Definitions of Earning Capacity

- Definitions of earning capacity vary semantically
- No universal language, model or method
Models of Earning Capacity

- RAPEL
- Shahnasarian ECAF2
- Boyd & Toppino FVE Method
- Deutsch / Sawyer
- Labor Market Access (LMA)
- Dillman’s Loss of Earning Capacity Model
- McCroskey Vocational Quotient System (MVQS)

Methodological Inconsistency

- Despite published methods, there remains a high level of variability in the final evaluation product of rehabilitation consultants
Research Question

- What are the core variables to be considered in an assessment of vocational earning capacity in a legal-forensic setting?

Research Design Issues

- Inherent difficulty in achieving topical consensus on an issue
- Difficulty rests with problems in group decision making dynamics
- Needed an empirically valid and reliable research method to gain consensus on a topic where consensus does not exist
Applications of the Delphi Method to Rehabilitation Research

- Delphi has been utilized since the 1950’s in many different professional disciplines and applications
- Literature Review of Delphi studies in rehabilitation counseling; vocational evaluation and life care planning fields.
- One conference paper and eight peer reviewed journal articles.

Review of Delphi Studies in the Field of Rehabilitation

- Hakim and Weinblatt (1993)
- Rubin et al. (1998)
- Currier et al. (2001)
- Thielsen et al. (2001)
- Chan et al. (2003)
- Pomeranz et al. (2006)
- Shaw et al. (2006)
- Vázquez-Ramos (2007)
- Baker and Moon (2008)
The Delphi Technique and Process

- Five phases in carrying out a Delphi study include:
  - Selection
  - Exploration (round one)
  - Evaluation (round two)
  - Reevaluation (round three)
  - Final consensus

Study Design

- To answer the research question, vocational consultant experts were asked to participate in a Delphi study to identify core variables to be considered in completing a vocational earning capacity assessment in a legal-forensic setting.
- To avoid panelist fatigue a three round Delphi study was used to sustain stability and convergence in panelist responses.
Expert Panelist Incentive to Participate

- Panelists completing all three rounds received 2 benefits from their participation in the study

Panelist Qualification

- There is no clear definition of what constitutes a vocational expert
- The legal definition did not provide a sufficient operational definition for establishment of inclusion criterion
- Established 4 inclusion criteria for this study
Expert Panelist Selection

- The knowledge and expertise of each individual panelist contributes to the power and validity of the Delphi process
- Non-probabilistic sampling scheme

Qualification Questionnaire

- Panelists self reported his / her eligibility for the study.
Delphi Round 1

- Collected panelist demographics
- Data collected on Domains and Variables
- Panel was provided with a diagram to conceptually differentiate between domains and variables

Delphi Round 2

- Panelists rated each of the 469 variables identified from Round 1 data analysis on a 7 point Likert type rating scale—“Level of Importance Rating Scale”.
Delphi Round 3

- Following Round 2 ratings, descriptive statistics were calculated for each item.
- For reference, panelists were provided:
  - His / her Round 2 rating for each item.
  - 2 different measures of central tendency.
  - 2 different measures of variability or dispersion.
- Panelists re-rated each of the 469 items.

Delphi Round 3

- Panelists were provided with the group mean and standard deviation for each item.
- Panelists were provided interpretative guidelines.
Delphi Round 3

- Panelists were provided with the group median and interquartile range for each item

Example:
Median: 15
Interquartile Range: 8

The Median is the value that lies in the middle of an ordered set of data.
The interquartile range represents the range of the middle 50% of values in an
ordered set up data.

Expert Panel Size and Response Rate

<table>
<thead>
<tr>
<th>Potential Experts</th>
<th>Qualified Experts</th>
<th>Round 1 Experts</th>
<th>Round 2 Experts</th>
<th>Round 3 Experts</th>
</tr>
</thead>
<tbody>
<tr>
<td>54</td>
<td>50</td>
<td>47</td>
<td>41</td>
<td>38</td>
</tr>
</tbody>
</table>
Panel Demographics: Credentials

Panel Demographics: Memberships
Panel Demographics:
Years of Practice

Panel Demographics:
Areas of Practice
Panel Demographics:
Percent of Caseload Litigated

Retention by the Defense
Panel Demographics: Testimony Experience

![Bar chart showing testimony experience]

Round 3 Item Acceptance Criterion

- 3 different measures were used as the acceptance criteria for the study
- Importance
- Convergence
- Stability
## Results

<table>
<thead>
<tr>
<th>Variable Domain</th>
<th>Variables in Domain</th>
<th>Round 2 Met Criteria</th>
<th>Round 3 Accepted</th>
<th>Acceptance Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical-Functional Capacity</td>
<td>18</td>
<td>16</td>
<td>17</td>
<td>94%</td>
</tr>
<tr>
<td>Labor Market Sampling Information</td>
<td>11</td>
<td>10</td>
<td>10</td>
<td>91%</td>
</tr>
<tr>
<td>Medical-History and Treatment</td>
<td>33</td>
<td>22</td>
<td>29</td>
<td>88%</td>
</tr>
<tr>
<td>Household Activities</td>
<td>5</td>
<td>4</td>
<td>4</td>
<td>80%</td>
</tr>
<tr>
<td>Past Work Experience-Variables Specific to the Job</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>80%</td>
</tr>
<tr>
<td>Education-General Variables</td>
<td>11</td>
<td>8</td>
<td>8</td>
<td>73%</td>
</tr>
<tr>
<td>Past Work Experience-Variables Specific to the Employee</td>
<td>15</td>
<td>11</td>
<td>11</td>
<td>73%</td>
</tr>
<tr>
<td>Work Life Participation</td>
<td>11</td>
<td>6</td>
<td>8</td>
<td>73%</td>
</tr>
<tr>
<td>Behavioural Health</td>
<td>37</td>
<td>24</td>
<td>26</td>
<td>70%</td>
</tr>
<tr>
<td>Rehabilitation Planning &amp; Services</td>
<td>19</td>
<td>11</td>
<td>12</td>
<td>63%</td>
</tr>
<tr>
<td>Job Acquisition and Maintenance</td>
<td>25</td>
<td>14</td>
<td>14</td>
<td>56%</td>
</tr>
<tr>
<td>Activities of Daily Living</td>
<td>10</td>
<td>3</td>
<td>5</td>
<td>50%</td>
</tr>
<tr>
<td>Economic</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>Language Skills</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>50%</td>
</tr>
<tr>
<td>Military Service Experience</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>Transportation</td>
<td>14</td>
<td>2</td>
<td>7</td>
<td>50%</td>
</tr>
<tr>
<td>Transferable Skills</td>
<td>43</td>
<td>17</td>
<td>20</td>
<td>47%</td>
</tr>
<tr>
<td>Professional Resources</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>43%</td>
</tr>
<tr>
<td>Past Work Experience-Variables Specific to the Employer</td>
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<td>6</td>
<td>6</td>
<td>35%</td>
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<tr>
<td>Psychometric Measurement</td>
<td>34</td>
<td>10</td>
<td>11</td>
<td>32%</td>
</tr>
<tr>
<td>Education-Vocational and Apprenticeship</td>
<td>14</td>
<td>4</td>
<td>4</td>
<td>29%</td>
</tr>
<tr>
<td>Labor Market Statistical Information</td>
<td>11</td>
<td>4</td>
<td>3</td>
<td>27%</td>
</tr>
<tr>
<td>Financial</td>
<td>10</td>
<td>2</td>
<td>2</td>
<td>20%</td>
</tr>
<tr>
<td>Socioeconomic</td>
<td>39</td>
<td>5</td>
<td>6</td>
<td>15%</td>
</tr>
<tr>
<td>Legal Jurisdiction</td>
<td>7</td>
<td>3</td>
<td>1</td>
<td>14%</td>
</tr>
<tr>
<td>Avocational Activities</td>
<td>8</td>
<td>0</td>
<td>1</td>
<td>13%</td>
</tr>
<tr>
<td>Education-Compulsory (K-12)</td>
<td>18</td>
<td>4</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>Cultural</td>
<td>16</td>
<td>0</td>
<td>1</td>
<td>.06%</td>
</tr>
</tbody>
</table>

N=29 \quad N=469 \quad N=232

## Results:

### Items Unique to Legal-Forensic Setting

- **Economic Variables**
  - Historical annual earnings of the evaluatee
  - Age of the evaluatee as of the date of loss
Results:
Items Unique to Legal-Forensic Setting

- **Work Life Participation Variables**
  - Evaluate consistency of past work as a reflection of future work participation
  - Evaluate option to engage in part time or full time work
  - Reason for periods of unemployment between jobs (over evaluatees past work history)
  - Medical and behavioral health treatment plan impact on work schedule
  - Average duration of unemployment between jobs (over evaluatees past work history)
  - Evaluatee proximity to retirement eligibility
  - Evaluatee post incident retirement plans
  - Evaluatee pre incident retirement plans

- **Legal Jurisdiction Variables**
  - Deposition transcript(s) of the parties involved in the action or cause
Results:
Unexpected Domain Findings

- **Labor Market Sampling**
  - Intended to provide insight into local labor market conditions within the geographic area most germane to the evaluatee
  - Contributes to the ecological validity of an opinion by providing a “slice of reality” for a specific job and geographical location (Neulicht, 2007)

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Results:
Unexpected Domain Findings

- **Cultural Domain**
  - Rate of acceptance was the lowest rate of acceptance of all domains
  - Results inconsistent with general rehabilitation literature, and literature addressing cultural issues in a forensic application
  - Potential explanations
Study Assumptions

- It is assumed that if a panelist met the study inclusion criteria, he/she possessed the requisite expertise to provide quality input.
- It is assumed that the opinions of the panelists are congruent with and representative of the best practices of the forensic rehabilitation consultant community.
- It is assumed the only effect of the participation incentive was upon the expert panelists' propensity to fully participate in the study.
- It is assumed that each panelist was motivated to fully participate in the study and did so by providing sincere, honest, and full effort.

Limitations of the Study

- Caution should be exercised in applying the study results outside of the limited forensic focus.
- The pre-determined limitation to only 3 Delphi rounds, may have impacted the number of items meeting final acceptance criteria.
- The sample of experts was limited primarily to two professional associations to which forensic vocational experts belong.
Implications of the Study: Structural Data Modeling


Implications of the Study: Self Assessment

- Practicing vocational experts may analyze his / her current practices to determine variables that both met and did not meet acceptance criteria.
Implications of the Study: Training & Education

- Council on Rehabilitation Education (CORE) requires exposure to training in forensic rehabilitation and vocational expert practice
- Post graduate training in forensic rehabilitation
- Study represents a significant empirically based advancement in forensic assessment of vocational earning capacity
- Represents empirically derived foundation of variables that could be useful for training new rehabilitation counselors or advanced practitioners

Recommendations for Future Research

- Additional research is recommended to validate these findings
- Need to analyze relationship between each of the core variables and opinions rendered in actual cases involving the assessment of vocational earning capacity
Study Availability

The complete study is available for no cost download from

http://purl.fcla.edu/fcla/etd/UFE0043197

Thank You!!

Questions and Comments?
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