Where Ag Meets Function: Using The ICF to enhance your program.

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HGTV – UT Gardens Education Director
Upon completion of this session, the participant will be able to

- Describe at least three ways functioning, disability and health play a role in an individual’s ability to work in an agriculture/horticulture setting.

- Identify how they can utilize the ICF in a vocational setting.

- Describe where to access ICF vocational core sets to utilize in their programs.
What is the ICF?

• International Classification of Functioning, Disability and Health.

• Developed by the World Health Organization in 2001

• A companion to International Classification of Diseases
Functioning

• “an umbrella term for body functions, body structures, activities and participation. It denotes the positive aspects of the interaction between an individual (with a health condition) and that individual’s contextual factors (environmental and personal factors).” (WHO 2002)
Disability

• “an umbrella term for impairments, activity limitations and participation restrictions. It denotes the negative aspects of the interaction between an individual (with a health condition) and that individual’s contextual factors (environmental and personal factors).” (WHO 2002)
Health

• “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.” (WHO 1946)
ICF & WHO

• Reflects a change in philosophy.
• Intervene to improve level of functioning or alter the environment?
• A core value of WHO – “equity, inclusion and the aim of all to achieve a life where each person can exploit his or her opportunities to the fullest possible degree.” (Ustun 2003)
Intervention Models

- Medical – disability is a problem of the person directly caused by disease, requires medical care, individual treatment

- Social – disability a socially created problem, demands social action because it is created by an unaccommodating social environment

- Biopsychosocial – uses both medical and social without reducing complex notion of disability into only one aspects
ICF Basics

- Is a classification system, not assessment
- 2 parts
  1. Functioning & Disability
     - Body Functions & Body Structures
     - Activities & Participation
  2. Contextual Factors
     - Environmental Factors
     - Personal Factors
The follow chart sets out the complete list of chapters in the ICF:

<table>
<thead>
<tr>
<th>Body</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Function:</strong></td>
</tr>
<tr>
<td>Mental Functions</td>
</tr>
<tr>
<td>Sensory Functions and Pain</td>
</tr>
<tr>
<td>Voice and Speech Functions</td>
</tr>
<tr>
<td>Functions of the Cardiovascular, Haematological, Immunological and Respiratory Systems</td>
</tr>
<tr>
<td>Functions of the Digestive, Metabolic, Endocrine Systems</td>
</tr>
<tr>
<td>Genitourinary and Reproductive Functions</td>
</tr>
<tr>
<td>Neuromusculoskeletal and Movement-Related Functions</td>
</tr>
<tr>
<td>Functions at the Skin and Related Structures</td>
</tr>
<tr>
<td><strong>Structure:</strong></td>
</tr>
<tr>
<td>Structure of the Nervous System</td>
</tr>
<tr>
<td>The Eye, Ear and Related Structures</td>
</tr>
<tr>
<td>Structures Involved in Voice and Speech</td>
</tr>
<tr>
<td>Structure of the Cardiovascular, Immunological and Respiratory Systems</td>
</tr>
<tr>
<td>Structures Related to the Digestive, Metabolic and Endocrine Systems</td>
</tr>
<tr>
<td>Structure Related to Genitourinary and Reproductive Systems</td>
</tr>
<tr>
<td>Structure Related to Movement</td>
</tr>
<tr>
<td>Skin and Related Structures</td>
</tr>
</tbody>
</table>

| Activities and Participation |
| Learning and Applying Knowledge |
| General Tasks and Demands |
| Communication |
| Mobility |
| Self Care |
| Domestic Life |
| Interpersonal Interactions and Relationships |
| Major Life Areas |
| Community, Social and Civic Life |

| Environmental Factors |
| Products and Technology |
| Natural Environment and Human-Made Changes to Environment |
| Support and Relationships |
| Attitudes |
| Services, Systems and Policies |
ICF Basics

Box 6: The generic qualifier and an example of an ICF-code

ICF codes require the use of one or more qualifiers which denote the magnitude or severity of the problem in question. The problem refers to an impairment, limitation, restriction, or barrier when used in combination with b, s, d or e codes, respectively. Qualifiers are coded as one or more numbers after a decimal point.

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>xxx.0</td>
<td>NO problem</td>
<td>(none, absent, negligible, ...)</td>
</tr>
<tr>
<td>xxx.1</td>
<td>MILD problem</td>
<td>(slight, low, ...)</td>
</tr>
<tr>
<td>xxx.2</td>
<td>MODERATE problem</td>
<td>(medium, fair, ...)</td>
</tr>
<tr>
<td>xxx.3</td>
<td>SEVERE problem</td>
<td>(high, extreme, ...)</td>
</tr>
<tr>
<td>xxx.4</td>
<td>COMPLETE problem</td>
<td>(total, ...)</td>
</tr>
</tbody>
</table>

The letters b, s, d, and e represent the different components and are followed by a numeric code that starts with the chapter number (one digit), followed by the second level (two digits), as well as third and fourth levels (one extra digit each). For example, the following codes indicate a ‘mild’ problem in each case.

- b2.1 Sensory functions and pain (first-level item)
- b210.1 Seeing functions (second-level item)
- b2102.1 Quality of vision (third-level item)
- b21022.1 Contrast sensitivity (fourth-level item)

WHO 2001
<table>
<thead>
<tr>
<th>Construct</th>
<th>First qualifier</th>
<th>Second qualifier</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Body Functions (b)</strong></td>
<td>Generic qualifier with the negative scale used to indicate the extent or magnitude of an impairment</td>
<td>None</td>
</tr>
<tr>
<td>Example: b175.3 to indicate a severe impairment in specific mental functions of language</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Body Structure (s)</strong></td>
<td>Generic qualifier with the negative scale used to indicate the extent or magnitude of an impairment</td>
<td>Used to indicate the nature of the change in the respective body structure</td>
</tr>
<tr>
<td>Example: s730.3 to indicate a severe impairment of the upper extremity</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Activity &amp; Participation (d)</strong></td>
<td>PERFORMANCE Generic qualifier Problem in the person's current environment</td>
<td>CAPACITY Generic qualifier Limitation without assistance</td>
</tr>
<tr>
<td>Example: a2101.1 to indicate mild difficulty with bathing the whole body with the use of assistive devices that are available to the person in his or her current environment</td>
<td>Example: a3101.2 to indicate moderate difficulty with bathing the whole body and implies that there is moderate difficulty without the use of assistive devices or personal help</td>
<td></td>
</tr>
<tr>
<td><strong>Environmental Factors (e)</strong></td>
<td>Generic qualifier, with negative and positive scale to denote extent of barriers and facilitators respectively</td>
<td>None</td>
</tr>
<tr>
<td>Example: e145.2 to indicate that products for education are a moderate barrier. Conversely, e145.2 would indicate that products for education are a moderate facilitator</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Body Functions & Structures

• Functions – physiological aspects of body systems, includes psychological
  – ex. Sight is a function
  – One qualifier

• Structures – anatomical support
  – ex. Eye is the structure
  – Up to 3 qualifiers
Activities & Participation

• Activities – execution of a task or action
• Participation – involvement in a life situation
Activities & Participation cont.

• Two qualifiers:
  
  **Capacity** to perform with a standard environment

  **Performance** to perform real life environment
Environmental factors

• The physical, social and attitudinal environment in which people live and conduct their lives.
Core Sets

• A selection of categories from the full ICF classification
• User-friendly tool
• Developed by rigorous, multi-methods scientific process
• 31 currently developed, mostly based on health conditions
ICF Vocational Rehabilitation Core Set

• Brief Core Set for VR
  – 18 categories

• Comprehensive Core Set for VR
  – 90 categories
Brief Core Set for VR

Body Functions
- b130 – Energy and drive functions
- b152 – Emotional functions
- b164 – Higher-level cognitive functions
- b280 – Sensation of pain
- b455 – Exercise tolerance functions

Activities & Participation
- d155 – Acquiring skills
- d230 – Carrying out daily routine
- d450 – Walking
- d455 – Moving around
- d720 – Complete interpersonal interactions
- d845 – Acquiring, keeping and terminating a job
- d850 – Remunerative employment
- d855 – Non-remunerative employment

Environmental Factors
- e310 – Immediate family
- e330 – People in position of authority
- e580 – Health services, systems and policies
- e590 – Labor and employment services, systems and policies
Brief Core Set for VR

Body Functions

- b164 – Higher-level cognitive functions

Specific mental functions especially dependent on the frontal lobes of the brain, including complex goal-directed behaviors such as decision-making, abstract thinking, planning and carrying out plans, mental flexibility, and deciding which behaviors are appropriate under what circumstances; often called executive functions.

Inclusions: functions of abstraction and organization of ideas; time management, insight and judgement; concept formation, categorization and cognitive flexibility

Exclusions: memory functions (b144); thought functions (b160); mental functions of language (b167); calculation functions (b172)

Activities & Participation

- d845 – Acquiring, keeping and terminating a job

Seeking, finding and choosing employment, being hired and accepting employment, maintaining and advancing through a job, trade, occupation or profession, and leaving a job in an appropriate manner.

Inclusions: seeking employment; preparing a resume or curriculum vitae; contacting employers and preparing interviews; maintaining a job; monitoring one's own work performance; giving notice; and terminating a job

Environmental Factors

- e310 – Immediate family

Individuals related by birth, marriage or other relationship recognized by the culture as immediate family, such as spouses, partners, parents, siblings, children, foster parents, adoptive parents and grandparents.

Exclusions: extended family (e315); personal care providers and personal assistants (e340)
### Brief Core Set for VR

**ACTIVITIES AND PARTICIPATION**

= execution of a task or action by an individual and involvement in a life situation

*How much difficulty does the person have in the...*

*P = performance of...*

*C = capacity in...*

<table>
<thead>
<tr>
<th></th>
<th>No difficulty</th>
<th>Mild difficulty</th>
<th>Moderate difficulty</th>
<th>Severe difficulty</th>
<th>Complete difficulty</th>
<th>Not specified</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>d155</td>
<td>Acquiring skills</td>
<td>P: 0, 1, 2, 3, 4, 8, 9</td>
<td>C: 0, 1, 2, 3, 4, 8, 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Developing basic and complex competencies in integrated sets of actions or tasks so as to initiate and follow through with the acquisition of a skill, such as manipulating tools or playing games like chess.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Inclusion:</strong> acquiring basic and complex skills</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
|     | **Sources of information:**
|     | ☐ Case history ☐ Patient-reported questionnaire ☐ Clinical examination ☐ Technical investigation |
|     | **Description of the problem**
|     | P: |
|     | C: |

<table>
<thead>
<tr>
<th>d230∞</th>
<th>Carrying out daily routine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P: 0, 1, 2, 3, 4, 8, 9</td>
</tr>
<tr>
<td></td>
<td>C: 0, 1, 2, 3, 4, 8, 9</td>
</tr>
<tr>
<td></td>
<td>Carrying out simple or complex and coordinated actions in order to plan, manage and complete the requirements of day-to-day procedures or duties, such as budgeting time and making plans for separate activities throughout the day.</td>
</tr>
<tr>
<td></td>
<td><strong>Inclusions:</strong> managing and completing the daily routine; managing one's own activity level</td>
</tr>
<tr>
<td></td>
<td><strong>Exclusion:</strong> undertaking multiple tasks (d220)</td>
</tr>
</tbody>
</table>
|       | **Sources of information:**
|       | ☐ Case history ☐ Patient-reported questionnaire ☐ Clinical examination ☐ Technical investigation |
Vocational Assessment and ICF

Rehab-Cycle™
Work Rehabilitation Questionnaire

• A patient questionnaire to assess functioning in vocational rehabilitation settings.
• 17 background information questions
• 42 questions in section 2
• Self-administered or interviewer administered
• http://www.myworq.org/
Work Rehabilitation Questionnaire

Questions are matched to ICF codes:

1. d130 - Energy & drive functions
2. b134 - Sleep functions
3. b144 – Memory functions

**PART 2: MAIN SECTION**

Please rate the extent of your problem in the past week from 0 = no problem to 10 = complete problem.

- Check the box that best reflects your situation, the higher the number you assign, the greater the extent of the problem; The lower the number you assign; the lower the extent of the problem.
- Please answer all questions as accurately and completely as possible, even if you feel that the issue is not relevant for you and you don’t have a problem with the respective activity.
- Make sure that your answer refers to your ability to function or do an activity without any help from anybody or without any assistive device.

Overall in the past week, to what extent did you have problems with...

1. … not feeling rested and refreshed during the day?
   - No problem
   - 0 problem
   - 1 problem
   - 2 problem
   - 3 problem
   - 4 problem
   - 5 problem
   - 6 problem
   - 7 problem
   - 8 problem
   - 9 problem
   - 10 Complete problem

2. … sleeping, such as falling asleep, waking up frequently during the night or waking up too early in the morning?
   - No problem
   - 0 problem
   - 1 problem
   - 2 problem
   - 3 problem
   - 4 problem
   - 5 problem
   - 6 problem
   - 7 problem
   - 8 problem
   - 9 problem
   - 10 Complete problem

3. … remembering to do important things?
   - No problem
   - 0 problem
   - 1 problem
   - 2 problem
   - 3 problem
   - 4 problem
   - 5 problem
   - 6 problem
   - 7 problem
   - 8 problem
   - 9 problem
   - 10 Complete problem

xxx.0 NO problem (none, absent, negligible, …) 0-4%
xxx.1 MILD problem (slight, low, …) 5-24%
xxx.2 MODERATE problem (medium, fair, …) 25-49%
xxx.3 SEVERE problem (high, extreme, …) 50-95%
xxx.4 COMPLETE problem (total, …) 96-100%
xxx.8 not specified
xxx.9 not applicable
Let’s see how it works.

- ICF Voc Rehab Core Set
- Agriculture Worksite Assessment Tool for Farmers & Ranchers with Physical Disabilities
Agricultural Worksite Assessment Tool for Farmers and Ranchers with Physical Disabilities

I. PERSONAL DATA

A. About the client

Name: ___________________________ SSN: ___________________________
Address: ___________________________ County: ___________________________
City/State/Zip: ___________________________ Date of birth: __/__/____
Phone: ___________________________ Cell Phone: ___________________________ Fax: ___________________________
E-mail: ___________________________
Directions to farm/ranch: ___________________________

Marital status: ___________________________ Name of spouse: ___________________________
Names and ages of children at home: ___________________________

Occupation:

____ Full-time farmer/rancher
____ Part-time farmer/rancher with primary income from farm/ranch
____ Part-time farmer/rancher with primary income from off-farm/ranch job
Farm spouse

Acquiring, keeping and terminating a job

Renumerative employment

Non-renumerative employment

Real. Life. Solutions.
IV. GENERAL FARM/RANCH MAINTENANCE

A. The farm/ranch shop

1. Can client enter the shop independently? _Yes _No
   Describe any barriers (e.g., steps, narrow doorway, heavy door) and problems encountered:

   ________________________________

2. Type of floor the shop has (e.g., concrete, dirt, crushed stone) and any mobility-related problems encountered:

   ________________________________

3. Can client reach stationary power tools and service equipment? _Yes _No
   If no, why not?

   ________________________________

4. Can client perform maintenance tasks on the tool bench? _Yes _No
   If no, why not?

   ________________________________

5. Is the shop:
   - heated for year-round use? _Yes _No
   - equipped with toilet facilities? _Yes _No
   - adequately lighted? _Yes _No
   - adequately ventilated? _Yes _No
   - equipped with telephone? _Yes _No
   - equipped with first-aid kit? _Yes _No
   - equipped with fire extinguisher? _Yes _No

   ACTIVITIES AND PARTICIPATION
   = execution of a task or action by an individual and involvement in a life situation

   How much difficulty does the person have in the...
   P = performance of...
   C = capacity in...

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<th>Severe difficulty</th>
<th>Complete difficulty</th>
<th>Not specified</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>d450 Walking</td>
<td>0 1 2 3 4 8 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
   d455 Moving around
   d465 Moving around using equipment
D. Equipment seating and transfer

1. Describe any difficulties related to equipment seating and transferring to the seat, and any modifications made to improve seating comfort and safety during operation and transfer.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Difficulty</th>
<th>Modifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

E. Equipment controls

1. For the self-propelled units the client uses most frequently, indicate which controls are difficult to reach or operate, describe specific problems, and identify any modifications that have been made.

   a. Make and model: ____________________________

<table>
<thead>
<tr>
<th>Control</th>
<th>Difficulties and modifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>__Steering</td>
<td></td>
</tr>
<tr>
<td>__Clutch</td>
<td></td>
</tr>
<tr>
<td>__Brakes</td>
<td></td>
</tr>
</tbody>
</table>

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**E135 Products and technology for employment**

**E120 Products and technology for personal indoor and outdoor mobility and transportation**
3. Functional limitations as described by client and/or referral source. (Include exact measurements if known—e.g., Db of hearing loss; visual acuity; lifting limits; range of motion; specific limitations on standing, sitting, transferring, carrying, walking, bending, stooping, balance, etc.)

4. Type of medical insurance (e.g., Medicare, Medicaid, Medicare supplement, commercial policy):

b230 Hearing functions  
b210 Seeing functions  
d430 Lifting and carrying objects

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**BODY FUNCTIONS**  
= physiological functions of body systems (including psychological functions)  

*How much impairment does the person have in...*

<table>
<thead>
<tr>
<th>b117</th>
<th>Intellectual functions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>General mental functions, required to understand and constructively integrate the various mental functions, including all cognitive functions and their development over the life span. Inclusions: functions of intellectual growth; intellectual retardation, mental retardation, dementia</td>
</tr>
<tr>
<td></td>
<td>Exclusions: memory functions (b144); thought functions (b160); higher-level cognitive functions (b164)</td>
</tr>
</tbody>
</table>

**Sources of information:**

- [ ] Case history  
- [ ] Patient-reported questionnaire  
- [ ] Clinical examination  
- [ ] Technical investigation

**Description of the problem:**
Let’s see how it works.

• Activity time
Examples of UT Gardens Programs

• Future
Examples of UT Gardens Programs

• TSD
Examples of UT Gardens Programs

• Austin East CDC
• Heritage High School
Where to find ICF?

• http://www.who.int/classifications/icf/en/
• http://www.icf-core-sets.org/
• http://apps.who.int/classifications/icfbrowser/
Where to find ICF?

References

• WHO (2002) Towards a Common Language for Functioning, Disability and Health ICF. http://www.who.int/classifications/icf/icfbeginnersguide.pdf?ua=1