

## Video Modeling: A Tool for Improving Awareness and Self Regulation for Individuals with Acquired Brain Injuries

Jerry K. Hoepner, PhD, CCC-SLP  
University of Wisconsin – Eau Claire

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## Disclosures

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- **Financial:** Jerry Hoepner received conference registration, travel and lodging
- **Non-financial:** Jerry Hoepner is a member of ANCDs and the right hemisphere damage writing group; an affiliate of Aphasia Access and interviewer for the Aphasia Access Conversations Podcast; Associate Coordinator of the ASHA SIG 20: Counseling, and Editor of Teaching and Learning in Communication Sciences and Disorders (TLCSD)

Hoepner, 2023

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## Learning outcomes

1

Attendees will identify the rationale for using video modeling

2

Attendees will identify prompting sequences and hierarchies for video self-modeling

3

Attendees will identify motivational interviewing micro-skills (OARS) and how they support video self-modeling

4

Attendees will identify strategies to scaffold accurate self-assessment

3

## Who's in the audience?

OT

PT

SLP

Nursing

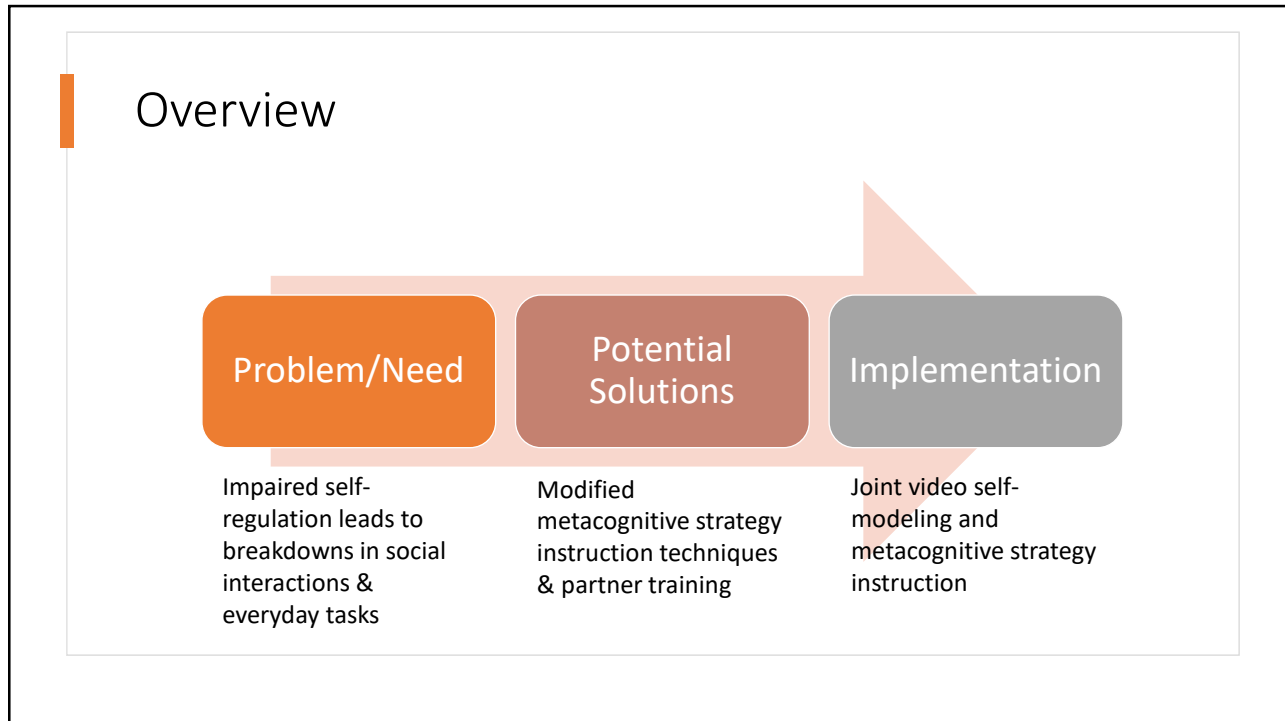
Social workers

Neuropsychology

Individuals with  
TBI

Care partners

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## The challenge...

Incidence rates of communication problems commonly above 75%  
(MacDonald, 2017)

Pervasive & long-term  
(Ponsford et al., 2014)

Dahlberg et al., 2006; Galski et al., 1998; Meulenbroek & Turkstra, 2015; Struchen et al., 2008

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## Cognitive-communication interventions



Individualized, person-centered



Context-sensitive



Goal and outcome-driven



Opportunities for practice and feedback



Groups and telerehabilitation

Finch et al, 2016; Togher et al., 2014; 2023

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### Problems with retrospective & decontextualized judgments

- Places high demands on working memory, which consumes the fuel for higher level executive functions
- Judgments are not accurate
  - Overall accuracy declines
  - Specificity declines
  - Flexibility declines
- Many/most judgments are made by the clinician



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# Interactional/Conversational Assessments

Typically, retrospective ratings by person with TBI and a partner

- ≈ lots of disagreement

Old assumption – person with TBI inaccurate...

Video support increases accuracy for both

- ≈ 87% consensus
- ≈ 67% agreement on positive

Hoepner & Turkstra, 2013

**LA TROBE COMMUNICATION QUESTIONNAIRE** by Jacinta Douglas, Christine Bracy & Pamela Snow

LCQ-Close Other Form: Frequency and Change

Name: \_\_\_\_\_ Age: \_\_\_\_\_ Gender: M E Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Patient Name/ID#: \_\_\_\_\_ Relationship to patient: \_\_\_\_\_

**Instructions:** The following questions ask about aspects of \_\_\_\_\_ communication. For every question please circle the response which best answers the question, where:  
**1 = Never or Rarely 2 = Sometimes 3 = Often 4 = Usually or Always**

The questions also ask you about **change** in these aspects of communication since \_\_\_\_\_.  
 For every question please circle the response which best answers the question, where:  
**+ = happens More 0 = No change - = happens Less** since \_\_\_\_\_.

Make sure you consider **all** the communication situations encountered in daily life (e.g. family, social and work situations).

WHEN TALKING TO OTHERS DOES _____:	FREQUENCY				CHANGE		
	1	2	3	4	+	0	-
1. Leave out important details?	1	2	3	4	+	0	-
2. Use a lot of vague or empty words such as "you know what I mean" instead of the right word?	1	2	3	4	+	0	-
3. Go over and over the same ground in conversation?	1	2	3	4	+	0	-
4. Switch to a different topic of conversation too quickly?	1	2	3	4	+	0	-
5. Need a long time to think before answering the other person?	1	2	3	4	+	0	-
6. Find it hard to look at the other speaker?	1	2	3	4	+	0	-

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# Problems & Potential Solutions

Retrospection ≠ accurate

- Neither people with TBI nor their partners are good at making retrospective judgments (Hoepner & Turkstra, 2013)

Memory + emotional bias ↓ accuracy

- Everyone has difficulties making retrospective judgments (Fiske, 1980; Matt, Vazquez, & Campbell, 1992)

Direct review ↑ accuracy

- Strong consensus when people with TBI and their partners make direct judgments viewing videos (Hoepner & Turkstra, 2013)

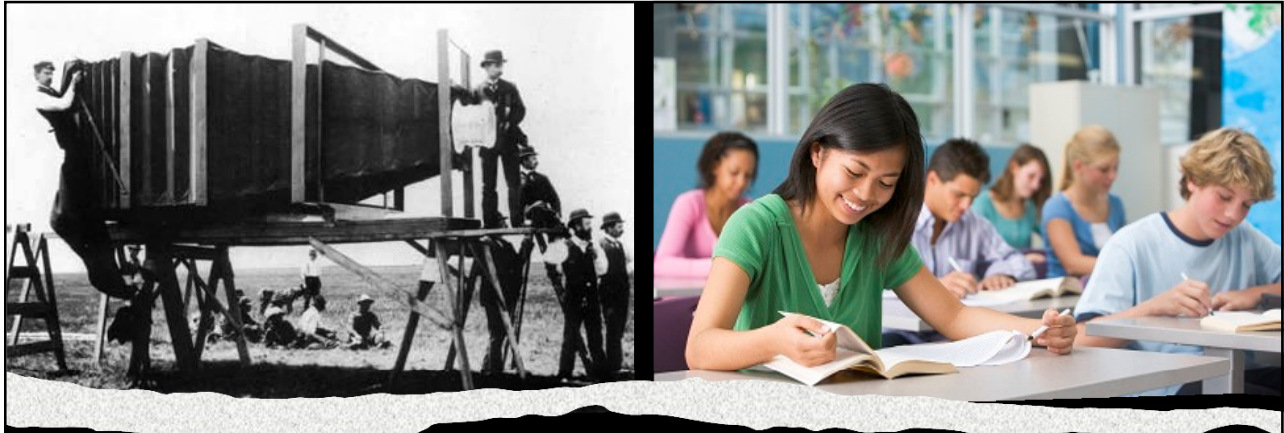
Joint is better for both

- There is It's effective to train interactional behaviors jointly (Togher et al., 2013; 2016)



Cream et al., 2010; Hoepner et al., 2021; Hoepner & Olson, 2018; Hoepner, Sell, & Kooiman, 2015; McGraw-Hunter et al., 2006; Ortiz et al., 2012; Prater et al., 2011; Rietdijk et al., 2022; Rietdijk et al., 2020; Rietdijk et al., 2019; Schmidt et al., 2012; Togher et al., 2013


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Video-self modeling:  
The good ole days...

Act natural...

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KEEP  
CALM  
AND  
DO IT  
RIGHT

## Neuroplasticity KEY


- The more you get it right → the more you get it right next time → the more you get it right again
- If you get it wrong → you're more likely to get it wrong the next time → the more likely you are to keep getting it wrong

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## Education




What does it look like to get it right?




What does a good conversation look like?




What does good baking "look" like?




What does success look like at work?




What is the best way to paddle my canoe?




Gait training?



Arm exercises?



Hydrotherapy?



Return to school?

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## Key elements of video modeling

1

Capitalize on support of video evidence to support recall and foster self-correction (self-confrontation)

2

Use videos of others to initially begin to recognize what success (good, positive, accurate, etc.) moments and struggles (errors, inaccuracies, problems, etc.)

3

Encourage the use of metaphors to help people conceptualize complex behaviors

4

Set and measure goals collaboratively through goal attainment scales

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Hard to deny  
the evidence

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### Video (other) modeling (VOM)

View a video of a situation you encounter regularly

Identify what the people in the video did well

Identify what the people in the video could improve

It's easier to make assessments of others than ourselves

A video inset showing a group of people sitting around a table in a restaurant or cafe, engaged in conversation.

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## Video self modeling (VSM)



Record “homework”  
videos at home



Review videos jointly



Pause to prompt  
self-assessments



Open-ended Qs and  
scaffold as needed

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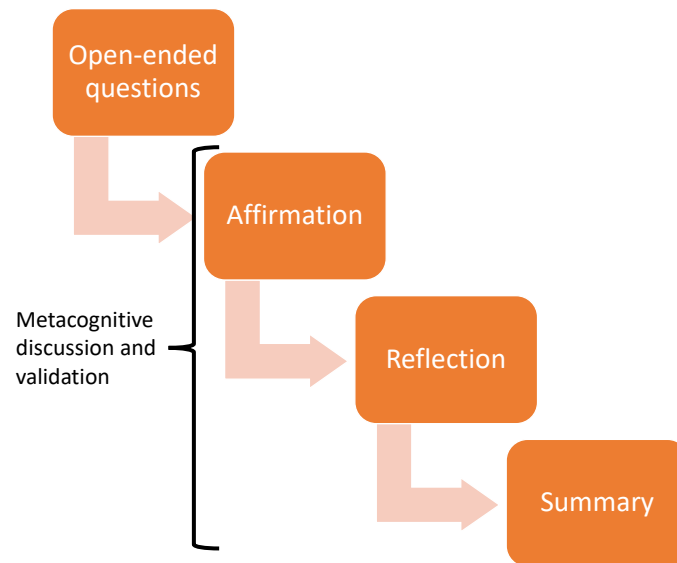
## Motivational Interviewing

- Miller and Rollnick (2013) emphasize the use of self-confrontation through self-reflection, rather than a righting response that throws it back in their face.
- Self-confrontation can be prompted through open-ended questions and our responses should affirm their feelings, rather than our interpretations.
- It also requires a safe, supportive context without fear of judgment.

Hoepner, 2023

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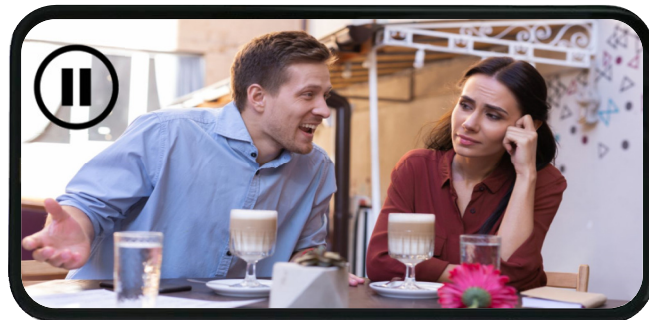
To elicit self-assessments:  
use OARS



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Catch yourself in the act!

- What went well?
- What improved?
- What didn't go well?
- What could still improve?
- What could you try next time?



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## Goal Attainment Scales Made Easier

Set goals together, measure/monitor them together, ask them to recall their goals each week

Goal: This goal should be framed in the client/family's words or words they agree upon and understand		
+2	5	Dream a little – if you woke up tomorrow morning and everything was great, this is what it would look like (equidistant from better than expected)
+1	4	Better than expected – equal increment from expected outcome level
0	3	Expected outcome – equal increment above baseline
-1	2	Baseline – this is how you're performing at the outset
-2	1	Worsened – equidistant increment below baseline

*In Their  
Own Words*



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## Tips for setting GAS goals

1

Set the baseline level first, in the client's own words. You may have to write them but make sure they're in agreement and fully understand each goal criteria

2

Set the pie in the sky ceiling next

3

Work backwards between ceiling and baseline to establish equal intervals

4

Set the regression below baseline last, following the equal intervals from the other levels

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## Tips for monitoring & measuring goals

Have person recall goals at the outset of sessions (usually takes 3-4 sessions to learn all of their goals)

After the session, have the person identify their performance

Ask questions to corroborate and validate their assessment (e.g., "What makes your performance a 2?" or "Explain to me why you think it's a 2.")

If the person is off on their rating, reviewing the criteria can help them measure more objectively and adjust their rating

There shouldn't be any confrontation or dispute on your part, simply self-confrontation prompted by asking them to review the criteria/ explain their rating



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## Use your goals to set new goals

- When you empower the person to be responsible for setting and measuring their own goals, they begin to identify more goals – positive momentum



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## Results?

More awareness of what good looks like so you can be intentional about achieving it

Sometimes people are not aware of when they do something well

More awareness of problems and room for improvement

Overall, video modeling research shows that it helps people increase desirable behaviors and decrease less desirable behaviors

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## Goal attainment scales are BOOSTERS

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Increase recall and awareness of goals

02

Help people to recognize change

03

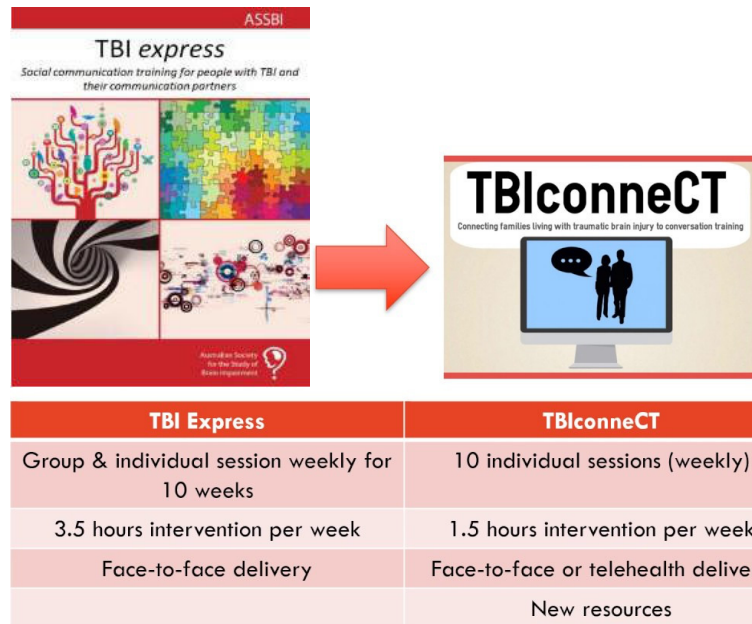
Help people to become more accurate with their self-assessments



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# Video Modeling Programs

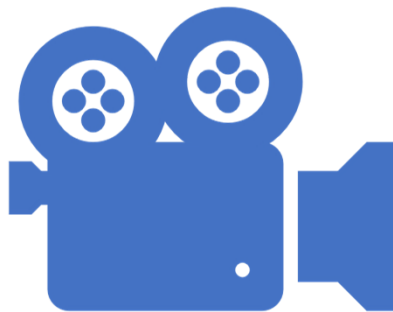
Rietdijk et al., 2022; Rietdijk et al., 2020; Rietdijk et al., 2019



The University of Sydney

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## TBI Connect video examples



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## Collaboration don'ts

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## Collaboration do's

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30

Not  
elaborating

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31

Elaborating

---



32

Not  
Collaborating

---




33

Collaborating

---



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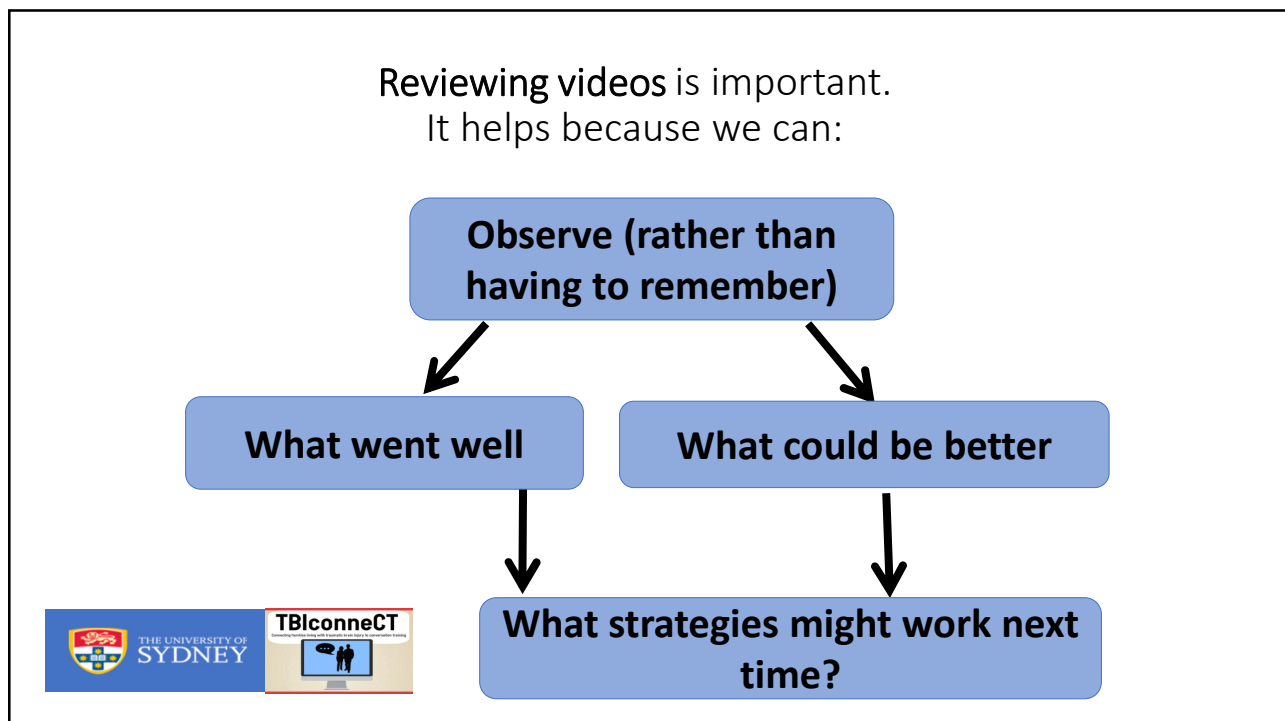


# Social Brain Toolkit

- Convers-ABI-lity (coming soon): <https://abi-communication-lab.sydney.edu.au/convers-abi-lity-for-people-with-abi/>
- Social-ABI-lity: <https://abi-communication-lab.sydney.edu.au/courses/social-abi-lity/>
- Interact-ABI-lity: <https://abi-communication-lab.sydney.edu.au/courses/interact-abi-lity/>

Avramovic et al., 2023; Rietdijk et al., 2022; Rietdijk et al., 2020; Rietdijk et al., 2019

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In this conversation, how **engaged** did you appear?

1 2 3 4 5 6 7 8 9 10

Completed disengaged

Completely engaged

What could increase this next time?



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In this interaction, what was the impact of **gaps in memory**?

1 2 3 4 5 6 7 8 9 10

No impact

Huge impact

What could reduce this next time?

(Gaps in memory can reduce through use of strategies by either person, or through improvement in functioning)



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## Metaphors (TBI Connect, TBI Express, Convers-ABI-lity)

- Pass the ball, share the ball (don't hold the ball, try not to drop the ball)
- Stay on track (don't get off track)
- Doing my share
- Flat tire, out of gas

Rietdijk et al., 2022; Rietdijk et al., 2020; Rietdijk et al., 2019

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## Motivation & Awareness

- People with ABI may lack motivation, struggle with depression and frustration
- They may recognize that things really stink after their ABI
- But may not fully understand their abilities, impact of their limitations, and what to do about it

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## GAS Scales



Ask the client what their goals are (to promote memory and awareness – typically takes 3-4 sessions to know goals)



Review them



Remember, they just spent the lion's share of the session talking about these in context



Ask clients to rate performance in today's session



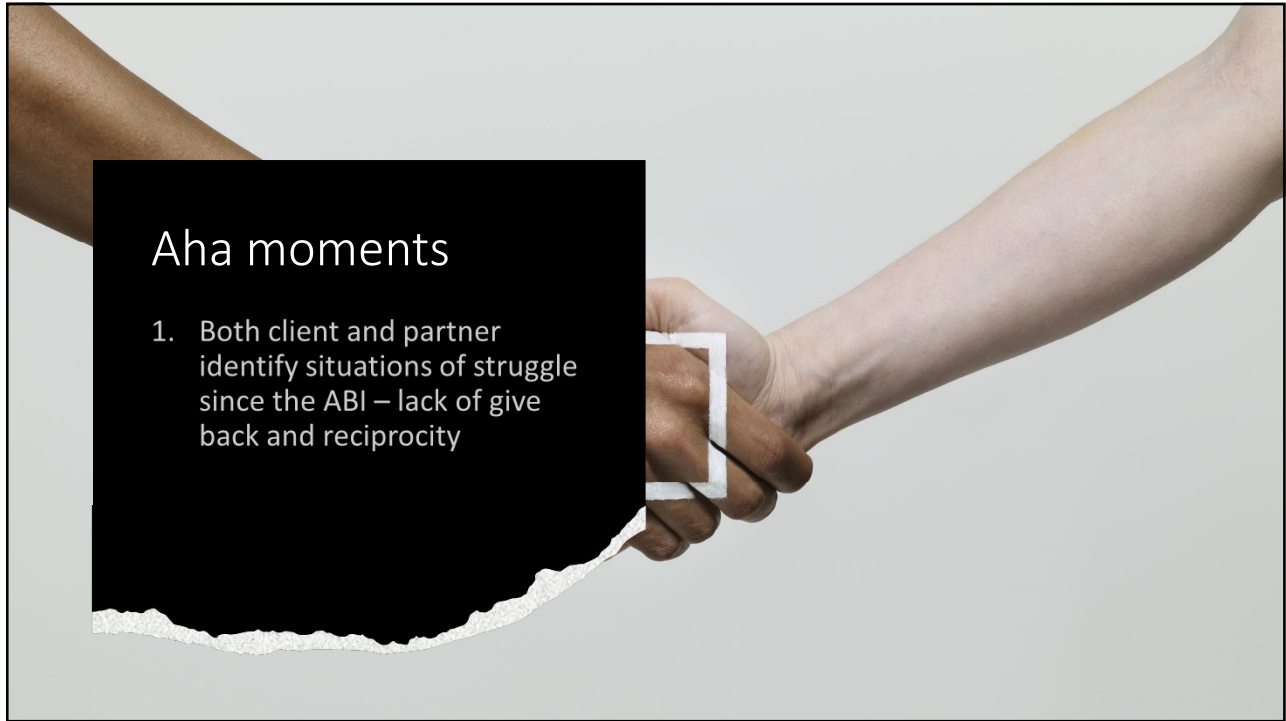
Compare notes

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Goal 1 – Responding more accurately to questions, including a more meaningful response (not just automatic phrases)

GAS Level	Criteria
+2 – The best outcome possible – back to status before injury	You never or rarely struggle answer the question in the way you mean to or with the words you want to use
+1 – More than expected but not back to status before injury	You seldom struggle to answer the question in the way you mean to or with the words you want to use
0 Expected outcome – if things improved from baseline of this intervention	Occasionally , you do not answer the question in the way you mean to or with the words you want to use
-1 – Level you started at in the beginning of this intervention	Often, you do not answer the question in the way you mean to or with the words you want to use
-2 – Worse than when you started this intervention	You never answer the question the question in the way you mean to or with the words you want to use (e.g., this might happen after a seizure)

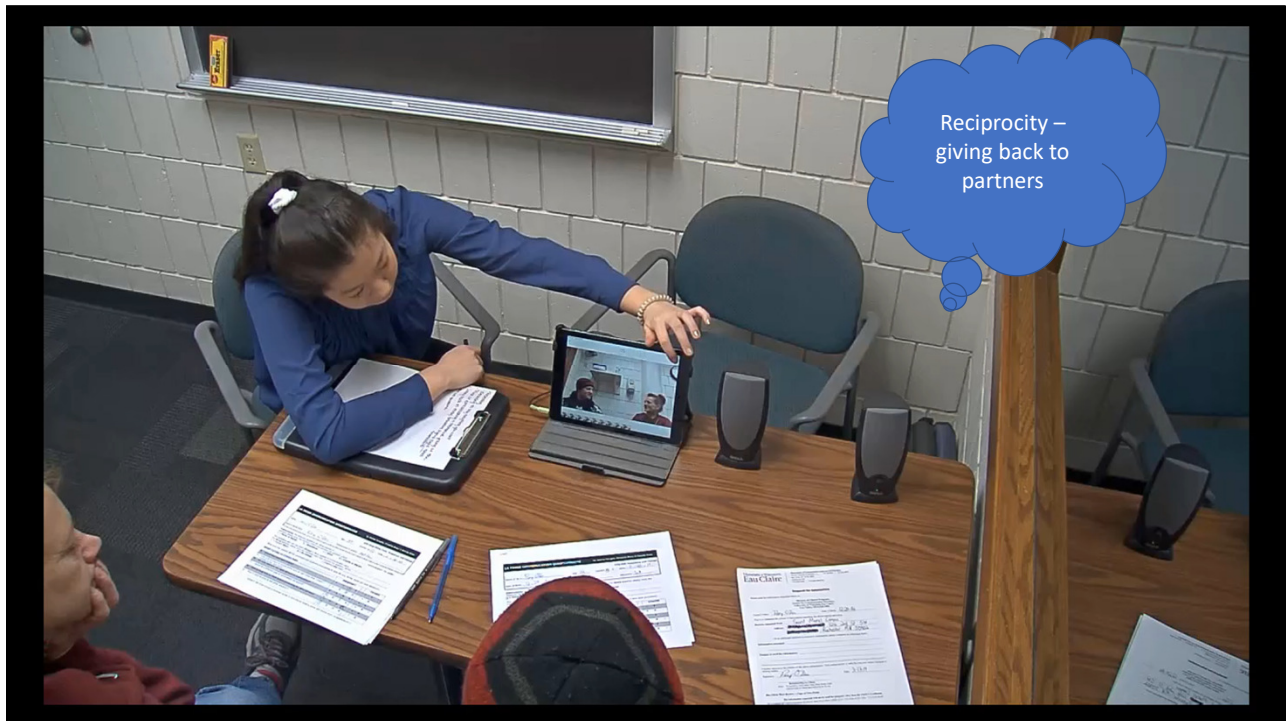
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## Aha moments

1. Both client and partner identify situations of struggle since the ABI – lack of give back and reciprocity

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Reciprocity – giving back to partners

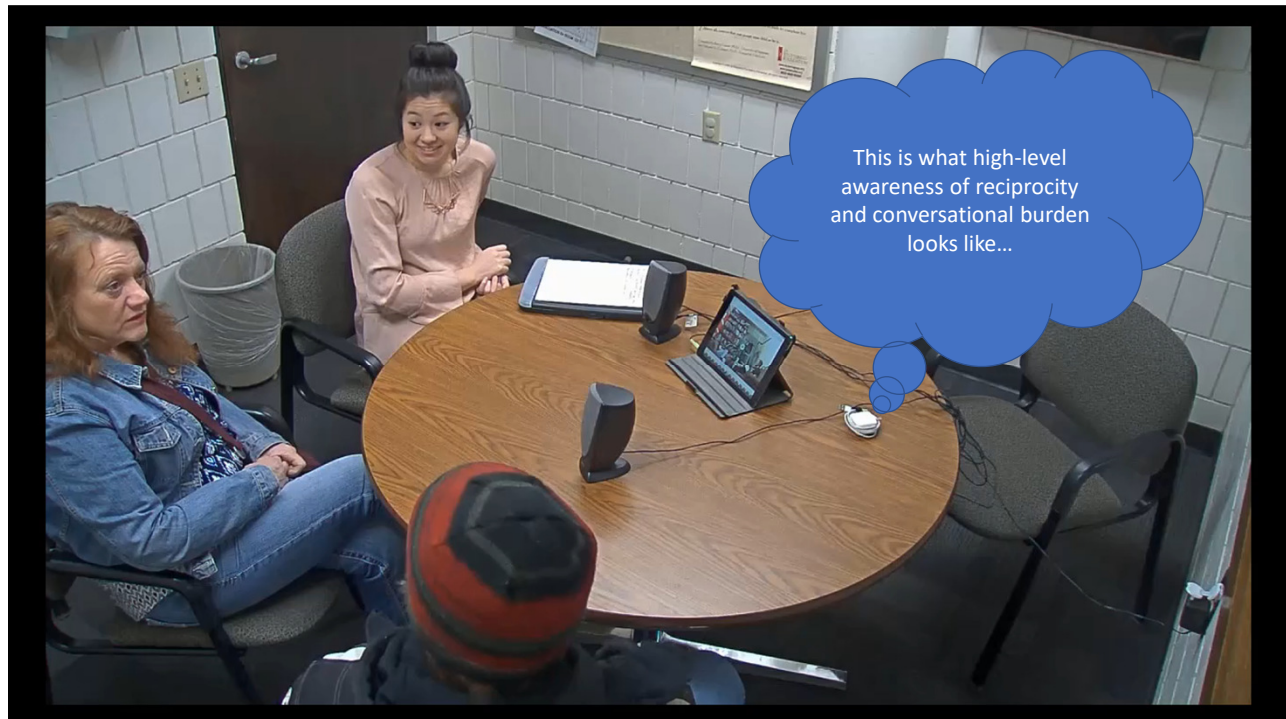
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## Facilitating a metacognitive discussion about goals

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1. Client discusses status prior to ABI
2. Client discusses current status and limitations to his social interactions (i.e., not asking others about themselves, being egocentric and self-focused)
3. Note: his partner has been frustrated that he doesn't give back, ask about her ~ a goal they're working on [previous video]
4. Now, see the change bubbling up 😊

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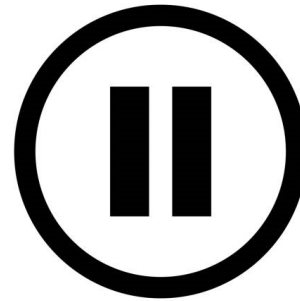


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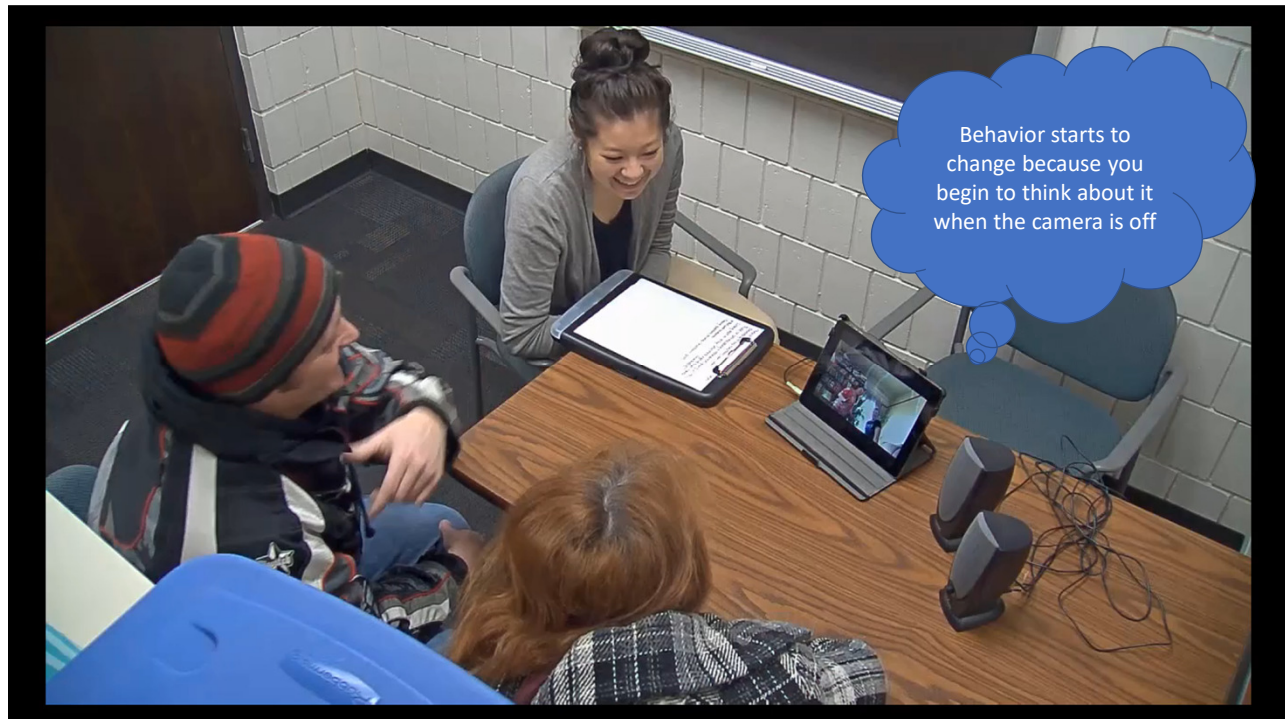


## Pausing the video...

1. Open ended question about the video they just watched
2. Both reflect on change in behaviors simply because they know the video is on
  - I have people say, "I'm only good because I know the video is on!" I say, "Knock yourself out! If you can do it then, you can do it anytime." POSITIVE behavior yields more positive behavior
3. Reflection on conversations outside of therapy sessions (GENERALIZATION)





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Play it again...



Scaffolding through playing again



Partner gaining awareness of goals and scaffolding in context

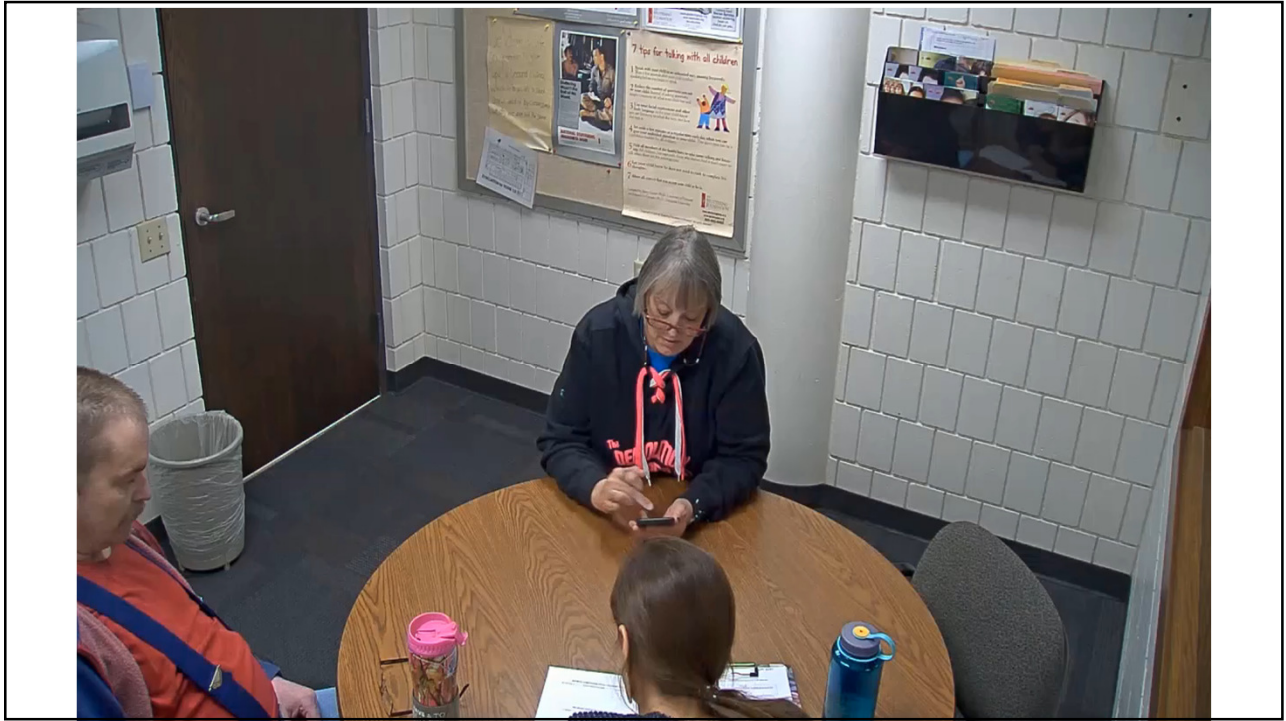


Client still learning 😊

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## Internalization of strategies

1. Disclaimer – he’s hypophonic – one of our other goals 😊
2. But, he’s asking her questions instead of just telling her about how his day is going
3. Awareness is improving

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## The age-old pitfall still exists....

- It's all too easy to fall into the pitfall of answering/making a judgment for them [see video on next slide]
  - If we ensure a means of response through rating scales, written choice, replaying the video, the right types of prompts... they CAN respond
  - Specificity depends on the right form of support and prompting – rating scales, choices, etc.

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## Wrap-up

1. Fosters self-assessment and self-confrontation
2. Improves self awareness and changes behaviors for client & partner
3. Monitoring own goals changes awareness of goals and progress towards goals

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