Predictors of Police Academy Performance

Michael G. Aamodt
Radford University
Department of Psychology
Radford, VA 24142-6946
(540) 831-5513
maamodt@runet.edu

William Flink
Central Shenandoah Regional Criminal Justice Training Center
Goals: Conduct a meta-analysis and collect new data to:

- Study the academy as a predictor of on-the-job performance
- Identify predictors of academy performance
- Beg for more data
Literature Search

• **Time Scope**
  – Hard search from 1970
  – Soft search prior to 1970

• **Location of Studies**
  – all published articles
  – all available dissertations and theses
  – “handy” conference presentations

• **Sources**
  – Computer literature searches
  – Bibliographies from articles, dissertations
  – Other stuff we knew about
Criteria for Studies to be Included

- Empirical
- Had data that could be converted to a correlation
- Reported a complete set of validity coefficients
- Were accurate or could be reanalyzed
Concerns

• Criteria
  – Academy grades
  – Instructor ratings
  – Graduation
  – Peer ratings

• Academy Differences
  – length
  – rigor

• Accuracy and completeness of study data
The Academy Predicts Future Performance

<table>
<thead>
<tr>
<th>Criterion</th>
<th>K</th>
<th>N</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTO</td>
<td>6</td>
<td>1,568</td>
<td>.26*</td>
</tr>
<tr>
<td>Patrol ratings</td>
<td>15</td>
<td>2,742</td>
<td>.21*</td>
</tr>
<tr>
<td>Commendations</td>
<td>4</td>
<td>1,125</td>
<td>.02</td>
</tr>
<tr>
<td>Complaints</td>
<td>3</td>
<td>1,840</td>
<td>- .15*</td>
</tr>
<tr>
<td>Discipline problems</td>
<td>3</td>
<td>1,079</td>
<td>- .07</td>
</tr>
<tr>
<td>Absenteeism</td>
<td>2</td>
<td>1,764</td>
<td>- .13*</td>
</tr>
<tr>
<td>Awards</td>
<td>2</td>
<td>2,409</td>
<td>.14*</td>
</tr>
</tbody>
</table>
Predictors of Patrol Performance

<table>
<thead>
<tr>
<th>Predictor</th>
<th>K</th>
<th>N</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTO</td>
<td>6</td>
<td>1,568</td>
<td>.26*</td>
</tr>
<tr>
<td>Prev employ problems</td>
<td>4</td>
<td>988</td>
<td>-.26*</td>
</tr>
<tr>
<td>Academy grades</td>
<td>15</td>
<td>2,742</td>
<td>.21*</td>
</tr>
<tr>
<td>Education</td>
<td>30</td>
<td>8,289</td>
<td>.18*</td>
</tr>
<tr>
<td>Cognitive ability</td>
<td>29</td>
<td>10,442</td>
<td>.15*</td>
</tr>
<tr>
<td>Personality/Clinical</td>
<td>8</td>
<td>1,483</td>
<td>.15*</td>
</tr>
<tr>
<td>Traffic tickets</td>
<td>5</td>
<td>1,193</td>
<td>-.05</td>
</tr>
<tr>
<td>CJ major</td>
<td>8</td>
<td>1,585</td>
<td>-.03</td>
</tr>
<tr>
<td>Military experience</td>
<td>12</td>
<td>3,572</td>
<td>-.02</td>
</tr>
</tbody>
</table>
### What Predicts Academy Performance?

<table>
<thead>
<tr>
<th>Predictor</th>
<th>K</th>
<th>N</th>
<th>Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive ability</td>
<td>30</td>
<td>7,100</td>
<td>.44*</td>
</tr>
<tr>
<td>Education</td>
<td>16</td>
<td>4,015</td>
<td>.28*</td>
</tr>
<tr>
<td>CJ Major</td>
<td>6</td>
<td>976</td>
<td>.01</td>
</tr>
<tr>
<td>Military experience</td>
<td>6</td>
<td>1,676</td>
<td>.01</td>
</tr>
</tbody>
</table>
Personality

- **Types of Tests**
  - Normal (CPI)
  - Psychopathology (MMPI)

- **Interpretations**
  - Individual scale scores
  - Patterns
  - Regression analysis
  - Clinical interpretation

- **Meta-Analysis Groupings**
  - Test
  - Dimension
  - “Big 5”
MMPI Validity
6 studies, 973 subjects

- L: -0.15
- F: -0.13
- K: 0.10
- Hs: -0.09
- D: -0.08
- Hy: 0.02
- Pd: -0.04
Problems With Clinical Interpretation

• Multiple tests/info
• Inclusion of cognitive ability test
  – Test battery .14
  – Battery + CA .32
  – CA alone .44
• Misinterpretation of classification data
Actual Performance

<table>
<thead>
<tr>
<th></th>
<th>Success</th>
<th>Failure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Failure</td>
<td>179</td>
<td>21</td>
</tr>
</tbody>
</table>

% correct prediction $= \frac{8 + 179}{220} = 85\%$

Current success $= \frac{12 + 179}{220} = 87\%$