Using Biodata in a Variety of Occupational Settings

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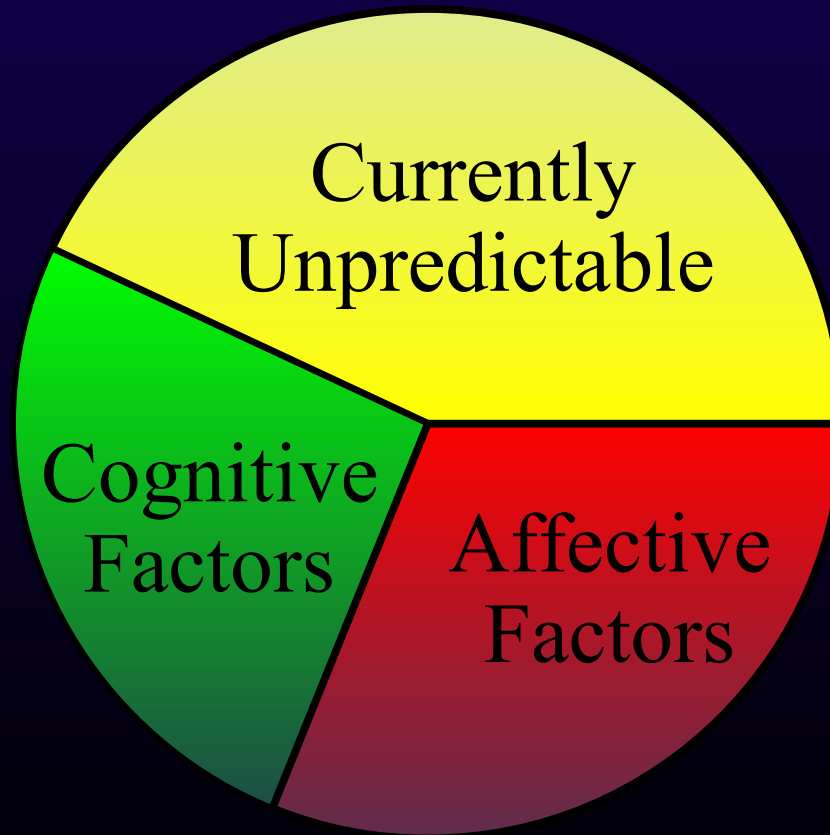
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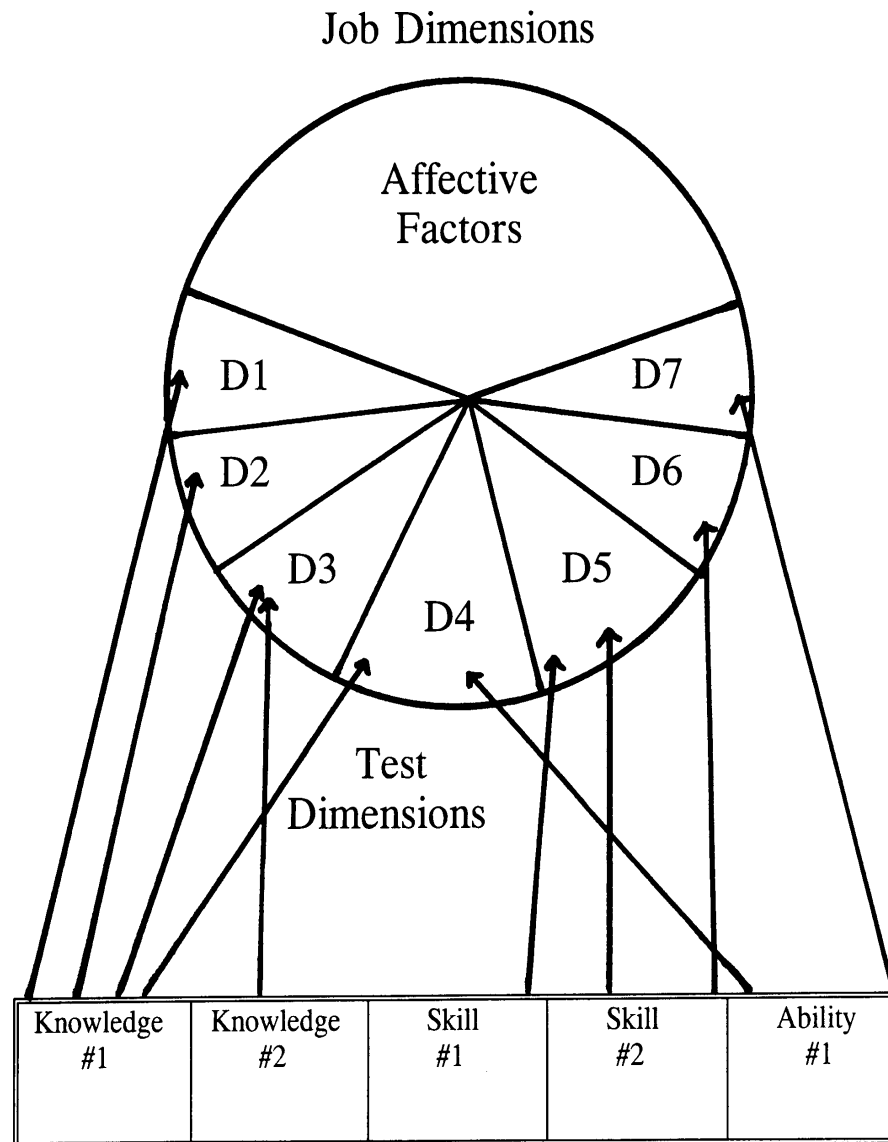
The case for biodata

How would you feel about using a test that:

- Has strong predictive validity

- Taps into critical job areas not assessed by traditional instruments

- Has low adverse impact

- Is easy and inexpensive to administer and score

Cognitive and affective assessment and job success

Cognitive Assessment and Job Success

Job Dimensions

Affective
Factors

D1   D7

D2   D6

D3   D5

D4

Test
Dimensions

Knowledge #1	Knowledge #2	Skill #1	Skill #2	Ability #1

What is a biographical data inventory?

A written test that collects biographical information about candidates including history, interests and preferences related to work and is empirically keyed to job criterion.

Sample biodata question

What has given you the most difficulty in any job that you have had?

A. A supervisor who gave inconsistent direction.

B. Having to deal with too many insignificant details.

C. Disagreements or gossip amongst co-workers.

D. A supervisor who watched over my work too closely.

Item analysis for sample question

What has given you the most difficulty in any job that you have had?

A. A supervisor who gave inconsistent direction.

B. Having to deal with too many insignificant details.

C. Disagreements or gossip amongst co-workers.

D. A supervisor who watched over my work too closely.

	A	B	C	D
Upper	20	10	10	60
Middle	20	40	10	30
Lower	30	50	10	10

Biographical Inventory

Job X

○ (Accountability)

Biodata Item

Developing a biodata instrument

Research design

- Study job; develop criterion measure and test instrument
- Determine sample (typically 400-600)
- Collect data
  - Administer test instrument to research group
  - Administer criterion measure to supervisors
- Divide sample into scoring key group & cross-validation group
- Divide key group into high and low groups (usually upper/lower 27 %)
- Develop scoring key
- Apply scoring key to cross-validation group

Developing a biodata instrument

Item development

- Rational, based on analysis of the job(s)
- Absence of offensive or intrusive content
- Inclusion of preference-oriented items

Summary of biodata projects

Occupational areas

- Clerical

- Social services

- Law enforcement (Police, state trooper)

- Administrative support

- Corrections

- Casino ("front of house" and "back of house")

Summary of biodata projects

Common Criterion Dimensions

- Quantity of work

- Quality of work

- Dependability

- Interpersonal effectiveness

- Planning and organizing

- Communication skills

- Problem solving

- Customer service focus

Sample criterion dimension

Planning and Organizing

Definition: The extent to which the employee is effective in meeting work requirements and deadlines by setting goals and priorities, managing work processes and resources, designing realistic work methods and timetables for goal achievement, and adjusting plans to accommodate changes in circumstances. Includes the ability to be goal oriented, pay attention to detail, and be dependable in the delivery of work products and performance of job tasks.

Benchmark: Demonstrates exceptional planning and organizing skills. Anticipates work needs, sets appropriate priorities, and effectively organizes tasks and materials to meet deadlines and maximize productivity. Proficiently multi-tasks and adjusts schedules and priorities to meet demands; is thorough and pays attention to detail.

Summary of validities and adverse impact ratios

1 = Bio Validity;   2 = Bio A.I. Ratio;   3= Total Test Validity

Study	1	2	3
GLAC Clerical consortium (6 states & cities)	.192	.25	.27
DAPA Clerical consortium (6 jurisdictions)	.261	.36	.41
Social service technician (Longitudinal)	.150	.18	.22
Administrative support (94 classes)	.383	.83	.52
Typists (21 classes)	.197	.76	.24
Corrections Officers	.198	.51	.24
Police Officer exam	.247	.31	.31
Casino Classifications (105 classes)	.198	.12	--

Biodata concerns

Acceptance

- Careful question design
- Clear description of the instrument and its intent in test instructions
- Continuous, pro-active education of user agencies

Biodata concerns

Validation Study Sample Requirements

- Establish consortia
- Accumulate data over time
- Consolidate classes

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