HOW TO MAKE A LIFE WORTH LIVING – EVEN IF YOU CAN’T REMEMBER WHAT HAPPENED 20 MINUTES AGO

Sarah Downing, Roby Miller, Michael Milligan, Amanda Muise, Amee Le, Dr. Carolyn Lemsky
Life Worth Living

What makes a life worth living?
Life Worth Living
(The PERMA Model)

Positive Emotion
- Peace,
- Pleasure,
- Inspiration,
- Curiosity,
- Hope,
- Love

Engagement
- Career,
- Hobbies & Activities

Positive Relationships
- Family,
- Friends,
- Neighbors,
- Colleagues

Meaning
- Family
- Random Acts of Kindness
- Volunteering

Accomplishment/Achievement
- Mastering a Skill,
- Achieving Goals,
- Winning Competitive Events
Case Study – AI Adventure
The Injury

- Age 30
- GCS 3/15, Coma >21 days
- Open Brain Injury (multiple skull fractures and areas of bleeding)
- Multiple orthopedic injuries
  - Transverse T7-9 fractures, multiple rib fractures and wrist fractures
- Pneumothorax
Challenges Presented by Injury

- Profound memory impairment
- Spasticity and ataxia affecting gait and speech
- Moderate to severe impairments of fine motor control bilaterally
- Cognitive slowing
- Executive impairments
- Limited awareness of his disabilities
Case Study – AI Adventure
Unable to Remember

- What is it like to be unable to remember?
  - Your last conversation with someone...
  - Where and how you met...
  - How or why you have a bad feeling about a situation...
  - Why and how your role changed...
Challenges at the Start

- Unaware of what he was and wasn’t doing for himself
- Refusing supports and new activities
- Socially withdrawn
- Depressed mood, angry
- Irritability related to uncertainty, feeling pushed, direct offers of support, corrections
- Magnified negative events and experiences
BIG BOSS

Why am I not allowed to chicken, beef, and steak?
Case Study – AI Adventure
Different Memory Systems

Declarative Memory
Knowing What

Semantic
(Facts, Meanings, Knowledge of the World)

Episodic
(Experiences & Events)

Procedural Memory
Knowing How

Skills & Habits

Conditioned Responses
Main Goal of Intervention

- Make up for impaired declarative memory using procedural memory

- Errorless Learning
  - Represents a set of teaching procedures designed to reduce incorrect responding as the individual gains mastery over the task
  - Avoid aversions
Memory Link

- Memory Link is an errorless learning approach used to teach an individual with memory problems to use an electronic personal device.

- Baycrest’s program focuses on individuals with memory problems and few other or mild cognitive impairments (e.g. people who have had strokes).

- CHIRS adapted this program to apply to people with more global brain injuries.
<table>
<thead>
<tr>
<th>Date</th>
<th>Session</th>
<th>Stage I</th>
<th>Stage II</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Trial</th>
<th>Turn On</th>
<th>Slide</th>
<th>Tap Calendar</th>
<th>Tap month</th>
<th>Day of month</th>
<th>Tap Day</th>
<th>Tap <em>on</em></th>
<th>Type</th>
<th>Tap Location</th>
<th>Type</th>
<th>Tap Starts Ends</th>
<th>Scroll Time</th>
<th>Tap Ends</th>
<th>Scroll Time</th>
<th>Tap Done</th>
<th>Tap Alert</th>
<th>Tap min</th>
<th>Tap Done 2</th>
<th>Tap Done</th>
<th>Tap Today</th>
<th>Tap Square Button</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total scores**

<table>
<thead>
<tr>
<th>Trial</th>
<th>Slide</th>
<th>View/Read Event</th>
<th>Tap Arrow (Tool)</th>
<th>Tap Square Button</th>
<th>Turn Off</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Cuing Hierarchy:**

- **4** = Full support (demonstration/Explanation)
- **3** = Verbal direction and physical pointer
- **2** = Physical point OR Verbal Prompt
- **1** = Correct question / Verbal Nudge
- **0** = Spontaneous activity (no support)
Affect

Stimulus

Unfamiliar
- Negative Response
- Neutral or No Response
- Positive Response

Familiar
- Negative Response
- Neutral or No Response
- Positive Response

---

---
Intervention

- Memory Link & cTech Training
  - + Affect
- Daily Orientation to Calendar
- Building Positive Routine
- Increased Exposure
  - Participation in New Social Activities
- Novel Journal Entries
  - Reliving Experiences as Mood Support

Acceptance Increases
Skiing

Family Involved

Talking & Watching Skiing

Ski Gear

Skiing, Success, & FUN

Accepting Refusals

Skiing Events in Calendar

Journaling

Pictures

Parties & Sailing
Case Study – AI Adventure
Outcomes
Ethical Considerations

- Family involved in making decisions
- Refusals are always accepted
- Support is tailored to client interests
- Avoid development of an aversion and/or refusal
- Develop + affect towards meaningful activities
Life Worth Living

Positive Emotion | Engagement | Positive Relationships | Meaning | Achievement/Accomplishment

Outcome
- Happiness, Laughter, Enjoyment, Peace
- Managing Schedule, New Skills & Activities
- FaceTime Family, Roommates, CHIRS Community
- Helping Out, Recreation & Leisure, Employment
- Health/Fitness, Tackling New Adventures

Injury
- Anger & Frustration
- Loses Career, Increased Support
- Loss of Partner/Family Caregivers
- Medical/Rehabilitation
- Unaware of Strengths & Skills

Intervention
- Memory Link & cTech Training
- Errorless Learning
- Identity Mapping
- Behavioural Activation
- Antecedent Management

Text:
- Managing Schedule, New Skills & Activities
- FaceTime Family, Roommates, CHIRS Community
- Helping Out, Recreation & Leisure, Employment
- Health/Fitness, Tackling New Adventures
It Works!
Question Period

- Questions?
References


References


- Seligman, M. E. (2002). Positive psychology, positive prevention, and positive therapy. Handbook of positive psychology, 2, 3-12.


Thank You!