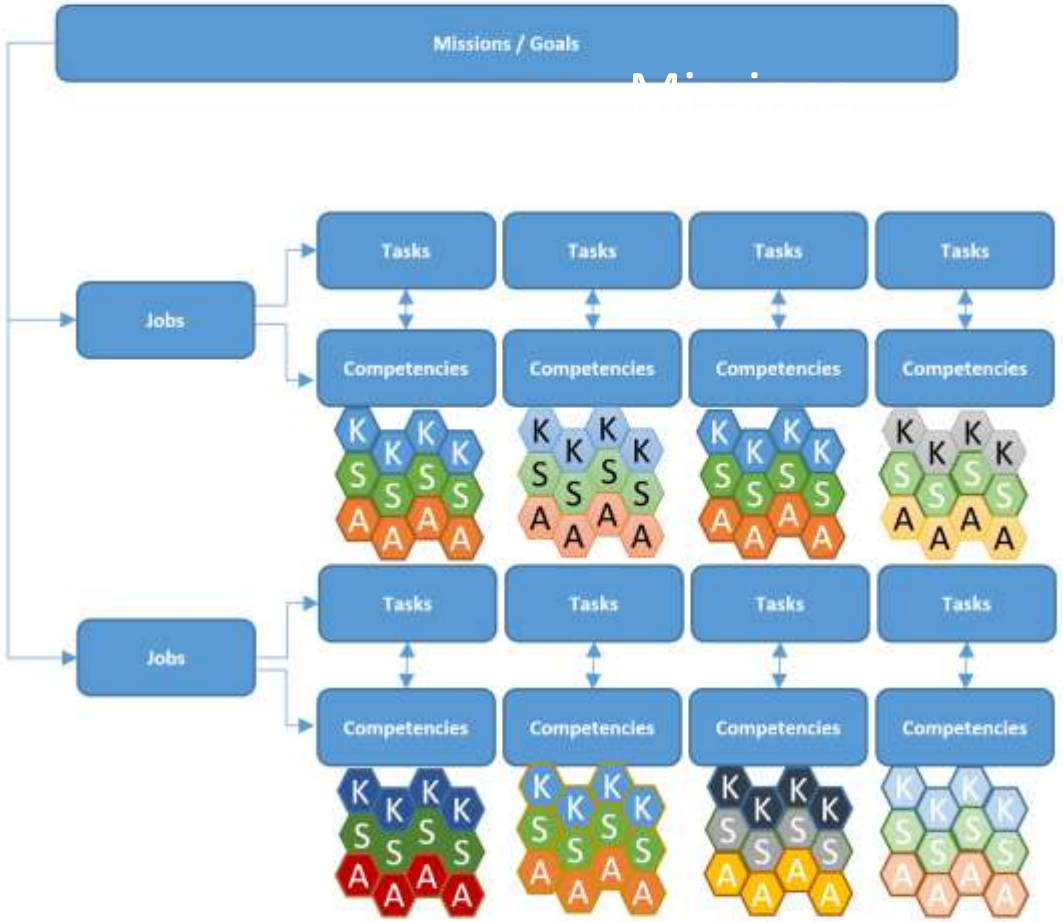
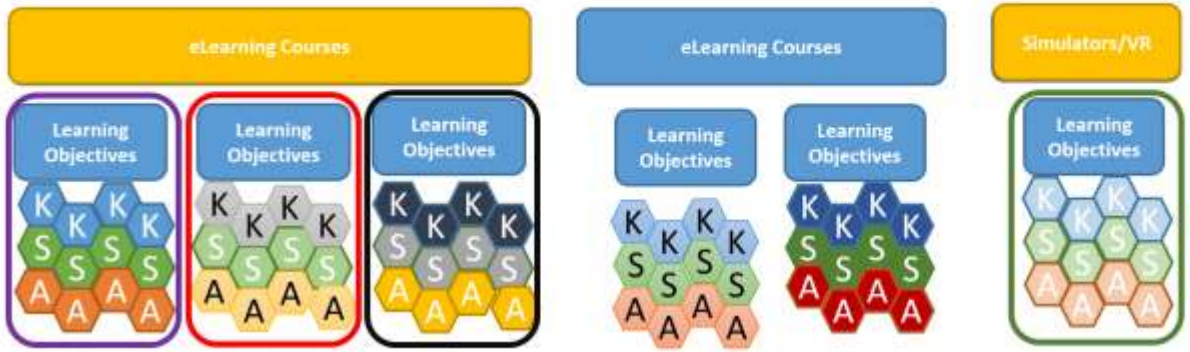
Effectiveness
Costs/Resources
Time to Competency

## OPERATIONAL REQUIREMENTS




## TRAINING ACTIVITIES

**Leverage Training Technology**




Knowledge
Skills
Attitudes

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# Benefit: Preserve Training Efficiency

- Present key performance indicators in dashboard format to continually monitor health of training organization.

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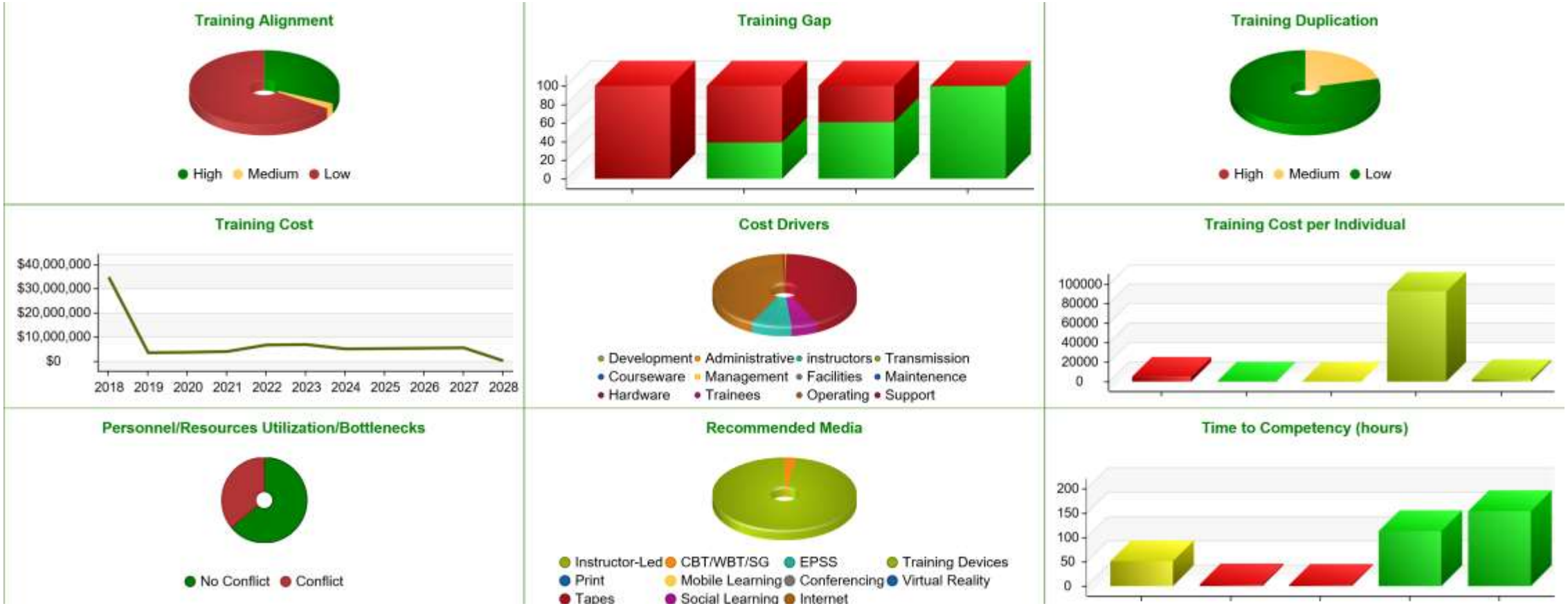
# Leverage Analytics …

## Counting what Counts …

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# Identify Training Creep (Unwarranted Training)

## Identify Training Creep Report

**for Recommended Delivery Option**

Identifies Training Activities with minimal or no value by mapping the Learning Objectives in each course to the KSAs, Objectives and Tasks requirements of the Target Audience (Job/Position).

Period: Jan 1, 2017 to Dec 31, 2017
Prepared by: BNH Director
Date: September 2017

| Course Title | Reference Code | # of Trainees | Client | Target Audience | Group Title | Frequency | Delivery Media | Length (hrs) | Alignment |
|---|---|---|---|---|---|---|---|---|---|
| Decisiveness | L01 | 100 | ABC Corp | Online Managers | Knowledge | 16 | CBT | 14 | High |
| Conflict Resolution | L02 | 50 | ABC Corp | Online Managers | Knowledge | 8 | ILT | 4 | Medium |
| Leveraging Diversity | L06 | 40 | ABC Corp | Online Managers | Knowledge | 6 | ILT | 4 | Low |
| Team Building | L88 | 20 | ABC Corp | Online Managers | Knowledge | 3 | ILT | 6 | Low |
| Change Management | G04 | 35 | ABC Corp | Online Managers | Knowledge | 5 | ILT | 4 | Low |
| Total | | 245 | | | | | | 32 | |

**Decisiveness**

| Learning Objective | Length | Knowledge/Skills | Performance Objective | Tasks | Job Title |
|---|---|---|---|---|---|
| Decisiveness overview | 1 | | | | Online Managers |
| Describe key elements of a goal | 1 | Describe key elements of a goal | Set Goals | Set Goals | Online Managers |
| Validate the viability of goals | 1 | Validate the viability of goals | Set Goals | Set Goals | Online Managers |
| Write clear and concise goals | 1.5 | Write clear and concise goals | Set Goals | Set Goals | Online Managers |
| Implement incentive system | 1 | Implement incentive system | Motivate Employees | Motivate Employees | Online Managers |
| Measure employees engagement | 1 | Measure employees engagement | Motivate Employees | Motivate Employees | Online Managers |
| Write clear and concise core values | 1 | Write clear and concise core values | Affirm Values | Affirm Values | Online Managers |
| Communicate importance of core values | 1 | Communicate importance of core values | Affirm Values | Affirm Values | Online Managers |
| Select appropriate venue for prioritizing goals | 1 | Select appropriate venue for prioritizing goals | Prioritize Goals | Prioritize Goals | Online Managers |
| Prioritize goals | 1 | Prioritize goals | Prioritize Goals | Prioritize Goals | Online Managers |
| Implement design | 0.5 | Implement design | Design Processes | Design Processes | Online Managers |
| Describe various implementation procedures | 0.25 | Describe various implementation procedures | Set Course of Action | Set Course of Action | Online Managers |
| Select appropriate implementation procedure | 0.25 | Select appropriate implementation procedure | Set Course of Action | Set Course of Action | Online Managers |
| Implement procedures | 0.5 | Implement procedures | Set Course of Action | Set Course of Action | Online Managers |
| Describe key steps in project management | 0.25 | | | | Online M |
| Develop project management plan | 0.5 | | | | Online |
| Monitor progress | 0.25 | | | | Online |
| Describe various conflict resolution procedures | 0.25 | Describe various conflict resolution procedures | Resolve Conflicts | Resolve Conflicts | Online |
| Select appropriate procedures | 0.25 | Select appropriate procedures | Resolve Conflicts | Resolve Conflicts | Online |
| Implement conflict resolution procedures | 0.25 | Implement conflict resolution procedures | Resolve Conflicts | Resolve Conflicts | Online |
| Validate outcomes | 0.25 | Validate outcomes | Resolve Conflicts | Resolve Conflicts | Online |

Learning Objectives that do not support a specific KSA, Objective, Task or Job may not be required – i.e., add value.

**Conflict Resolution**

| Learning Objective | Length | Knowledge/Skills | Performance Objective | Tasks | Job T |
|---|---|---|---|---|---|
| Conflict Resolution overview | 1 | | | | Online |
| Describe various implementation procedures | 0.25 | Describe various implementation procedures | Set Course of Action | Set Course of Action | Online |
| Select appropriate implementation procedure | 0.25 | Select appropriate implementation procedure | Set Course of Action | Set Course of Action | Online |
| Implement procedures | 0.5 | Implement procedures | Set Course of Action | Set Course of Action | Online Managers |
| Describe key steps in project management | 0.25 | | | | Online Managers |
| Develop project management plan | 0.5 | | | | Online Managers |
| Monitor progress | 0.25 | | | | Online Managers |
| Describe various conflict resolution procedures | 0.25 | Describe various conflict resolution procedures | Resolve Conflicts | Resolve Conflicts | Online Managers |
| Select appropriate procedures | 0.25 | Select appropriate procedures | Resolve Conflicts | Resolve Conflicts | Online Managers |
| Implement conflict resolution procedures | 0.25 | Implement conflict resolution procedures | Resolve Conflicts | Resolve Conflicts | Online Managers |

**US Dept. of Treasury**
**Reduced credit training from 15 to 12 months.**

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# Identify Training Gaps

**In-service Support of Navy Reserve Ships. The mystery of the broken pumps!**

## Align Training with Needs Report

Identifies Training Gaps by mapping the KSAs needed to perform each Task and Sub Task to a specific Learning Objective in a Course.

Project: MRAP
Prepared by: BNH Director
Date: September 2017

| Job | Task | Sub Task | Task Training Requirement | Task Training Priority | Performance Objective | Knowledge/ Skills | Learning Objective | Lesson | Course |
|---|---|---|---|---|---|---|---|---|---|
| | Maintain the Leo 2 A4 CAN MBT and ancillary equipment. | Identify Leo 2 A4 CAN exterior components. | Train | High | Identify Leo 2 A4 CAN exterior components. | Safety points related to exterior components. | Describe safety concerns | Lesson 1 | Driver MRAP |
| | | | | | | Description, characteristics and performance of the Leo 2 A4 CAN MBT. | Description, characteristics and performance of the Leo 2 | Lesson 1 | Driver MRAP |
| | | | | | | Back deck lifting device bracket. | Back deck lifting device bracket. | Lesson 1 | Driver MRAP |
| | | | | | | Back deck lifting device lower mount with hopper bin. | Back deck lifting device lower mount with hopper bin. | Lesson 1 | Driver MRAP |
| | | | | | | Cooling air intake grills. | Cooling air intake grills. | Lesson 2 | Driver MRAP |
| | | | | | | Tow cable mounting brackets. | Tow cable mounting brackets. | Lesson 2 | Driver MRAP |
| | | | | | | Various mounting bracket for pioneer tools, large track tools, and fuel transfer hose. | KSAs not addressed by a specific LO may indicate a gap. | | |
| | | | | | | Description, servicing and storage of tools. | Describe servicing and storage of tools | Lesson 2 | Driver MRAP |
| | | Operate the main components of the fighting compartment. | Train | High | Operate the main components of the fighting compartment. | Perform safety procedures on the Leo 2 A4 CAN MBT turret. | Perform safety procedures on the Leo 2 A4 CAN MBT turret. | Lesson 3 | Driver MRAP |
| | | | | | | Safety during instruction. | Describe safety procedures. | Lesson 3 | Driver MRAP |
| | | | | | | Turret components left loaders side. | Describe Turret components left loaders side. | Lesson 3 | Driver MRAP |
| | | | | | | Turret components (roof, front, floor and rear). | Describe Turret components (roof, front, floor and rear). | Lesson 4 | Driver MRAP |
| | | | | | | Crew commanders hatch. | Describe crew commanders hatch. | Lesson 4 | Driver MRAP |
| | | | | | | Turret components-gunners station. | Describe Turret components-gunners station. | Lesson 4 | Driver MRAP |
| | | Operate the components of the driver compartment. | Train | High | Operate the components of the driver compartment. | Safety points related to driver compartment. | Describe safety points related to driver compartment. | Lesson 6 | Driver MRAP |
| | | | | | | Components of the drivers compartment. | Describe components of the drivers compartment. | Lesson 6 | Driver MRAP |
| | | Maintain the lubrication system. | Train | High | Maintain the lubrication system. | Lubrication system description and components. | Describe lubrication system and components. | Lesson 6 | Driver MRAP |
| | | Operate the heater and coolant system. | Train | High | Operate the heater and coolant system. | Heater and coolant ancillary equipment operation. | KSAs not addressed by a specific LO may indicate a gap. | | |
| | | | | | | Heater and coolant system maintenance. | Describe heater and coolant system maintenance requirements. | Lesson 7 | Driver MRAP |
| | | | | | | Operating the heating system. | Operate the heating system to include, starting and switching off the heater. | Lesson 7 | Driver MRAP |
| | | Maintain the fuel system. | Train | High | Maintain the fuel system. | Safety points related to fuel system. | Describe safety considerations to fuel system. | Lesson 7 | Driver MRAP |
| | | | | | | Fuel system components. | Outline fuel system components. | Lesson 7 | Driver MRAP |
| | | | | | | Fighting compartment. | Describe fighting compartment. | Lesson 8 | Driver MRAP |
| | | | | | | Hull underside: fuel drain access cover. | Describe the underside of the hull and how to access fuel drain cover. | Lesson 8 | Driver MRAP |
| | | | | | | Driver compartment. | Describe driver compartment. | Lesson 8 | Driver MRAP |
| | | | | | | Perform refuelling procedures. | Perform refuelling procedures. | Lesson 8 | Driver MRAP |
| | | | | | | Fuel system maintenance. | Maintain fuel system. | Lesson 9 | Driver MRAP |
| | | Maintain the electrical system. | Train | High | Maintain the electrical system. | Safety points related to electrical system. | KSAs not addressed by a specific LO may indicate a gap. | | |
| | | | | | | Electrical system components. | Describe the electrical system components. | Lesson 9 | Driver MRAP |
| | | | | | | Servicing electrical system | Service the electrical system | Lesson 9 | Driver MRAP |
| | | Maintain the combustion air system. | Train | High | Maintain the combustion air system. | Safety points (compressed air dangers). | Describe the safety concerns with compressed air. | Lesson 9 | Driver MRAP |
| | | | | | | Safety equipment (PPE). | Describe safety equipment (PPE). | Lesson 10 | Driver MRAP |
| | | | | | | Description of the combustion system and its components. | Describe the combustion system and its components. | Lesson 10 | Driver MRAP |
| | | | | | | Maintaining the combustion system. | KSAs not addressed by a specific LO may indicate a gap. | | |
| | | Maintain the fire fighting system. | Train | High | Maintain the fire fighting system. | Fire fighting ancillary equipment operation. | Operate the fire fighting ancillary equipment. | Lesson 10 | Driver MRAP |
| | | | | | | Operation and drivers, reaction to a fire. | Outline drivers procedures to a fire. | Lesson 10 | Driver MRAP |
| | | | | | | Servicing fire fighting system. | Service the fire fighting system. | Lesson 10 | Driver MRAP |

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# Uncover Training Duplication

Training Duplication

● High ● Medium ● Low

| | | AVS Maintainer Course | | | | ACS Maintainer Course | | | | AVN Maintainer Course | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Knowledge/Skills | Learning Outcome | Learning Objective | Length (hrs) | Lesson | Job | Learning Objective | Length (hrs) | Lesson | Job | Learning Objective | Length (hrs) | Lesson | Job |
| KSA 1 for A/C - Air Distribution: 21.21.01 | Knowledge | LO 1 AVS for A/C - Air Distribution: 21.21.01 | 1.0 | Lesson 1 | AVS Maintainer | | | | | LO 1 AVN for A/C - Air Distribution: 21.21.01 | 1.0 | Lesson 1 | AVN Maintainer |
| KSA 2 for A/C - Air Distribution: 21.21.01 | Knowledge | LO 2 AVS for A/C - Air Distribution: 21.21.01 | 2.0 | Lesson 1 | AVS Maintainer | | | | | LO 2 AVN for A/C - Air Distribution: 21.21.01 | 2.0 | Lesson 1 | AVN Maintainer |
| KSA 3 for A/C - Air Distribution: 21.21.01 | Knowledge | LO 3 AVS for A/C - Air Distribution: 21.21.01 | 3.0 | Lesson 1 | AVS Maintainer | | | | | LO 3 AVN for A/C - Air Distribution: 21.21.01 | 3.0 | Lesson 1 | AVN Maintainer |
| KSA 7 for A/C - Air Distribution: 21.21.03 | Psychomotor Skill | LO 7 AVS for A/C - Air Distribution: 21.21.03 | 7.0 | Lesson 2 | AVS Maintainer | LO 7 ACS for A/C - Air Distribution: 21.21.03 | 7.0 | Lesson 2 | ACS Maintainer | LO 7 AVN for A/C - Air Distribution: 21.21.03 | 7.0 | Lesson 3 | AVN Maintainer |
| KSA 8 for A/C - Air Distribution: 21.21.03 | Psychomotor Skill | LO 8 AVS for A/C - Air Distribution: 21.21.03 | 8.0 | Lesson 2 | AVS Maintainer | LO 8 ACS for A/C - Air Distribution: 21.21.03 | 8.0 | Lesson 2 | ACS Maintainer | LO 8 AVN for A/C - Air Distribution: 21.21.03 | 8.0 | Lesson 3 | AVN Maintainer |
| KSA 9 for A/C - Air Distribution: 21.21.03 | Psychomotor Skill | LO 9 AVS for A/C - Air Distribution: 21.21.03 | 9.0 | Lesson 2 | AVS Maintainer | LO 9 ACS for A/C - Air Distribution: 21.21.03 | 9.0 | Lesson 2 | ACS Maintainer | LO 9 AVN for A/C - Air Distribution: 21.21.03 | 9.0 | Lesson 3 | AVN Maintainer |
| KSA 10 for A/C - Air Distribution: 21.21.04 | Attitude | LO 10 AVS for A/C - Air Distribution: 21.21.04 | 10.0 | Lesson 3 | AVS Maintainer | LO 10 ACS for A/C - Air Distribution: 21.21.04 | 10.0 | Lesson 3 | ACS Maintainer | LO 10 AVN for A/C - Air Distribution: 21.21.04 | 10.0 | Lesson 4 | AVN Maintainer |
| KSA 11 for A/C - Air Distribution: 21.21.04 | Attitude | LO 11 AVS for A/C - Air Distribution: 21.21.04 | 11.0 | Lesson 3 | AVS Maintainer | LO 11 ACS for A/C - Air Distribution: 21.21.04 | 11.0 | Lesson 3 | ACS Maintainer | LO 11 AVN for A/C - Air Distribution: 21.21.04 | 11.0 | Lesson 4 | AVN Maintainer |
| KSA 12 for A/C - Air Distribution: 21.21.04 | Attitude | LO 12 AVS for A/C - Air Distribution: 21.21.04 | 12.0 | Lesson 3 | AVS Maintainer | LO 12 ACS for A/C - Air Distribution: 21.21.04 | 12.0 | Lesson 3 | ACS Maintainer | LO 12 AVN for A/C - Air Distribution: 21.21.04 | 12.0 | Lesson 4 | AVN Maintainer |
| KSA 4 for A/C - Air Distribution: 21.21.02 | Knowledge | | | | | LO 4 ACS A/C - Air Distribution: 21.21.02 | 4.0 | Lesson 1 | ACS Maintainer | LO 4 AVN for A/C - Air Distribution: 21.21.02 | 4.0 | Lesson 2 | AVN Maintainer |
| KSA 5 for A/C - Air Distribution: 21 | | | | | | LO for ACS - Air Distribution: 21.21.02 | 5.0 | Lesson 1 | ACS Maintainer | LO 5 AVN for A/C - Air Distribution: 21.21.02 | 5.0 | Lesson 2 | AVN Maintainer |
| KSA 6 for A/C - Air Distribution: 21 | | | | | | LO 6 ACS A/C - Air Distribution: 21.21.02 | 6.0 | Lesson 1 | ACS Maintainer | LO 6 AVN for A/C - Air Distribution: 21.21.02 | 6.0 | Lesson 2 | AVN Maintainer |

**CDN Air Force ATTR Identified 275 hours of common training between ACS, AVN, AWS & AVS**

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# Forecast Budget, Personnel & Resources

## Forecast Training Budget

Period: 2017-01-01 to 2017-01-31
Prepared by: BNH Director
Date: September 2017

**Total Direct & Indirect Costs for Requested Time Period**

| Course Title | Delivery Option | Length [hours] | Development Costs |
|---|---|---|---|
| Leadership: Decisiveness | CBT | 4 | $30,000 |
| Leadership: Developing Others | Webex | 8 | $4,000 |
| Leadership: Influencing/Negotiating | ILT | 8 | $4,000 |
| Leadership: Leveraging Diversity | CBT | 4 | $21,000 |
| Leadership: Team Building | CBT | 4 | $21,000 |
| General: Accountability | CBT | 4 | $2,000 |
| General: Change Management | ILT | 4 | $2,000 |
| General: Communication | CBT | 4 | $2,000 |
| **Total** | | **40** | **$86,000** |

## Forecast Personnel Requirements Report

## Forecast Resources Requirements Report

**Includes Direct & Indirect Costs for Recommended Delivery Option**

Period: Jan 1, 2017 to Dec 31, 2017
Prepared by: BNH Director
Date: September 2017

Forecasts the type and number of classrooms, facilities and equipment needed to support training courses/activities over specified time period.

| Resources | Time [hours] | Utilization Rate | Required # |
|---|---|---|---|
| Classroom | 330 | 16.50% | 0.17 |
| Computer Lab | 376 | 18.80% | 0.19 |

**Classroom**

| Course | Group Title | Delivery Option | Time | Utilization | Required |
|---|---|---|---|---|---|
| Decisiveness Intro | Knowledge | ILT | 238 | 11.90% | 0.12 |
| Influencing/Negotiating | Knowledge | ILT | 64 | 3.20% | 0.03 |
| Team Building Intro | Knowledge | ILT | 12 | 0.60% | 0.01 |
| Team Building Advanced | Knowledge | ILT | 16 | 0.80% | 0.01 |
| **Total** | | | **330** | **16.50%** | **0.17** |

**Computer Lab**

| Course | Group Title | Delivery Option | Time | Utilization | Required |
|---|---|---|---|---|---|
| Decisiveness Advanced | Knowledge | Webex | 119 | 5.95% | 0.06 |
| Developing Others | Knowledge | Webex | 80 | 4.00% | 0.04 |
| Leveraging Diversity Intro | Knowledge | CBT | 22 | 1.10% | 0.01 |
| Leveraging Diversity Advanced | Knowledge | CBT | 19 | 0.95% | 0.01 |
| Accountability Intro | Knowledge | Webex | 22 | 1.10% | 0.01 |
| Accountability Advanced | Knowledge | CBT | 19 | 0.95% | 0.01 |
| Change Management Intro | Knowledge | Webex | 16 | 0.80% | 0.01 |
| Change Management Advanced | Knowledge | CBT | 16 | 0.80% | 0.01 |
| Communication Intro | Knowledge | CBT | 33 | 1.65% | 0.02 |
| Communication Advanced | Knowledge | CBT | 30 | 1.50% | 0.01 |
| **Total** | | | **376** | **18.80%** | **0.19** |

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# Uncover Cost Drivers

## Forecast Training Budget Report

Period: 2017-01-01 to 2017-01-31
Prepared by: BNH Director
Date: September 2017

Forecasts direct and indirect costs needed to develop, deliver, administer, manage, maintain and support training courses/activities over specified time period.

**Total Direct & Indirect Costs for Requested Time Period**

| Course Title | Delivery Option | Length [hours] | Development Costs | Hardware Costs | Instructors Costs | Facilities Costs | Total |
|---|---|---|---|---|---|---|---|
| Leadership: Decisiveness | CBT | 4 | $30,000 | $0 | $4,089 | $421 | **$34,510** |
| Leadership: Developing Others | Webex | 8 | $4,000 | $0 | $4,780 | $0 | **$8,780** |
| Leadership: Influencing/Negotiating | ILT | 8 | $4,000 | $0 | $3,730 | $192 | **$7,922** |
| Leadership: Leveraging Diversity | CBT | 4 | $21,000 | $0 | $170 | $134 | **$21,304** |
| Leadership: Team Building | CBT | 4 | $21,000 | $0 | $47 | $50 | **$21,097** |
| General: Accountability | CBT | 4 | $2,000 | $0 | $1,368 | $192 | **$3,560** |
| General: Change Management | ILT | 4 | $2,000 | $0 | $1,212 | $72 | **$3,284** |
| General: Communication | CBT | 4 | $2,000 | $0 | $2,052 | $288 | **$4,340** |
| **Total** | | **40** | **$86,000** | **$0** | **$17,448** | **$1,349** | **$104,797** |

**CDN Air Force FPT Maintenance of infrastructure accounted for 55% of budget.**

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# Compute Training Cost per Individual

## Forecast Training Costs per Individual Report

**Parameters:** Courses
January 01, 2017 to December 31, 2017

**Prepared by:** BNH Director

**Date:** September 2017

**Delivery Option:** User Recommended

Forecasts the costs of developing specific skills/ competencies within a specific time period. Compile and compute direct and indirect costs per trainee from relevant training courses/activities.

**Pilot Training. How should we charge?**

**French as 2nd Language Training. Centers of Excellence …**

| Course Title | Direct Costs per Trainee | Indirect Costs per Trainee | Total Costs per Trainee |
|---|---|---|---|
| Accountability | $3 | $25 | $28 |
| Change Management | $4 | $107 | $111 |
| Communication | $0 | $162 | $162 |
| Decisiveness | $0 | $198 | $198 |
| Influencing/Negotiating | $13 | $95 | $108 |
| Leveraging Diversity | $35 | $49 | $84 |
| Customer Service | $14 | $28 | $42 |
| Team Building | $13 | $40 | $53 |
| **Total:** | **$82** | **$704** | **$786** |

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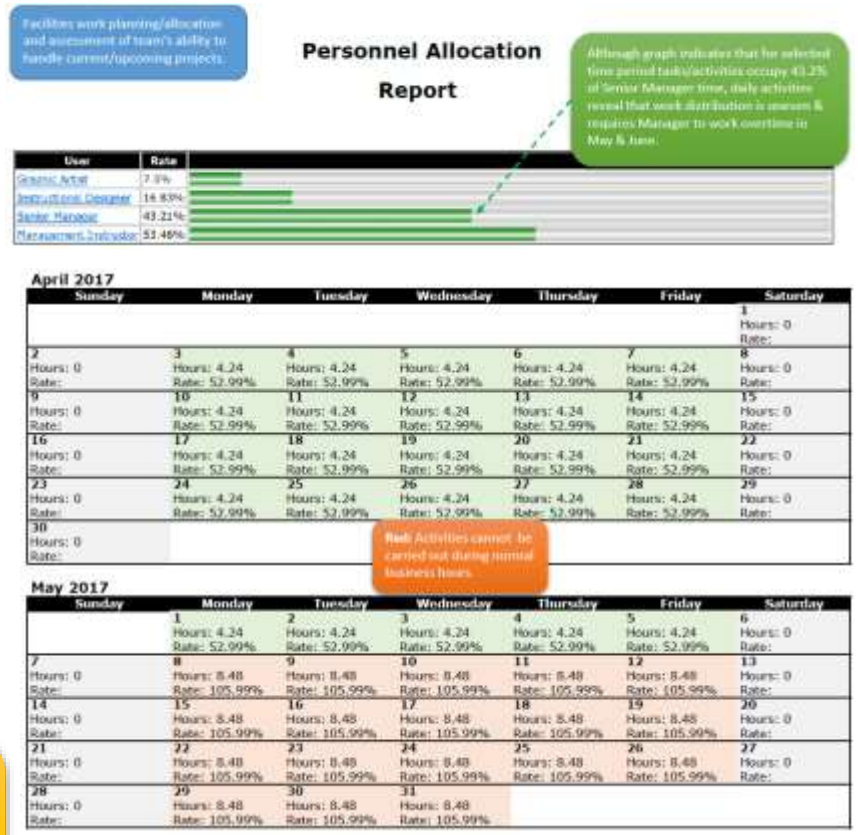
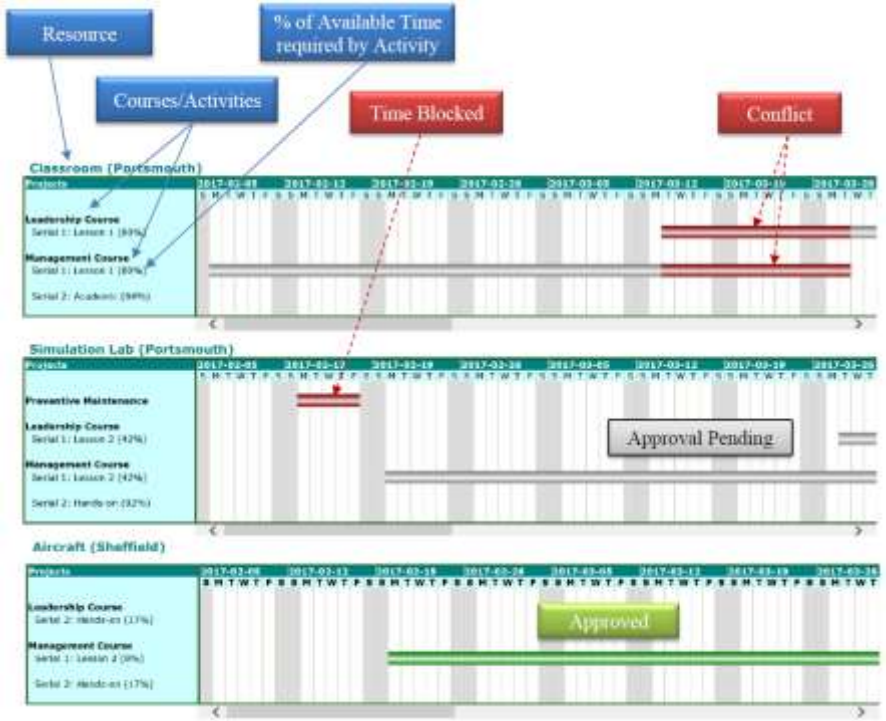
# Identify Additional Capacity & Bottlenecks

**Personnel/Resources Utilization/Bottlenecks**

● No Conflict ● Conflict




**Canadian Forces College. Increasing throughput from 88 to 390 Officers!**

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# Identify Viable & Efficient Delivery Options

**Analyst Recommendations [Costs over life of course]**

| Course Title | Direct Costs | Indirect Costs | Total Cost | Delivery Options |
|---|---|---|---|---|
| Decisiveness | $0 | $41,751 | $41,751 | Webex |
| Developing Others | $0 | $27,315 | $27,315 | Webex |
| Accountability | $0 | $9,319 | $9,319 | ILT |
| Communication | $0 | $13,699 | $13,699 | CBT |
| Leadership | $0 | $76,363 | $76,363 | Webex |
| Influencing/Negotiating | $0 | $23,612 | $23,612 | ILT |
| Conflict Resolution | $0 | $8,404 | $8,404 | ILT |
| Change Management | $0 | $8,422 | $8,422 | ILT |
| Customer Service | $0 | $8,422 | $8,422 | ILT |
| Leveraging Diversity | $0 | $12,064 | $12,064 | ILT |
| **Total:** | **$0** | **$229,371** | **$229,371** | |

**UK Army Live Fire Review**
**Identified through ADVISOR**
**£140 million in potential savings in 10 years**

**CDN Army LVC TS**
**Identified $49.3 million in potential savings through ADVISOR over 10 years**

**Potential Savings [over life of course]**

| Course Title | Direct Saving | Indirect Saving | Total Saving | ROI |
|---|---|---|---|---|
| Decisiveness | $558,333 | -$1,785 | $556,548 | 18.60% |
| Developing Others | $212,500 | $1,200 | $213,700 | 17.73% |
| Accountability | $0 | $12,975 | $12,975 | 11.64% |
| Communication | $0 | $9,242 | $9,242 | 8.06% |
| Leadership | $0 | $3,570 | $3,570 | 0.89% |
| Influencing/Negotiating | $0 | $0 | $0 | 0.00% |
| Conflict Resolution | $0 | $0 | $0 | 0.00% |
| Change Management | $0 | $0 | $0 | 0.00% |
| Customer Service | $0 | $0 | $0 | 0.00% |
| Leveraging Diversity | $0 | $0 | $0 | 0.00% |
| **Total:** | **$770,833** | **$25,202** | **$796,035** | |

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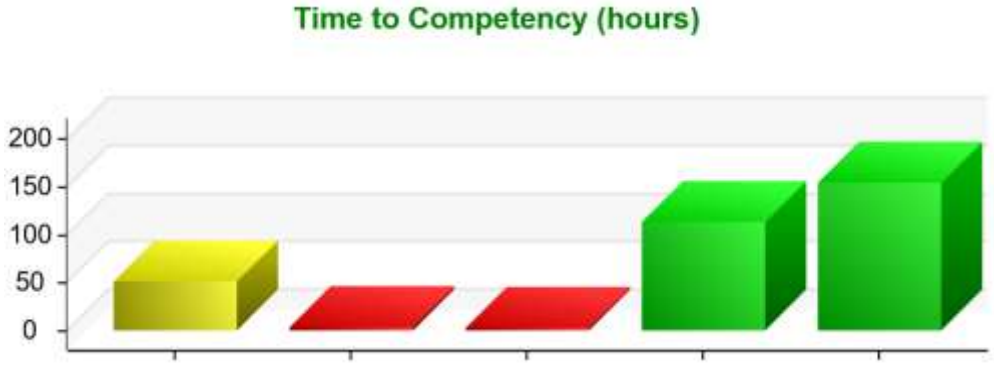
# Compute Time to Competency per Job/Role




**Reduce time needed to detect IED explosives during war.**

## Training Requirements for Each Job Report

Client: ABC Corp
Prepared by: BNH Director
Date: September 2017

Identifies Training Courses/Activities that each Job/Position is required to complete - including Media & Length.

**Online Manager**

| Course Title | Reference Code | Group | Delivery Media | Length |
|---|---|---|---|---|
| Leadership: Decisiveness Intro | L01 | Knowledge | CBT | 4 |
| Leadership: Leveraging Diversity Intro | L05 | Knowledge | CBT | 4 |
| Leadership: Team Building Intro | L07 | Knowledge | Webex | 4 |
| General: Accountability Intro | G01 | Knowledge | Webex | 4 |
| General: Change Management Intro | G03 | Knowledge | ILT | 4 |
| General: Communication Intro | G05 | Knowledge | Webex | 4 |
| **Total** | | | | **24** |

**Supervisor**

| Course Title | Reference Code | Group | Delivery Media | Length |
|---|---|---|---|---|
| Leadership: Developing Others | L03 | Knowledge | ILT | 8 |
| Leadership: Influencing/Negotiating | L04 | Knowledge | ILT | 8 |
| Leadership: Decisiveness Advanced | L02 | Knowledge | ILT | 4 |
| Leadership: Team Building Advanced | L08 | Knowledge | ILT | 4 |
| General: Accountability Advanced | G02 | Knowledge | ILT | 4 |
| General: Change Management Advanced | G04 | Knowledge | ILT | 4 |
| General: Communication Advanced | G06 | Knowledge | ILT | 4 |
| **Total** | | | | **36** |

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# Capture/Monitor Trends …

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# Key Takeaway …

- Why should readiness be assessed at the end! When far better results can be achieved by good planning at the start and validation at the end.

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# Final Note

**Take the time to build a model, so you are ready when the time comes for change.**

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# Training Management System

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# Questions

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